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ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY,

DELIVERED AT

Guy's Hospital

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

LECTURE I.

CONSIDERATION OF THE SUBJECT.

GENTLEMEN,—My first duty is to endeavour to make quite clear to you what pathology is. This may seem to you to be an easy task enough. But we shall soon find out its difficulty, and in trying to solve the difficulty we must undertako some very general and wide considerations.

The literal meaning of the word pathology you will at once see is too wide. If we take it to mean *the science of disease*, its range then embraces the symptoms of diseases, the changes in the body produced by them, and their causes; and these branches of so comprehensive a conception of pathology would diverge beyond our compass.

We must divest this wide motion of pathology of some more extrinsic members, and limit the *science of disease* to such aspects of the study of diseases as are not taken up by other branches of Medical inquiry, such as nosology, morbid anatomy, and etiology.

But plainly it is needful for us, before thus dealing boldly with the *science of disease*, and cutting it up into segments, to be sure we know what it is that we are about to handle so freely. The science of disease. *What is a disease?* This is the first question. It seems easy, but it proves to he one of those things which everybody knows and nobody can say.

The doctors have not so powerful a voice in determining the meaning of the word as the general public have. They know what they mean by it. They mean their aches, and pains, and dangers. And they mean you to mean the things they want you to cure, and for their side of the matter that is quite enough of a notion. But for ours who have to meet and combat these diseases, it becomes necessary to get a clear view of our antagonists, that we may if possible know where and how to confront them.

To urge you further to this inquiry I would get you to reflect in this way. Most men who deal with things want to use them and alter them, but all the while to preserve them. We, on the other hand, who deal with diseases, want to destroy them. But to use a thing wants less knowledge of it than is required to destroy it; to use it, you take it as it is for granted; to destroy it, you must have some acquaintance with the plan of its maintenance, always supposing that you cannot mechanically crush it, or cut it to pieces.

To understand the difficulty in clearly grasping the general notion of what a disease is, we must see that diseases are not things, but changes in a thing. Those sciences which, like chemistry or zoology, deal with material substances, must always have a vast advantage over pathology. The thing which the chemist considers, lies for every one to handle. The pathologist very imperfectly watches the changes that make up a disease, and as he is watching they disappear, and he cannot gather them all together, to get once and decisively a completed idea of them. And hence he is in danger of restricting his attention in his study too much to the tangible products of diseases, dwelling on their characters as if they were things precious in themselves; whereas it is *not as things but as changes* that the products of disease are to be viewed. I repeat it, we must avoid mineralogising over tumours and tubercles, as if they were the ores of valuable metals. The process of their production, *that is our concern*.

Now, seeing that any disagreeable change in one's frame or its actions will be popularly called a disease, and that the popular voice determines for itself, and will have this for its meaning of disease, let us try and make a more accurate and scientific definition. If we say "*disease is bad health*," that only stands our difficulty on the other leg as obdurate as ever. For then we have to answer the question, "*What is health?*" and that is, perhaps, worse.

I will take two definitions out of text-books, and we shall see by their little success how difficult it is to define disease. First, we will take the view given in Dr. Guy's "Hooper's Vade Mecum." Here it says that disease exists "when any structure of the body is changed not by violence, and when function is too active, torpid, or altered." Now, on this view, we should get some curious additions to the list of diseases. I will mention only one as a structure of the body changed not by violence: on this definition, the development of the testes becomes a disease. Take next Dr. Russell Reynolds's definition; according to it a disease is any condition of the organism which limits life in either its powers, enjoyments, or duration. On this view, very oddly, the non-development of the testes is a disease, as by it the powers at least of life are limited, and we should thus all be little patients until 15, or thereabouts.

I will then try and make another definition. We will say that a disease is anything wrong in the *life* of all or part of the body—let me underline *life*, though you may think it makes the definition rather vague. I will lay stress upon it, because, if we get over the first apparent vagueness of this view of disease, and stand to see disease as altered life, then we shall, I think, more easily get over the first stumbling block offered in our path to the more detailed consideration of disease—I mean the old and universal, and, in some sense or other, always necessary, division of diseases into structural and functional—for if we see disease as altered life, then whatever the relations of structure and function are in the history of life, such will be the relations of structure and function in the history of disease. If we can clearly comprehend how structure stands related to function in the several activities of our different organs, then we can apprehend the relation of them in the disorders of those organs.

Now, it is a very important and a very interesting inquiry that asks what is the relation of structure to function in vital phenomena. And in the answer we shall early find that the relation of structure to function in the tissues depends on whether it is direct, arising in the tissue, or indirect, depending on the act of some other part of the frame.

We should first beware of the danger of thinking things *in nature* to be separate in the same way as they are in our thoughts.

Life, we say, consists of two things: the maintenance of a form and the performance of certain functions, and we cannot help at first conceiving these as very distinct, because the form of all machineries such as we see the body to be is so very different a thing from the work of those machineries.

But Nature works in a very different way to the way we work; indeed, she works in a very opposite way. We in our manufactures take separate things and put them together to make one. Nature in her processes takes a thing that is all of a kind, homogeneous, and makes the one develop into two or more. We put separate things together; Nature separates things that rise together. And hence the very framework of our language is calculated to mislead us when we apply it to describe the processes of nature. For instance, we say, the biceps is *inserted* upon a certain spot of the radius; but inserted, a word that implies a bygone act of insertion, is not applicable, for there never was such an act. The biceps and the radius grew as they are, and to say that one is inserted upon the other is to make a directly wrong statement which, however, we cannot well avoid, but which we cannot too clearly guard against, lest it induce us to overlook the true nature of vital acts, and to look on living bodies as if they were altogether comparable to manufactured machineries.

The distinction in our bodies of the machine and its work is very well up to a certain point. The mechanical functions of support or of movement in our mechanism are as simply the produce of the levers and powers as are the movements of the cranks and wheels of a steam-engine, and so in dealing with the action of the heart or of the limbs any difficulty about structure and function seems absurd.

But then these mechanical structures and functions are themselves only secondary things, and they arise out of vital operations of a kind that more nearly concern pathology. A structure, like muscle, tendon, or bone, which takes its function from nerve or other tissue, may certainly show functional imperfection through the failure of its nerve, and so you get functional paralysis of a sound limb, etc. But when we come to tissues whose functions arise in themselves, then we find the structure of the part and its function so connected that we do not easily discriminate between them. The production of the gland cell and of its secretion is but one continuous act; so the production of a nerve-cell and of its powers of radiation; so the production of a muscle-fibre and of its powers of contraction. We have to learn to see in the maintenance of each tissue-element not a set and permanent product, such a thing as we ourselves make, but a shape taken by a stream of matter which,

as it were, flows in that form, and which, in passing through that shape puts in play certain forces, which are vital functions; while it is still kept to its shape during the continuous change of material that the stream brings and takes away. *It is action taking shape, as in the infinitive the verb is held in the form and to the laws of a substantive*, so that the shape of a living tissue is like the form of a candle-flame, which is defined enough so that an artist can paint it, while every particle is always changing. In the candle-flame the zones are structure, the light and heat, etc., are function. The stream of oil is food, and the gases are excreta. But try and obtain these separated, you cannot do so. The form of the flame you cannot get without the stream of oil into the wick, nor can you have it without light and heat being given off all around, while certain vapours pass up into the air.

We use the term flame for such a body as this. We cannot separate the shape from the stream, the heat, and the light. Our own frames, too, are slow fires, lit up and extinguished. We use the word *fire* in general for combustion, with evolution of light and heat, *but we do not suppose fire to be a force*. We call the phenomena of tissue formation and function *life*, but *so neither do we suppose life to be a force*. In either case there is an inexplicable collection of forces set free, and in either case a form is produced which, in the case of fire, is flame, in the case of life is tissue. Flame is the tissue of fire. Tissue is the flame of life. So far the form and substance and the action are all one.

Now, if instead of a candle we take a catherine wheel or some other device to produce movement as well as flame, then we may make the motion serve to turn wheels or work levers. The movements which we should so produce we could guide, control, and measure, and the machineries we used and their movements would be mechanical structures with mechanical functions, which we should recognise as well as we recognise the mechanical structure and functions of our limbs.

But the chemical and vital functions were to the structures producing them just like heat and light are to flame—something belonging to structure and necessary in the formation of it, and so not to be thought of as separate from it, following its every variation because they are a part of its nature, and incapable of varying except with its variations.

Now, to apply these considerations to the question of the existence of structural diseases and functional diseases, we see that in all the mechanical, chemical, and vital phenomena or functions that accompany the formation or maintenance of some tissues, there can be no separation of these chemical and vital functions from the form or structure. The structure and the function must arise, vary, and cease together, like the *colour* and the *form* of a rainbow.

So far in healthy life structure and function are not separate, and, viewing disease as altered life, so far in disease also structural and functional must coincide.

But when we leave this remote and difficult relation of structure and function in the origin of tissue, and turn to the mechanical use of the organs and levers and tubes that are made, then structural and functional diseases are obviously enough distinct. In this part of the question we wonder how there ever was any difficulty. We can very easily understand a sound machinery working disorderly through want of oil or restraint of some part, and should call such a disturbance of sound parts functional, and contrast it naturally with fracture or displacement or wearing away of portions that would render the machinery unsound structurally.

So in general I would say that a part sound in its structure may fail or be disturbed in its function so far as its mechanical work is concerned, but that in the properly vital acts no separation of structural from functional disease can be recognised. A sound arm may be paralysed functionally as far as its mechanical machinery, but when asking whether such paralysis could arise without corresponding changes in the structure of the brain and nerve that should supply motion, we cannot allow that to be possible.

In short, we only speak of functional diseases as contrasted with structural when we are talking of superficial and mechanical aspects of cases, and not when we consider the real origin of the disease in the seat of its production. Functional disease means disease without coarse and mechanical change, not disease without any corresponding structural variation, for that we have seen to be impossible.

Whether we admit purely functional diseases depend entirely then, on whether we are considering diseases in a practical or in an abstract or strict way. Strictly, no functional disease can be without corresponding variation of structure, temporary or permanent. But there is a practical gain in allowing the division. For the functions of all organs and tissues may fail or be disturbed through or with changes of structure that we cannot recognise because of their minuteness or remoteness, and generally, when functions vary in this way without plainly evident structural change, then the disorders produced are of a temporary and less significant kind; though this is not always so, as we may see in tetanus, in exophthalmic cachexia, epilepsy, and other conditions. But generally changes that are imperceptible are less permanent, and so we understand by a functional disease, without structural change, one that may be expected soon to recover; by a structural disease one that will resist our Medical efforts, and it is from this prognostic point of view that the division is practically convenient.

But I have as yet merely touched the difficulty of getting a clear notion of what a disease is. To face and comprehend the difficulty, let us cast a glance over such a group of cases as we meet in any day's practice.

We shall soon see that *what we know* about the disease is very different in different cases. In one woman who bitterly complains of pain in her side, that complaint of pain is all we can find. You are obliged to trust her account to believe at all in her disease; you may call it neuralgia. In another patient you may meet choreic movements, or vomiting, or asthma, and here there is such disorder of function that you yourself can know that something in bodily functions is at fault. But you cannot find any fault of structure in any part, and cannot show it to be structural. In yet another you have not only the *complaint* of pain in the side, and hurried breathing and cough, with other functional disturbance, but you find on examination that the lung is breaking down, and you know the disease—say as phthisis, and think of it as a structural change. In yet another you not only have the complaint, the functional disturbance, and the structural change, but you find the presence of a cause which is plainly the origin of the whole. Thus in lead palsy there will be the weakness of his hands as the patient's complaint; the paralysis of muscles causing indifference to the interrupted current, as functional disturbance; wasting of muscles, as structural change; and lead detectible along the gums as the cause of it all.

Now, what have these different cases in common that we can *fix on as the disease in each?* Why, the only thing common to all is the patient's account of his troubles; and that, as I said at first, is the real definition of disease. It is what the public will always mean by it, and they will always beat us in giving the word its meaning.

Then, for our present use and purpose, diseases must be classed according to the degree of our knowledge of them. What we know are these respectively in different cases—(1) complaint, (2) symptom, (3) change, (4) cause; and generally where we know the second we know the first, and where we know the third we know the second, and so on. So that these appear to us as stages of knowledge in disease, and we so naturally see them as stages that in those diseases where the symptoms, and not the change of structure, are known, we seek to extend our knowledge from the symptom to the change of structure, and when we know both these we seek on to discover the cause; and no doubt when we have finally acquired the knowledge of the changes that cause all symptoms, and the causes that give rise to the changes, then the knowledge of disease will be complete; and for that future we are all endeavouring, and must continue to endeavour. But meantime while our ignorance confines us often to symptoms, still more often stops us at morbid change, and even rarely allows us to arrive at the cause, we must order our view of disease to suit such partial knowledge. And, in truth, we do so, and have one science of symptoms—

Symptomatology, *Nosology*.

And another of structural changes—

Pathology or Morbid Anatomy.

And another of the causes of disease—

Etiology.

Now, the first science is strictly clinical, and it makes the great part of the teaching of the Medicine lecturer. This part of the science of disease we shall never touch upon.

The third science—that of etiology—is a very wide science, for cause is a very wide term, and the study of causes of disease will very often lead you out a long way from the consideration of the disease itself; for causes are apt to be very unlike their effects—things of a very different kind. This science of etiology bears more upon hygiene, which, I am sure, you will be glad to hear you are going to be lectured on in a new course to be shortly established. We have nothing to do with it here.

There remains, then, the second science of morbid structural changes, to which pathology is a suitable name. We have brought *pathology* down to a very simple and comprehensible meaning, and can see clearly its relation to nosology and etiology.

Pathology takes up the consideration of the structural changes discoverable in the tissues. But we must consider it for the last time yet a little further. Every science of natural objects has at least two branches very different from each other. There is first the science of them as they are met in Nature. The superficial, or natural, or practical science of them, such as mineralogy of rocks, zoology of animals, botany of plants, and, 2nd, the knowledge of their composition and structure, analytical or comparative, or theoretical science, such as chemistry of rocks or comparative anatomy of animals and plants.

In just the same way pathology as the science of morbid changes, divides into two different sciences which we are apt at first to confuse together, but which we ought to see are very distinct from each other. The first would take these changes grouped together as we find them in nature, in the wards or in the post-mortem room; we will call it natural pathology. It would compare and arrange and classify the groups of morbid changes which we meet in the several cases with the object of knowing the laws of association of morbid changes, so that we may acquire the power of anticipating justly on the discovery of any one, what will be its relatives? An anatomical disease in this light may be a very complex thing, but experience will enable you to get a good comprehensive view of such complete diseases until, in many instances, you will be able to tell beforehand all the other changes on hearing of one of them.

Let me give you an instance. We will take a common case of gouty kidney: you will find in such a case—

1. The contracted kindney.
2. Hypertrophied arteries.
3. Enlarged heart.
4. Hæmorrhages.
5. Urate of soda in the joints.

All these will go together, with perhaps others less constant which I could enumerate, to make up the complete case as we meet with it in the patient. So with a case of obstructive mitral disease we should meet—

1. Mitral contraction.
2. Hypertrophy of right heart.
3. Splenized lung.
4. Nutmeg liver.
5. Pulmonary apoplexy.
6. Hardened spleen, etc.
7. Anarsarca, etc.,

And so on with other diseases. Now, the knowledge of these associations—of natural pathology—is not merely important. I would venture to say that it is the part of a man's knowledge which may be chosen to estimate his practical value as a Physician. It gives him the ability of going out to recognise, to meet, to prevent changes which, without this knowledge, he would ignore. It is the pride of the Medical Profession in our day. It makes the difference between modern and mediæval physic. This knowledge was obtained by diligent study of the associations of diseased changes in the dead body, and it can only be continued in the same way; and further, the way the whole Profession went to acquire it, the same way must every single student go. It is to be got in the post-mortem room, and nowhere else. I shall take this opportunity of urging upon all a constant attendance in the post-mortem room. But natural pathology, as I say, can only be got by practical study, and it is not the pathology that I am going to consider in these lectures. We will concern ourselves here with the second kind of anatomical pathology—namely, that which analyses the different morbid changes, and studies their intrinsic nature, so as to find and compare the elements of disease. This sort of knowledge stands to natural (post-mortem room) pathology as chemistry does to mineralogy, or as comparative anatomy does to zoology.

The usefulness of this kind of knowledge is one that underlies and supports practical application. You may, in a manner, have a knowledge of natural pathology without it; but if you neglect the consideration of the intrinsic nature and comparative characters of the several changes revealed to superficial observation in the post-mortem room, you will have no means of forming opinions about those changes, however well you know them, and you will be at the mercy of every one who has obtained knowledge and conviction as to the real nature of such several changes.

Without agreeing as to what inflammation is, and how it stands related to tubercle and tumour products in their several varieties, we cannot understand each other in the post-mortem room.

Now, having fully considered what it is we are to study, let us look at it more closely. We shall call it comparative or *analytical pathology*, meaning thereby *the study and comparison of the different kinds of diseased changes that occur in the tissues, with the object of knowing their structural characters and modes of origin.* Such a study is not altogether new to your lecture course. The lecturer on Physiology touches upon it, and so does the lecturer on Medicine—the first to show the ill results of derangements in the functions he describes, and the second to observe a basis of material facts in his narratives of flying symptoms.

But each of these lecturers considers comparative pathology casually, and without regard to its own continuity, or to its individual importance as a great science. In truth, it has no superior in importance among the sciences of Medicine.

Comparative pathology, then, is a history of the changes that occur in the tissues, severally considered, analysed, and studied; to arrange these changes in their several kinds according to their real nature. There always has been a comparative pathology of some sort. It is what the public credit us for when, in setting down the difference between the Doctor and a sharp-sighted, attentive, and experienced nurse, they rely on the Doctor more because "he knows the case," as they say.

ORIGINAL COMMUNICATIONS.

THE PROXIMATE CAUSE OF HÆMORRHAGE INTO THE BRAIN AND RETINA IN CASES OF CHRONIC BRIGHT'S DISEASE.

By GEORGE JOHNSON, M.D.
Physician to King's College Hospital.

It is a well known fact that hæmorrhage into the brain and into the retina is a common accident in the advanced stages of chronic Bright's disease. The explanation which I have hitherto given of this occurrence has been the following.(a) The muscular walls of the minute arteries in most of the tissues, including those of the brain, are much hypertrophied. Hypertrophy of muscular tissue is a physiological result of its long continued over-action. Excessive contraction of the minute systemic arteries impedes the onward movement of the blood, and calls for increased efforts on the part of the heart to carry on the circulation. Hence, hypertrophy of the left ventricle. One obvious result of the struggle between the excessive cardiac propelling force and the excessive arterial resistance must be to cause increased strain and pressure upon the arterial walls, and so to increase the risk of hæmorrhage, consequent on rupture of one or more minute arteries. The small pin-head aneurisms of the minute arteries of the brain in some cases of cerebral hæmorrhage, indicate a giving way of the arterial walls under the strain to which they have been subjected, which must obviously render them very liable to rupture.

That this is the true account of some hæmorrhages into the brain, and into the eye in cases of Bright's disease, is extremely probable, but a case that has recently occurred under my care in the Hospital suggests a somewhat different explanation of some hæmorrhages. A man, 65 years of age, had left hemiplegia and chronic Bright's disease. After death a moderate-sized clot was found in the right optic thalamus. The kidneys were small and granular. The left ventricle of the heart was hypertrophied; the valves were healthy; the minute arteries, unfortunately, were examined in only two tissues—in the subcutaneous tissue and in the brain. The walls of the subcutaneous arteries were much hypertrophied, while those of the pia mater presented no appearance of hypertrophy; they were, so far as we could judge, of the normal thickness.

We have observed, in cases of chronic Bright's disease with hypertrophy of the left ventricle, that while, as a rule, the minute arteries in all the tissues examined—the kidneys, the pia mater, the subcutaneous tissue, the muscles, and the mucous membrane of the bowels—have their muscular walls hypertrophied, the hypertrophy of the arteries of different tissues in the same subject is sometimes unequal.

Now, it is manifest that when hypertrophy of the left ventricle has resulted from excessive resistance to the circula-

(a) See the British Medical Journal, April 16, 1870.

tion occasioned by the contraction of the minute systemic arteries, if the arteries in any one tissue or organ contract and strengthen their walls in a less degree than those of other tissues, the capillaries of that tissue or organ will be subjected to more than the ordinary degree of pressure, and will in the same degree be more liable to rupture.

So it is probable that the cerebral hæmorrhage in the case to which I have just now referred may have resulted from rupture of the capillaries; and that the immediate cause of this rupture was the excessive pressure upon the cerebral capillaries, due to the fact that the propelling force of the hypertrophied left ventricle was not counterbalanced by an equivalent hypertrophy and consequent resisting power in the minute cerebral arteries.

The question to be determined is this—In cases of hæmorrhage into the brain or retina, associated with chronic Bright's disease and hypertrophy of the left ventricle, are the walls of the minute arteries of the brain and retina, as a rule, hypertrophied in an equal degree with the arteries in other tissues—for example, those of the subcutaneous and mucous tissues? Or is there little or no hypertrophy of the cerebral and retinal arteries? The absence of hypertrophy of the minute arteries in the eye and brain would indicate the probability that hæmorrhage has resulted from rupture of capillaries consequent on the excessive injecting force of the hypertrophied left ventricle. It is obvious that, with equal hypertrophy of the left ventricle, the strain upon the capillaries will be in inverse proportion to the arterial resistance; also that the strain upon the arteries will bear a direct relation to the resistance offered by the partial closure of the minute arterial stopcocks. It is, of course, admitted that degeneration of the coats of the blood-vessels, whether capillaries or arteries, will render them liable to rupture even without undue strain upon their walls.

In order to work out the details of this interesting pathological problem, the co-operation of many independent observers is needed, and I very earnestly invite this co-operation.

ON THE USE OF RAW MEAT IN DIARRHŒA AND DYSPEPSIA.

By ROBERT DRUITT, M.R.C.P. &c.

I LEARNED the use of raw meat as a remedy for diarrhœa, from the late estimable Professor Trousseau, during a visit paid to his clinique at the Hôpital des Enfans Malades in 1851. Since that time I have had abundant opportunities of proving its efficacy, and although I know that it is largely used by some Physicians, it may not be unseasonable at the present time to call attention to it, and to encourage its more general use.

Let me begin with a few words on the mode of preparing it. The meat used may be either mutton or beef—say a tit-bit of the loin of mutton, or of the fillet or other tender part of beef. This must be submitted to a process either of pounding, or of scraping, so as to get out the red soft muscular substance, as free as possible from all fat and fibre. The muscular substance so prepared forms a soft pink pulp, and even a good-sized piece of raw meat seems to yield wonderfully little by comparison with the parts that are rejected. It must be a pulp, giving no feeling of resistance when squeezed between the fingers.

The modes of administration are many. It may be given by itself, and this way is best in the case of young children. Very young infants may suck it from the end of their nurse's finger, and most of them take it greedily enough in this way. Children who are older, say from 2 to 5, may swallow it if dusted over with white sugar. Older persons may take it conveniently if diffused through a little strong beef-tea. But there is another way for which I am indebted to a lady who has made very large use of this remedy in the case of her invalid daughters, and which is known amongst a pretty wide circle as a *jellied chop*. This consists in diffusing the meat pulp through a stiff meat jelly, and allowing it to cool in a shape. This is eaten like a spice, and is very nice to any one whose prejudices are not aroused by the notion of rawness. Salt and other condiments may be added at discretion.

The cases in which raw meat has peculiar efficacy, are those in which other food passes undigested, and adds to the irritation of bowels in a state of diarrhœa. It seems to furnish the most efficient kind of nutriment with least inconvenience from bulk or other quality, and to be digested and absorbed with as little fæcal residuum as possible. Still there must be something more about it than this; for the liquid essence of beef will not take its place, neither will cooked meat.

First amongst the cases in which it is useful may be mentioned any acute cases of infantile diarrhœa, especially the infantile "cholera" of summer. No matter what medicines and what other kind of food may be used, I believe raw meat to be in itself both a remedy for the diarrhœa and a nutriment that may keep the child alive till the disease passes off.

Secondly, in the chronic diarrhœas of children, arising from scanty food, or what comes to the same thing, food which cannot be digested, and which consequently passes the bowels as a foreign offending substance, here the raw meat acts as food and medicine.

In the habitual diarrhœa associated with "marasmus"—that is, with the superficial ulceration of the intestinal mucous membrane, and enlarged mesenteric glands of strumous children—the raw meat, especially in the form of the "jellied chop," is of most especial service. It is curious to see in cases of this sort how absolutely the stomach sometimes refuses to act upon the food put into it, so that meat, milk, etc., may be recognised unaltered in the fæces. It is just in these cases that the raw meat shows itself susceptible of quick digestion in the stomach. The cases which the ancients called *lienteria*, or *intestinorum lævitas*, and which were designated in England in the last century "lubricity of the intestines," in which stomach and bowels are so irritable that they pass on and eject the food before it has had time to be dissolved and absorbed—are equally benefited by the use of raw meat.

Lastly, there are the cases of the obstinate vomiting of pregnancy, whether attended with diarrhœa or not. This is a kind of case in which no remedy is unwelcome or superfluous. I cannot take to myself the credit of suggesting it, for the mother of a young pregnant lady who was in imminent danger of exhaustion from vomiting had witnessed the good effects of this food in the case of another daughter who died of ulceration of the intestines, and gave it of her own accord. But I can bear testimony to the fact that the raw meat was taken readily and kept down when almost every other food was loathed and vomited, and I consider the patient's safety largely due to it.

There are other cases of atrophy, dyspepsia, and malnutrition in which I have found it useful. I should like also to say a few words on some other uses of meat, cooked as well as raw; but at present I wish mainly to call the attention of my Medical brethren to its efficacy in diarrhœa, which may be expected to be the cause of an abundant mortality of infants during the next two months.

37, Hertford-street.

AMPUTATION THROUGH THE KNEE-JOINT.

By C. F. MAUNDER, F.R.C.S.,
Surgeon to the London Hospital.

AMPUTATION through the knee-joint having been lately revived as a substitute for removal of the leg either below or above that articulation, I determined to test its value should a suitable case present itself. The advocates of the method are of opinion that it produces less shock than either removal of the limb at the lower third of the thigh or at the upper third of the leg; that there is less risk of pyæmia, of exfoliation, and of osteo-myelitis because the bone not being severed, neither its cancellous tissue nor medullary cavity are injured or opened. On the other hand, opponents to this operation would probably say acute inflammation of a large and extensive synovial membrane, with its serious effects upon the system generally, will arise and be followed by a prolonged and exhaustive suppuration. Also the cartilage will probably exfoliate, and this process will delay both the healing of the wound and a restoration to health. Under these latter circumstances there will be great danger of retraction of flap or flaps, consequent exposure of the condyles of the femur, and probably a second amputation will be necessary in order to remove these latter. Thus the time of the patient would be wasted, his suffering would be prolonged, and the risk to life doubled.

The case selected was that of a female, about fifty years of age, the subject of an extensive sloughing ulcer occupying the lower two-thirds of the leg, and in an extreme state of exhaustion, both resulting apparently from want of food. While in Hospital cleanliness and a nutritious diet had little or no effect on the character of the ulcer, and, at the earnest entreaty of the patient, I at length consented to operate. I feared lest

the shock of amputation would kill her. An anterior flap was made from the front of the leg long enough to wrap round the condyles, and a short convex posterior flap was also cut and dissected off the deep fascia. The anterior flap was dissected up to near the level of the line of the articulation, and then the leg was severed from the femur by passing the knife through the articulation from before backwards. At the moment that the hamstring tendons were cut the structures at the back of the femur became enormously retracted—to the extent of from three to four inches—in a longitudinal direction. Knowing full well the tendency to retraction in this region I thought to allow for it by cutting, as already noted, a short posterior skin flap. Then, again, the patient's knee had been contracted for many weeks, the leg being almost bent at a right angle to the thigh; and consequently I judged (falsely as it appeared) that the skin would have already contracted almost as much as it could do by reason of this flexed position of the leg. At first sight it appeared to be necessary to remove both condyles and patella, in order that the anterior flap might be carried back to meet the posterior. However, on examination, it was found that, although the retraction in the middle line of the limb could not be remedied, still the skin on either side was lax enough to allow of the flaps coming together in such a manner that a T shaped, instead of a linear, wound resulted. The popliteal vein seemed inclined to bleed, and was ligatured. The arteries were twisted.

Progress of the Case.—A short time after the operation the patient showed little or no sign of shock, and on the following day no one would have guessed that she had been submitted to amputation twenty-four hours before. She progressed uninterruptedly well, and in due time left the Hospital able to bear the firm pressure of my hand upon the end of the stump, and with the wound, T shaped, not quite healed, situated at the back of the condyles. The patella was only slightly retracted, and was freely movable. A few days after the operation there was some little puffiness round about the patella, and the synovial pouch probably became only slightly inflamed, and certainly did not suppurate. An accident which I had foreseen, and endeavoured to guard against, happened. In the first place the stump was wrapped in cotton wool, and loosely rolled with flannel, that no pressure of any kind might act upon it, and then the attendants were warned that if the limb rested on the back of the condyles the margin of the anterior flap would slough. Notwithstanding all the precaution taken by me, a portion of the edge of the anterior flap did slough to the extent of some half inch or more in depth, and thus cicatrisation was delayed. That it was due to direct pressure I have no doubt, because the flap sloughed only on either side of its middle line, leaving a tongue-shaped portion at this point which had corresponded to the fossa between the condyles and where it had escaped pressure.

In all capital operations—amputations, for example—the Surgeon's first thought must be for the life of his patient, his second to preserve as useful a limb as possible. I will assume that amputation through the knee fulfils the first consideration, as I believe it will be found to do, and as was the case most certainly in the above example. How is disarticulation to be effected? Often there will be no choice, the condition of the soft parts about the joint dictating the method. The circular makes a hollow cup in which secretions will lodge and putrefy; the method by long posterior flap involves the section of a great mass of muscle, the presence of large nerves which may suffer from pressure, a large suppurating surface, and a tendency of the flap to fall away and expose the condyles; it is undesirable. Lateral flaps might be taken, but none is so convenient as the method by a long anterior and a short posterior. The great desideratum in all amputations is that the patient shall be able to bear his weight upon the end of the stump; and to favour this the extremity of the bone must correspond with sound skin, not with cicatricial tissue. The latter method satisfies this demand. The end of the bone is covered by skin accustomed to pressure, the anterior flap falls naturally into position and secretions can readily escape. Thus then sound principles of Surgery are followed; but there is one other requisite to insure success, and that is, care and attention to the position of the stump during the progress of repair. A Surgeon cannot be always with his patient, and notwithstanding repeated advice and warning given to the attendants an accident may happen as in my case—sloughing of the free end of the long flap from pressure. This possibility leads to the consideration of the question; shall a single long flap be cut at the risk of sloughing from carelessness, or shall the chance of sloughing be met by preserving a short posterior flap also? I incline to the latter method, since by it also, where so long an anterior flap is not requisite more amputations may possibly be performed. In this operation large processes of bone are to be preserved, and to prevent their subsequent exposure at the sides of the bases of the flaps, the actual line of the bases of these flaps should be a finger's breadth below the level of the articulation. Also, the anterior flap should be wide, being begun and terminated on either side towards the popliteal space.

The operation consists in the formation of a long wide anterior flap, having a base as above mentioned, and an extremity not less than two and a half inches below the tubercle of the tibia when the limb is extended. This having been dissected up, without scoring of its deep surface, to near the joint level, a narrow-bladed knife should traverse the articulation from before backwards, either after the posterior flap has been cut and dissected up or prior to its formation from within outwards. The posterior flap should extend as low as a point corresponding to the level of the lower end of the tubercle of the tibia.

N.B.—If from any cause the flap or flaps should prove too short, the removal by the saw of that portion of each condyle which projects backwards beyond the level of the posterior surface of the femur just above, will be equivalent to adding one inch in length to the flaps.

While disarticulating, care should be taken not to injure the articular cartilage; the patella should scarcely be seen, and the synovial sac should not be unnecessarily disturbed. The interarticular fibro-cartilages should be taken away with the tibia. When cutting the posterior flap from within outwards the position of the head of the fibula must be remembered, lest it prove an obstacle to the free use of the knife. The leg is to be flexed during disarticulation as in excision of the knee; and also an assistant with both hands must retract the integuments from about the condyles.

To repeat: The chief points to be remembered in reference to this operation are:—(*a*) The soft parts in the popliteal space are liable to become extremely retracted; (*b*) the extremity of the long flap will slough if exposed to direct pressure.

Probably the reason why the integument of the popliteal space is so very elastic is that it may not be thrown into folds, and exposed to painful compression during flexion of the leg upon the thigh.

P.S.—To-day, June 28, and about six months since the operation, the patient came to the Hospital. A more elegant or useful stump cannot be imagined.

CLINICAL OBSERVATIONS ON THE TEMPERATURE OF DISEASE.

By EDWARD LONG FOX, M.D.,
Physician to the Bristol Royal Infirmary.

(*With a coloured Diagram.*)

VII.—PLEURISY—PNEUMONIA.

Although the thermometer is of the utmost value in the diagnosis of pleurisy from other thoracic maladies, and also in determining the nature of the effused products, yet the range of temperature is very far from being as definite as in most of the eruptive diseases, and varies, not only according to the nature of the effusion, but also with the extent of surface implicated, and the circumstances (cold, blood-poisoning, tubercle, pneumonic complications, etc.) under which the malady has originated.

A temperature much above 102° is rare in acute pleurisy, unless the fluid in the pleural cavity becomes purulent. It may even stop short of this point. It is, however, certain that pleurisy is always accompanied by some elevation of temperature; and this elevation occurs synchronously with, if not before, the initial rigor.

The ascending period may be very brief, lasting only a few hours, or from one to two days, whilst the duration of the stationary period may be quite indefinite, extending over a time varying from two or three days to several weeks, and marked occasionally by decided exacerbations, which are evidences of a spread of the disease. Case 47 affords an example of this kind of relapse on the 21st day of the disease.

The descending period may be very short, and the disease end by crisis. Case 49 is an example of a slight attack of pleurisy extending over only seven days, in which the temperature never rose above 100½°, and the malady ended critically on the sixth and seventh days. But far more frequently the defervescence is very gradual, and takes place by means of

morning remissions and evening exacerbations, the latter becoming smaller and smaller by slow degrees. This is seen in those cases of pleurisy with serous effusion, in which this effusion is gradually absorbed, the lung expanding again *pari passu*; and also in those cases in which the effusion has been very considerable for a long time, and the lung has been pressed against the spine; in which, too, the system has seemed to have accommodated itself to the uselessness of one lung, and the patient has recovered his general health.

These cases may go on with a fair measure of comfort for many years, the breathing in the opposite lung being intensely puerile; but a very slight cause will suffice to set up new distress in the affected side, and when this occurs the temperature will again become elevated.

Death, however, may occur in acute pleurisy, even when the effusion is not purulent. Trousseau mentions several such cases. Cases 48 is an instance of this. The fatal event was ushered in by a quickened pulse, hurried respiration, and a sudden temperature of collapse—95° Fahr. In this case the evening temperature had remained at or about 101° for several weeks. The effusion was serous.

Sometimes the temperature becomes normal when the effusion has taken place; more usually it remains at a sub-febrile height—100° to 101°.

The case is different, however, in suppurative pleurisy. Sometimes, of course, pleuritic effusion that has been serous for a long time, becomes purulent; sometimes, especially in blood-poisoning (as in the puerperal condition, small-pox, scarlatina, etc.), the effusion is purulent from the first. Whenever empyema exists there we find symptoms of hectic fever; so much so, that the diagnosis of empyema may often be made by the thermometer alone. Not only is the temperature from the first higher than in simple acute pleurisy, but the course is marked by constant daily fluctuations, and the fatal termination is accompanied by a very considerable elevation of the thermometer. Thus in case 50 the temperature rose on the day preceding death to 104°, and on the morning of death it reached 106°.

Paracentesis thoracis has a remarkable effect in reducing the temperature in these cases. Kussmaul was, I believe, the first to notice that in suppurative pleurisy the withdrawal of the pus from the pleural cavity by this operation was followed by a return of the temperature to the normal point.

Trousseau, to whom we owe so much on the subject of paracentesis thoracis, has made similar thermometric observations, when the fluid withdrawn was serous.

There is a tolerably constant relation between the temperature, the pulse, and the respiration in these cases. Except in cases of extreme weakness, the pulse is not very frequent if the temperature is not above 100°, whilst it rises if the thermometer registers a higher point than this. In case 47, the relapse on the 21st day was accompanied by a temperature of 102°, a pulse of 132, and a respiration of 44. In those cases, however, in which death is preceded by a temperature of collapse, the pulse and respiration are generally found frequent.

Elevation of temperature then will distinguish pleurisy from pleurodynia, and from the pain of flatulent distension of the colon.

Whilst high temperatures are of unfavourable import, and point to empyema, no temperature in the course of pleurisy excludes the possibility of a fatal determination to the disease.

A high temperature—103° to 105°—in pleurisy denotes either empyema, or serous pleurisy complicated with pneumonia, or with phthisis, or with pyæmia. In both these latter conditions the high temperature may probably be interrupted by very irregular remissions and exacerbations.

Pneumonia.

Trousseau remarks in his clinical lectures, "at the beginning of an inflammatory affection of the chest, when there is stitch of the side, it is occasionally very difficult by unaided physical signs, and the reaction to ascertain whether the inflammation is pneumonia or pleurisy: well, if from the first day of the attack the temperature rises rapidly, reaching 39° (102⅖), or *à fortiori* if it rises to a higher figure, pleurisy may be excluded, and pneumonia diagnosed; and likewise, the continuance of a relatively low temperature makes it probable there is pleurisy, or at all events, it excludes the idea of the existence of simple pneumonia."

Is this easy diagnostic rule perfectly trustworthy?

Before we can speak of the range of temperature in pneumonia, and *à fortiori* before we can judge of the value of the thermometer in diagnosis between pneumonia and other diseases, we must understand what is meant by the term. We would exclude of course all consolidation dependent on collapse of the lung. It will be wise to exclude also these consolidations of the lung dependent wholly upon obstacles to the circulation, notably from various diseases of the heart, including what I presume Wünderlich means by the term "œdematous pneumonia." The comprehensive name will include those consolidations of the lung, which although occurring under very various conditions, and with extreme divergence of symptoms, yet are connected together by one pathological appearance, cell-growth in the air-cells, and by one clinical symptom, which may be transient and temporary, continuous or remittent, an elevation of temperature of greater or less intensity at some period of the disease. These points, and these points alone, will be found common to those various conditions that may be comprehended under the term pneumonia.

Acknowledging, however, these slender bonds of union, we are compelled to distinguish at least five conditions, under which this consolidation of lung occurs, and these, in their most typical forms, differ symptomatically from each other to so great an extent as almost to seem separate diseases. These forms then will be—

1. Idiopathic inflammation of the lungs.
2. Pneumonia existing as a complication of blood diseases, as fevers, uræmia, etc.
3. Pneumonia occurring at the end of exhausting disease.
4. Chronic pneumonia.
5. Strumous pneumonia.

We reserve the fourth and fifth species, chronic and strumous pneumonia, for the succeeding paper.

In speaking of the first head, idiopathic inflammation of the lungs, we are met with one important point, to which Dr. Sturges called the attention of the Profession in *St. George's Hospital Reports*, vol. ii. This form of pneumonia is invariably connected with pleurisy, and Trousseau's thermometric rule becomes, therefore, only negatively useful. It, in fact, amounts merely to this, that if from the first day of the attack the temperature rises rapidly to 102½°, or more, simple pleurisy uncomplicated with any other condition may be excluded, and pneumonia diagnosed; but this pulmonary inflammation coming on idiopathically is so constantly associated with pleurisy, that we are safe in concluding that we have to deal with pleuro-pneumonia. This form of disease, then, is pneumonia *plus* pleurisy, and its temperature range certainly does not exclude pleurisy.

In this form the temperature begins to rise immediately after the initial rigor, and continues to increase for about forty-eight hours rapidly, with a fall of 1° Fahr. on the morning of the second day. So soon as four hours after the rigor Ziemssen noted a temperature of 102½°, and eight hours later 104⅖°. More usually a temperature rather above 102° will be found at the close of the first day, and one of 104°—106° at the end of the second. The highest point is often reached at the end of the second day. There may be a little diminution on the third and fourth days, and especially if an active treatment has been pursued. Bleeding, for instance, in the early part of the attack, will pull down the temperature about 1° Fahr., but this fall is very transient, and generally lasts only a few hours.

When the highest point has been reached, the stationary period begins, and may persist for a variable time, from three to seven days. Jaccoud says that this period ends in one-fifth of all cases from the third to the fifth day, in three-fifths from the fifth to the seventh day, in one-fifth from the seventh to the eighth or ninth. During this period the course of temperature is remittent, the remission being from 1° to 2° Fahr. The daily exacerbation generally commences about mid-day, and goes on increasing until midnight; the high temperature then remits from that hour until about 9 a.m., and is stationary from 9 a.m. until mid-day again. In many patients the sensation of heat coincides with tolerable accuracy with thermometric observations.

Defervescence is generally very rapid, but may be preceded by an increase of temperature. Most usually the normal point is reached in from twelve to forty-eight hours, and if the temperature has been very high in the preceding periods it will often be below the normal point for the first few days of convalescence.

The temperature, pulse, and respiration may subside at the same time, generally with perspiration, and before the appearance of any local signs of resolution.

Case 51 is an example of very prolonged defervescence, and illustrates the connexion of pleurisy with this form of pneumonia. The defervescence of the pulmonary inflammation began on the ninth day, and would have been over probably

on the eleventh, but for the pleuritic complication. Instead of reaching the normal point, it drifted into one of those stationary periods, indefinite in point of time, that are so commonly met in pleurisy, and the normal point was not really reached until the thirty-fourth day.

In fatal cases, this third period does not supervene, but death ensues with a very high temperature—104° to 106°, or even higher—and this in cases where death occurs from suffocation.

Wünderlich says the temperature is not so high in cases which die from asphyxia as where much delirium is present; but it is not unusual to find both these symptoms combined. In a case, too, in which, with entire consolidation of the left lung from pneumonia, death seemed to depend on exhaustion from hiccup, consequent on the spread of pleuritic inflammation to the surface of the diaphragm, and the patient was in all other respects in a state of collapse, the temperature was nearly 105°.

There is a tolerably constant relation between the temperature and pulse in this idiopathic pneumonia, and often between the temperature and the respiration; but the respiration may remain very high after complete defervescence of temperature, if a large surface of the lung is hepatised.

Dr. Warter thought the height of temperature in pneumonia was no indication of danger; but most observers differ from him in this; and if after the third day the temperature steadily increases, the case is a grave one.

The temperature of double pneumonia is not higher than when the inflammation attacks one lung only.

Case 54 was one of double pneumonia, which followed at first the ordinary course of idiopathic croupous pneumonia, defervescence commencing on the night of the sixth day, and after slight variations in the subsidence, the normal point was reached on the ninth day. Then a fresh pyrexial period commenced, of less intensity than at first, with a stationary period interrupted by an evening as well as a morning remission, and then a second complete defervescence. This relapse was again seen on the eighteenth day, and to a less extent on the twentieth, and not until after this date did real convalescence commence. These relapses showed that fresh portions of the lung were being attacked, just as any rise of temperature in the course of the disease is a proof of the existence of some fresh strip of pleurisy or of pulmonary inflammation. This relapsing pneumonia seems to be the connecting link between some kinds of idiopathic inflammation and the form of pneumonia so often met with in fevers, and even the low pneumonia that is seen at the end of exhausting diseases; though catarrhal pneumonia of a remittent type, but not truly relapsing, is not uncommon also under these circumstances. Both these forms may be latent, if by that we mean that they are not easily recognised. The increased respiration, the cough, the rusty expectoration, the diminished chlorides in the urine, all these symptoms may be absent; and from the nature of the case, and the difficulty or risk of turning the patient over to examine the posterior portion of the lungs, the stethoscopic signs, and especially those of the stage of crepitation, may be inaudible; the very absence of these symptoms will prevent the attention being called to the pulmonary complication; but I believe this complication never to exist without some elevation of the temperature sufficient to sound a note of warning; and this is markedly the case in pneumonia occurring at the end of exhausting diseases, where the temperature is so often nearly one of collapse.

In fevers, and especially in enteric fever, the recognition of pneumonia during the prolonged stationary period is difficult, particularly as the temperature of this form is far less elevated than of the idiopathic kind; but even in this period any sudden increase of temperature should lead the observer to a closer examination of the lungs. In the stage of defervescence in enteric fever, the recognition of pneumonia is less difficult. In one word, pneumonia looked at from a thermometric point of view is never quite latent. Case 53 is an example of pneumonia occurring in the course of renal dropsy. Attention was called to the lung by means of the thermometer alone.

In catarrhal pneumonia, which is often idiopathic, but may be secondary, and is a special complication of influenza, the temperature is apt to take on the remittent type. In this the ascent is so not sudden, and, as Wünderlich says, may be almost zigzag: the acme is not so high, the fluctuations at and about the time of acme are more pronounced than in the more continuous form, and sometimes small variations alternate with much greater deflections, and the defervescence is almost always gradual, much slower than in the continuous form, and yet more rapid than the defervescence of enteric fever.

Transition forms exist between the continuous and the remittent type, and indeed all the types of pneumonia, viewed from a thermometric point of view, may seem, if not to merge into each other, at least to own no fixed boundaries of demarcation.

To sum up, then, in a few words:—

Croupous pneumonia, with a continuous temperature curve, is generally idiopathic, and associated with pleurisy.

Catarrhal pneumonia, whether idiopathic or secondary, is connected with a somewhat lower range of temperature, and usually of a remittent type.

The relapses in relapsing pneumonia may be caused by remedies, but often depend upon one portion of the lung being inflamed and then healing, and afterwards another part becoming attacked.

There is no such thing as absolutely latent pneumonia, as all true inflammation of lung tissue affects the thermometer more or less, whether occurring in insane patients, in blood-poisoning, or at the end of exhausting diseases.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

FALL FROM A WINDOW—FRACTURE OF SPINE AND PELVIS, WITH PARALYSIS OF BLADDER AND LEFT LEG—SUPPURATIVE NEPHRITIS—DEATH.

(Under the care of Mr. DE MORGAN.)

We are indebted to the dresser, Mr. J. F. Wright, for allowing us access to his notes of the following case:—

Maria B., a dressmaker, aged 28, was admitted into the female accident ward on the morning of Sunday, May 8, 1870, having thrown herself from a window twenty feet from the ground. She had been insensible at first, but she recovered consciousness on her way to the Hospital, and complained of very acute pain in the lower part of the back and left thigh.

When seen by the House-Surgeon forty minutes after the fall, the woman was found lying on her back complaining much of pain in the middle of the back; able to raise the right leg slightly, but unable to move the left. On a catheter being introduced into the bladder, the urine was found to contain a large quantity of blood. She was put to bed, and three grains of calomel administered.

When seen by Mr. De Morgan next day, she was still unable to move the left leg, although there was apparently hyperæsthesia, and weak reflex action on tickling the sole of the foot. The urine contained less blood, but now passed away involuntarily. The pain during perfect rest was not great, but it became very intense on any movement of the left leg. Two days after the injury, the bowels remaining unrelieved, five more grains of calomel were given, the tongue being thickly coated with a moist yellow fur. The pulse was very weak. Hot fomentations were kept to the thigh. When the calomel acted, the motions were found to be tinged with blood. A horseshoe water-cushion under the sacrum gave some relief; but the pain continued more or less severe, and as she was very weak she was ordered—℞ acid. nitro-hydrochlor. dil. ♏x., spt. chloroformi ♏xv., aquæ f. ℥j. t. d.; the back to be rubbed with a brandy-and-water lotion. The patient became gradually weaker, diarrhœa followed the constipation, the urine continued to escape into the bed, and after a few days the respirations became laboured and quick—30 in a minute—the pulse 120, and the face flushed. The loss of power, with increased sensitiveness of the left leg, persisted, and on the 18th there was first noted a projection of the sternum at the point of union of the manubrium with the gladiolus. This projection was very tender, and was evidently a fracture of the bone, as the patient had never known of any prominence of the part before the fall. She sank on May 22, a fortnight after the injury, and an examination of the body was made on the following day.

Autopsy.—The spine was first examined, the portion below the fifth dorsal vertebra being removed. There was found an extensive fracture of the first lumbar vertebra. Three transverse and vertical fractures through the body broke it into four pieces, which were more or less carious, and in addition the left transverse process was separated and considerably displaced. The cord and nerves of the cauda equina were however uninjured. In the pelvis a fracture was found extending from about the junction of the anterior two-thirds with the posterior

one-third of the crest of the left ileum to the upper part of the great sciatic notch. Effused about the region of this fracture was much blood, into and between the muscles and round about the sciatic nerve, a small ecchymosis being present in the nerve substance. It was further discovered that the horizontal and descending rami of the pubes were fractured in the same line towards the inner border of the obdurator foramen, some suppuration accompanying the lesion. A transverse fracture of the sternum was also discovered with some comminution and caries of the detached fragments, with pus surrounding them. Of the viscera the bladder and kidneys alone presented marked changes. Both kidneys were found studded with numerous millet or hempseed sized abscesses. Pus escaped on section from the tubes and pelvis of each, and the ureters were also inflamed and contained a thin puriform fluid. The bladder contained a quantity of dark flaky matter and dirty puriform fluid of highly offensive odour, the lining membrane being greatly thickened and congested, and of a dark chocolate colour.

Remarks.—We have recorded this case because it seems to us remarkable in the cause of the paralysis of the bladder and one leg. For it will be noted that although careful search was made by the registrar, Mr. Morris, who conducted the post-mortem, for any lesion of the cord, this was found quite uninjured. It appeared that the injury of the parts about the great sciatic nerve and probable bruising of the nerve itself had given rise to the loss of motor power in the leg, whilst the severe pelvic lesions about the bladder had probably damaged the nervous connexions of this viscus and caused its inactivity. The cause of death was clearly due to inflammation passing up from the bladder to the kidney.

ROYAL INFIRMARY, BRISTOL.

EPILEPTIFORM CONVULSIONS, COMA, AND DEATH, OCCURRING IN A GIRL, AGE 19, FROM CHRONIC ATROPHY OF THE KIDNEYS, WITH NO PREVIOUS SYMPTOMS OF RENAL DISEASE.

(Under the care of Dr. FAIRBROTHER.)

[Reported by Dr. R. SHINGLETON SMITH.]

ALICE T., age 19, was admitted on February 3, 1870, for anæmia and debility. She had scarlet fever four years ago, and there is an indistinct report that her face swelled for two or three days afterwards; she also had slight discharge from one ear for a time. She has always been delicate since the time when she had scarlet fever, but has not been laid up at all, and has not complained of any particular symptoms; her feet have never swelled. She has five brothers and a sister, all healthy, and has no family tendencies to any particular disease; there is an obscure history of insanity in the family, but no mention of any other malady was made.

On admission the girl complained of weakness. She was well nourished, and looked fairly healthy, excepting that she was rather anæmic. No œdema could be detected. On the morning after admission she had a fit of an epileptic character. She had never had fits or convulsions before. During the fit she foamed at the mouth, bit her tongue, and afterwards she remained insensible for three hours. For several days she did not seem to recover well from the effects of the fit, but after a week she was as well as usual, and made no complaint besides weakness. Nothing unusual had been noticed with regard to the urine at this time; she passed a good quantity; it was of natural colour, but was not examined for albumen. Four weeks afterwards, on March 10, she had another fit resembling the previous one, in that it presented all the characters of an epileptic fit. After this she seemed low-spirited, and complained of general uneasiness. On March 11 she had a third fit, and from this did not recover consciousness. At this time her urine was found to contain about one-third of its bulk of albumen; it was free from blood, pale, and transparent. She did not again become conscious, but continued to have several fits a day; her breath became ammoniacal; she perspired very freely; passed a small quantity of urine in the bed; breathing became stertorous, and her pulse gradually accelerated till March 15, when she died.

A post-mortem examination was made the day after death, when no cerebral lesion was discovered, the brain being only slightly anæmic. The left kidney was small, weighing 2¾ ounces; it was red, firm, rather granular on surface, capsule adhering somewhat firmly. One or two small cysts were visible beneath the capsule. The cortex was thin, but not paler than usual; it was of firm fibroid consistence, not giving any waxy reaction with iodine. The right kidney was most remarkably small, weighing one drachm. Its size was about that of a normal supra-renal capsule, and it looked like an enlarged lumbar lymphatic gland, from which the ureter could be traced. It was of an oval shape, reddish, smooth on the surface, with one deep cicatrix running transversely across it (remains of an old cyst), firm to the feel, tough, almost of a fibroid consistence, not infiltrated with any abnormal material, and giving no reaction with iodine. No cortex was visible, the cones extending quite to the surface. Other organs healthy; no serous effusion; no hepatic disease; no pulmonary abnormalities.

WORCESTER GENERAL INFIRMARY.

CASE OF IDIOPATHIC TETANUS—RECOVERY.

(Under the care of Dr. WILLIAMS.)

EDWARD H., aged 8 years, a healthy-looking country lad, admitted May 11, 1870. Was quite well till three days ago, when, as he was returning from work (farm work), he suddenly fell down, and became unconscious for about five minutes, was then able to get up and walk home, not feeling any pain. Went to work the next morning, and on returning in the evening again fell down unconscious, and after a time he walked home and went to bed; was attacked with violent pains and cramp in the legs and abdomen early next morning, and was unable to walk. He got rapidly worse all that day and was brought here next morning.

May 11.—There is now partial trismus, being able to open his mouth so as to protrude the tip of his tongue, the upper extremities and muscles of chest are perfectly free. The abdominal muscles are quite rigid, as also are the lower extremities, has spasmodic contractions every few minutes, commencing in legs and travelling upwards to trunk, and screams with the pain in region of diaphragm; has priapism; can swallow fluids without pain; urine retained, requiring catheter. Bowels constipated. Milk diet. Hydrarg. chlor. gr. iij. statim. Ol. ricini ʒiij. eras manè.

12th.—Passed a bad night, screaming out every few minutes with pain in abdomen; countenance pinched; pulse 100. Bowels not acted, ordered a common enema which brought away some frothy mucus and a very small quantity of black offensive fæces. Passed water. ℞ Morph. acet. gr.⅓ h.n.s. Pulv. jalap co. gr.x. statim.

13th.—Passed a large quantity of black-looking fæces this morning, and seems better. The nurse says he moved his legs in the night, but they are perfectly rigid this morning and the spasms continue though not so frequent. Still partial trismus, and has opisthotonos at times. Rep. pulvis.

14th.—Had a better night and can move his legs slightly this morning, but abdomen still very tense; recti extremely contracted on touching abdomen. Passed more dark looking fæces. Ordered tinct. belladon. mx. ex aqua 4tis horis. Rep. pulvis.

15th.—Better, can open mouth more, bowels moved, spasms less frequent. Continue same.

16th.—Abdomen still tense; legs less rigid; motion still dark and offensive. To continue mixture, and repeat powder.

18th.—Much better. The spasm attacks him only about three or four times a day; sleeps better; can open mouth nearly as usual; to continue same.

20.—Had him out of bed this morning for the first time; the contractions of the calf muscles make him stand on his toes, but has no pain with it. Abdomen not so tense, but has the contractions at times. Bowels open once a day with the powder. Better colour. To continue medicine, and hyd. c. creta gr. iij. o.n.s. Mutton diet.

From this date he rapidly improved; was able to open his mouth as usual; gained the use of his legs, and his abdomen became soft and normal; motions of a proper colour, and he left the infirmary June 11 quite well.

DRINKING FOUNTAINS.—At the eleventh annual meeting of the Metropolitan Drinking Fountains and Cattle Trough Association, held on Saturday last, it was stated that 4142 horses alone drank at four troughs only during one day, and that nearly 300,000 people drink daily in the summer at the fountains, 8000 having been known to drink at one fountain in a single day.

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Medical Times and Gazette.

SATURDAY, JULY 2, 1870.

THE RECENT PROGRESS OF PATHOLOGY.

The very able Harveian oration of Dr. Gull put before his hearers that old question which in some shape or other has been the crucial problem in every age—namely, whether everything that exists in the universe is commensurable with, or as we say, is correlated with gravitation, in other words, whether life and soul and spirit, if they are got hold of properly, and put into the scales, are accurately determinable in foot-tons.

The suggestive expressions of opinion which cropped up now and then in the audience would show the orator that even in this age, that very wide, and indeed, in every sense, awful question (if such a word as awful has any force in a world of foot-tons), is solved much more by people's feelings than by their intellects. So that there are now, and probably always will be, some who don't affect kindly the exclusively material measurement of everything, but attach most warmly to the phenomenal diversity of things, and prefer not to be made to see them as distorted gravity, and nothing more.

Now it is worth notice that in our Profession these two distinct kinds of people—the one of whom prefer the phenomenal side of things they are concerned in, and the other of whom prefer a standard which reduces these phenomena to some terms common to them all—are equally alive and actively at variance, and equally divide, and will divide, the Profession's interest between them. Nature or circumstances, or both, induce one class of Physicians to prefer to take primary and principal interest in diseases as they are seen clinically, moving and changing. Another class of minds in Physic prefer rather to know diseases by the constant standard that is afforded by the anatomical changes which make their tangible side.

And thus Medicine progresses on its two great divisions in a fairly harmonious way, having some analogy to the forward motion of a biped, at least so far as that each step of one of these limbs of Physic supports the other limb through its next effort of advancement.

The last few years has seen a decided step on the side of clinical medicine in the formation of the Clinical Society, or as we suppose it is now to become, the clinical section of the Royal Academy of Medicine. We shall look for the continued work of this Society, and shall be glad to witness it bringing on the clinical, which is the right, and should be the leading, limb; but there is clearly time yet to sum up its work. On the other part the pathological side has been pushing forward during the decade that has just expired, and a lively interest in pathology still shows the vitality of the Profession—indeed much good work has been done since 1860.

Summing up recent scientific progress is both a difficult and an uncertain thing, because, like every writer of history, on whatever scale, we cannot help treating the course of affairs with a certain sense of the substantial importance of what has been reached and is enjoyed at the time when we are writing, whereas always the further course of affairs shows that much that we now hold is only substantial because our opinion makes it so, and hence it is very needful to avoid letting slip out of sight any true matter which has not suited the favourite opinions of the period. Questions in pathology are too much allowed to follow the laws of fashion—they are brought out and used for a time, until every one is tired of them, and then put by to sleep again. And indeed, in looking back over the ten years that are gone, we see that many of the inquiries that were of chief interest at that period have rather been superseded than solved.

Some years ago, a distinguished Physician, who himself has done much to further morbid anatomy, gave out his opinion that morbid anatomy was worked out. In the sense we suppose him to have meant, this perhaps is so. Nobody can hope that anything very new will be found in the way of everyday post-mortem-room experience. The means of verifying clinical opinions—that is, the description for purposes of recognition of morbid changes, has been thoroughly done, and the progress of this part of pathology in the future is likely to be as fruitful as the progress of the zoology of butterflies or the botany of British flora. Hydatids in wonderful places or aneurisms doing extordinary things we shall still hear of, but we may indeed flatter ourselves that the material changes of parts are now recognised. So far as this sort of knowledge goes, the only progress to be made in it is the progress each several student of the Profession must make in acquiring it.

But there are two other great and actively vital branches of pathology which are yet far from complete, we don't know how far. First there is the knowledge of the association of diseased changes, and second, the knowledge of the relations which the several changes bear to the normal elements of the tissues. These are the branches which have made progress during the last ten years, and which will still continue to make progress.

The discovery of associations of morbid changes with each other or with already recognised clinical diseases, has made several important acquisitions. Some of these were partly known, or known to a few, but confidence in the truth of the observations and spread of the knowledge of them, which condition each other and are the tests of real progress, have been marked in several cases. Thus, in England at least, we have learned to recognise leukæmia not only as a disease of the spleen, but as bringing with it widely distributed changes in the liver, kidneys, and other organs, and allying itself with malignant tumours in a remarkable way, which will for ever preclude the idea of splenectomy in this disease. The observation of gummatous syphilitic nodes on the arteries has been made with certainty, an important step seeing what very different views as to the power of syphilis in causing aortic disease are found among authorities. The observation of discoverable tubercles in the choroid, as a sign of general tuberculosis, is interesting, and may be valuable; we have seen several such instances. The recognition of sclerosis of the nervous centres as a general disease which should take its place among diseases recognised at the bedside appears to be making its way to light. The discovery of aneurisms on the pulmonary artery, as a frequent cause of fatal hæmoptysis in phthisis offers explanation of accidents which before were very obscure. The observation of a form of tubercular phthisis accompanying stenosis of the pulmonary artery is curious, and must bear importantly on the general history of tubercle. The better recognition of the exophthalmic cachexia is yet to be desired; we believe it has in future to have its importance

recognised as a cause of many cases of so-called functional palpitation. We might go on to name the observations on the state of the muscles in fevers, and many other things of interest that are practically established in the science of pathology, together with a great deal of enthusiastic labour on the question of vegetable germs as the sources of zymotic disease, which is very far from being established.

In the other branch of pathological anatomy which concerns the relations of diseases to the elements of the tissues they affect there have been important movements. The old view of the time of Rokitansky, which had imported its expressions into all pathological language, so that one cannot now avoid saying exudation, effusion, deposit, infiltration, has almost entirely gone, and nearly every one now believes in the doctrines of the cellular pathology. But, while this has taken up the position of an orthodoxy, it has met dangers as well as advantages. On the one hand, it has done great service in directing active general attention to the minutest elements of tissues and their behaviour under irritations; but, on the other hand, its very foundation has received a severe shock from the observations of Cohnheim on the escape of white blood corpuscles from the vessels during inflammation. The disposition at present is to allow these views to divide the field between them. The observations on which either of them rest are singularly well attested; much is evidently to be done here in clearing up a great question. Most important results have been arrived at in consequence of the discovery of Villemin on the transmission of tubercle by inoculation; and though the original view of Villemin has been overturned, and no one now thinks that tubercle is inoculable as tubercle, yet it is established clearly that a disease not distinguishable from miliary tubercle is set up by the presence of chronic suppuration in the tissues of some animals, and by injecting caseous pus into the veins of others. This has led to a tendency on the part of many pathologists to favour the belief that in man also miliary tuberculosis is due to the general infection of the blood from local caseous relics of scrofulous disease; and here is a wide field of inquiry which is not likely to be negatived for want of a profusion of positive instances. Again, the observation of the relation of tubercle to the perivascular spaces is very important; and when we mention, lastly, the work that is being done by the Pathological Society's Committee on Morbid Growths, we think we have shown that the pathological side of Medicine is going forward actively and calling for the clinical to make corresponding progress.

THE COLLEGE OF SURGEONS; ITS ENEMIES AND ITS FRIENDS.

At the meeting of the College of Surgeons on Tuesday last Mr. Busk alluded to the attacks which had been made for a long time past on the governing body of the College. Such attacks, virulent and persistent as they had been, were, he believed, calculated to do great injury to the Profession in the eyes of the public. That they found no favour with the Members and Fellows the result of the late meetings have sufficiently shown. Never was an attacking party so completely defeated. Never was a more striking illustration of the "engineer being hoist by his own petard." Anything more unjust and ill-timed, or more ungenerous than these attacks, can scarcely be conceived. Unjust they were—levelled against a body of gentlemen who were straining their utmost to bring about a wholesome reform in the institution; ill-timed they were—made at a moment when the entire energies of the Profession should have been devoted to the repulsion of a common enemy; ungenerous they were—resorted to when it was supposed the College was in a state of difficulty and danger. It does not lessen the gravity of the offence against the interests of the Profession, that these attacks were repelled. The animus displayed was unequivocal, the desire to do mischief was strong, the power to inflict it fortunately weak.

Had the busy and unscrupulous little knot of persons whose chief delight appears, to be the firing off their "ineffectual" ordnance against the pillars of the College, been successful, it is difficult to over-estimate the serious position in which the great body of English Surgeons would have been placed. Had the "plot" succeeded, had it been proclaimed to the public and the Government that the Members and Fellows of the Royal College of Surgeons were anxious for its destruction, how would the enemies of progress and of legitimate Medicine have triumphed! How fortified would the Government have been in their endeavour to place us all under arbitrary and despotic rule! We should then have vainly struggled against the enemy from without. The defenders of the citadel, given over to the attacking force by the treachery of those within its walls, must have surrendered at discretion, and have been marched out without even the "honours of war." This is a time when it is incumbent upon those who represent the interests of the Profession to speak out. It is time to "close our ranks;" it is absolutely necessary to know who are our enemies, who are our friends. We can successfully contend in open combat with our "foes." It is not so easy to overcome the intrigues of "pretending friends." The puniest hand can sometimes destroy. It requires the hand of a master to construct. The Alexandrian Library, which took generations to form, was destroyed in one night, by the torch of an ignorant incendiary. What is the lesson to be learned from the recent proceedings with respect to the College of Surgeons? Clearly, that the Profession desires Reform, but not Revolution. That great institution, which with all its faults and shortcomings, has been the honour and glory of Surgery, should be preserved. Preserved by the unity of its members, and by their action in its defence when its destruction is threatened. In the worst days of its inaction and exclusiveness, it is impossible to obliterate from its history, from its rulers, the names of Cline, of Abernethy, of Astley Cooper, of Brodie, and of Liston.

It is impossible to ignore its claims to the affectionate regards of our own body, and to the admiration of the world in its magnificent museum, founded by John Hunter, added to by numerous contributors, and guarded and enriched by the Council in no niggardly spirit. Forty-three years ago, when we had just cause to complain of the manner in which the affairs of the College were conducted, the most sagacious, the ablest, the greatest of its opponents for the time being, William Lawrence, thus concluded one of his masterly speeches at the Crown and Anchor Tavern. His remarks require no comment even at the present day, for they are as applicable now as then. He said:—"I should ask you to bear in your recollection that the men whose acts you are assembled to arraign compose the constituted government of the Profession to which you belong; that in many of them we recognise those venerable teachers to whose instructions we ourselves owe the knowledge which we possess; whose characters contribute to raise our scientific fame abroad, and whose names now add dignity and respect to the institution of which we are members." Noble words; received, as they deserved to have been, by an assembly of 1200 members of the College with loud and continued applause.

THE HARVEIAN ORATION.

Up to a year or two ago, this perhaps of all speeches the most important in our Profession—seeing that it was founded to commemorate the greatest of all our physiologists, not even excepting John Hunter, the tutelary genius of the College of Surgeons—was, comparatively speaking, wasted. It was pronounced in Latin, and Latin had well nigh ceased to be a spoken—we had almost said an understood language, had we

not the recent Oxford commemoration in our eye and ear. It was intended to foster scientific research and the scientific spirit in our Profession, and had ceased to be useful to that end. It was well, therefore, for the College to exchange the little-known Latin for the well-known English, for Latin is ill-adapted to scientific subjects. Modern ideas must be rendered in modern language, and any attempt to utilise the majestic language of the ancient Roman for such a purpose grates on the ear of a lover of classical lore. Nor could the President have selected a better exemplar of the modern English Physician than Dr. Gull—differing from the old Warwick-lane type of Physician, just as the language and the ideas he made use of differ from those in vogue in former times.

It would hardly be possible in the small space available for our purpose, to discuss every point touched on by Dr. Gull, but to our thinking the most important were those which related to vital force and to the preservation of health. In many ways, the doctrine that force is indestructible has born fruit, not only in the results obtained by following out the theory to its legitimate consequences, but perhaps still more in the spirit it has induced in men. To many the idea that life is but that *one simple* force, modified in its manifestations, is repugnant, to many it is unintelligible, for with life the idea of mind is too frequently commingled, although no one would think or speak of the soul of a gooseberry bush, any more than would any man of science say that the bush was inanimate.

Dr. Gull did well to insist on the distinction between mind and merely vital phenomena; the former we cannot understand, the latter we, by dint of study, may. Starting with the phenomena of life as seen in the human body, Mayer of Heilbronn was enabled to arrive at the most magnificent generalisation of modern times. But he did not rest with living beings; his doctrine applied equally to inanimate nature, and led him to what most men now consider the true theory of the food of the sun. If the doctrine be found to apply in one direction, surely we may attempt its application in another without being looked at askance as irreverent and irreligious. The public enunciation of such doctrines by a man holding the position of Dr. Gull cannot fail to have weight with many who would not listen to arguments, however convincing.

Turning to the germ-theory of disease, Dr. Gull also did us good service—not so much in upholding that theory, which, after all, only involves the more exact expression of a very ancient idea, as in the corollary he drew from it. The notion that there were certain specific emanations capable of conveying disease from the sick to the healthy is as old as Medicine itself. That these consisted of matter light enough to float on the air was apparent to all; for did not the air carry them, whilst others could not so be carried, and required for infection close contiguity? It does not much matter what we call these emanations, whether germs or anything else. The important point is that they do exist, and may be conveyed from one to another, either mediately or immediately. A much more important matter was that the medium might vary, and that these emanations from the sick retained the power of affecting the healthy for a considerable time after leaving the unhealthy body. That garments were capable of so retaining and conveying plague and small-pox poison was known of old; but that the poison of cholera, typhoid, and scarlatina could be transmitted by water is essentially modern, and having been associated with the name germ, has given an old face a new mask. The conception that disease was, for the most part, of celestial or telluric origin naturally interfered with any attempts at its prevention. The search was directed for remedies, not for preventatives. The notion of talismans—universal specifics—was more appropriate to those times than was that of stamping out disease; but when the proper time came, and men perceived the important bearing healthy conditions had on averting disease, old facts were fitted to new theories, and the whole was accepted as new. As Dr. Gull has himself been instrumental in pointing out, the class of diseases called zymotic are not much affected by remedies; they run a definite course, and though the Physician may be of great use in warding off or dealing with complications, he cannot shorten the period of the disease. This being so, our course is clear. We ought to do what we can to prevent such diseases if we cannot cure them. And if we cannot prevent them we must do our best to diminish their fatality, not by specifics, but by opposing to their ravages bodies as healthy as possible under conditions as favourable as possible—in short, by securing the odds on our side. This is the origin of what is absurdly called preventive Medicine—a thing, nevertheless, which, however absurd its title, is a crown of glory to our Profession. For if we consider our advantages as a Profession, this preventive Medicine is directly opposed to them; if it is our business and our pleasure to treat disease, if thereby we make our living, it is surely to our honour that we have been the first to insist upon that which actually takes away our Professional gains. If we live by sickness, it is not our interest to prevent sickness, and yet, forgetful of self-interest in our zeal for the public weal, we have not hesitated to advocate that which will most likely avert pestilence from the door of our neighbour. The claims of the officer of health on public respect and gratitude are very great, and yet his scanty reward is grudged him, whilst, if no danger threatens, his voice is hardly listened to. We are well pleased that Dr. Gull, who has distinguished himself in the study and treatment, rather than the prevention, of disease, should thus boldly come forward to assert the claims of those whose labours are too often unseen or overlooked, their object being to *ward off* that which, when it does make its appearance, becomes only too tangible to all.

THE DROUGHT.

Extremes of weather, whatever the element of weather in question may be, are matters of more than mere interest to the Practitioner of Medicine—they ought to be instructive. Let us inquire, then, in what particulars the remarkable season we are passing through may be turned to our advantage. We are informed by the Registrar-General that during the first three months of this year there was a deficiency of rainfall amounting to 1 inch, as measured at Greenwich. From the fourteenth to the twenty-fifth week inclusive—that is, during twelve weeks of the second quarter—little more than an inch of rain has fallen altogether—namely, 1·11 inch, and out of the eighty-four days which they embrace rain has fallen in appreciable quantity only on fifteen. The average rainfall of April and May is 4 inches. And it is to be observed that this has happened at a season of the year in which drought is not by any means a common event. Its future results upon the crops, upon the supply of provisions, and upon their price, are questions about which we may speculate, but that is all. Our attention may more profitably be turned to the apparent relation which the drought is bearing to the condition of public health. And here we must keep in mind that not only has there been much less rain than usual, but that the atmosphere has been very much drier than it customarily is in the spring quarter of the year. If we are to measure public health by mortality, it is remarkable that, throughout this dry season, the deaths that have occurred have been less numerous than the average. We gather from the weekly tables that the last occasion when the mortality of London was above the estimated average was in the first week of this quarter, the fourteenth week of the year, when the excess of deaths was 32. Since then the mortality has varied from 5 to 149 deaths per week below the average, the total saving of life in London during the eleven weeks being 651 persons. Are we therefore to conclude that the public health has been unusually good? We must hesitate before we draw this inference. So many less persons have died, but it does not follow necessarily that a smaller number of persons than usual have been sick.

Unfortunately we have no national records of sickness to appeal to upon this subject, and so far we are losing a grand opportunity; but where local records have been kept and analysed it has come out that dry weather is remarkably unfavourable to public health, however it may affect the records of mortality. This is one of the facts most prominently brought forward by the observations made in the north of London by Dr. Ballard, and we are informed by him that the present season forms no exception to the rule, for that the public sickness in Islington during April and May has been higher than in the corresponding months for many years past. We should be glad to learn the experience of observers in other parts of the country, where similar local records are kept or have been kept for a series of years past. It need not surprise us if it should be found that conditions preservative of the life of persons hovering on the brink of the grave should yet be such as to favour among the healthy states of the system which incapacitate them for their occupations, and lead them to seek Medical aid. All that we can infer would be that the sickness promoted by the drought is not of a character, on the whole, immediately to endanger life. It is curious to note that in the extremely wet year 1860, when the rainfall was almost continuous, when the sight of the sun was an event upon which people congratulated one another, the mortality was very low, just as it is now, when people are praying in the churches for rain. But in that year there was, according to Dr. Ballard's observations, a correspondingly small amount of public sickness. To pass on to some special diseases, it is to be noticed that, since the drought has become established, small-pox has been extending, and is threatening to become epidemic; and that scarlet fever, which had fallen very much into abeyance by the end of March, had nearly doubled its mortality in London by the middle of June. Both of these are diseases the writer we have alluded to maintains to extend epidemically in a dry atmosphere preferentially to a moist one. We understand that the Small-pox Hospital is now again full of patients, and that the mortality from scarlet fever by no means represents the prevalence of the disease in London. With respect to diarrhœa, which is very much dependent upon atmospheric temperature, we scarcely expect it to make much advance until the mean temperature becomes persistently higher than 60°. The deaths from this disease were nothing remarkable until the temperature rose 5° above the average in the twenty-fourth week of the year. The deaths from fever, however, throughout the droughty period have been extremely small for the season. The weekly average has been thirty-five deaths, while the average for the corresponding weeks of the previous ten years is forty-seven deaths, and this without any correction on account of population. If, as Pettenkofer holds, typhoid results from exhalations from the soil in a definite condition of moisture, it is noticeable that this decided diminution of fever in London is so far in accordance with his theory that the soil for a considerable depth is absolutely dry and powdery, and in a condition unfavourable to the ready decomposition of its organic contents, to the growth or development in it of living matter, and to the exhalation of moisture carrying with it into the air the *materies* of disease.

THE WEEK.

TOPICS OF THE DAY.

The President and Vice-Presidents of the Royal College of Surgeons have, we think, good reason to be satisfied with the result of their appeal to the Fellows and Members of their College. Eighty gentlemen attended the meeting, and amongst them were many of the leading Surgeons of the day. The meeting accepted, with perfect unanimity, the measure which the Council of the College submitted to them. It affirmed, without an adverse vote, the principle that the Bill now before the House of Lords, or any other measure of Medical reform which does not erect one portal through which candidates shall enter the Profession of Medicine, is worthless, and can never satisfy the demands of the Profession; and it very wisely abstained from recording an expression of opinion on more debatable subjects. To have entered on a discussion of the whole Bill as amended might undoubtedly have placed, in a strong light, the various points on which it is still rightly held to be unsatisfactory, but on many of these some differences of opinion might have been found to prevail, and we confess the practical wisdom of confining the voting to the resolutions which referred to the omission of clause 18 in the Bill as amended. The Lord President can scarcely disregard a unanimous vote from a public meeting of the largest Medical constituency in the three kingdoms. Clause 18 was the great provision of the Bill, which rendered it in any degree acceptable to the Profession. Without that clause, every objection that can be urged against the other clauses of the Bill acquires tenfold force, for the evils of nineteen competing examining bodies, which the Bill was especially intended to sweep away, are simply exchanged for the evils of twenty-two.

We are quite aware that the Universities can advance some cogent arguments for being excepted from the operation of clause 18, and we have all along foreseen that, if any measure is to pass, on this point there must be a compromise. The Universities, for instance, may say that, if they give up the right of conferring degrees in Medicine on any who have not obtained the State licence to practise, they may next be called on to forego the right of conferring degrees in laws or in divinity on any who are not licensed to exercise the legal and the clerical professions. They may also urge that, if the penal clause of the Bill does not prevent their graduates from practising, neither can it prevent any person possessing foreign degrees from doing so; and fears are expressed that the new licentiates in Medicine and Surgery will shrink from the long and difficult course required by the British universities, and will content themselves, after having passed the minimum examination, with purchasing a foreign degree in the cheapest market. To all this we answer: First, that the omission of clause 18 not only permits the Universities to grant honorary Medical degrees, but gives free licence to the Corporations to confer their fellowships and memberships on unlicensed persons. Again, the penal clause (21) of the Bill is not a sufficiently stringent one; it will be very difficult to enforce it; in fact, no general enactments can prevent a Doctor of Medicine or a Fellow of a College of Physicians or Surgeons from examining a patient and accepting an honorarium; and the public would not be bound by such a law if the Profession would. Lastly, that Medicine is in an entirely different position from the other Professions, and that arguments drawn from the latter will not therefore apply. For ourselves, we think there are two solutions to the difficulty. First, either make it incumbent on all university graduates, previously to final graduation, to obtain the State licence, but give it them on easy pecuniary and examinational terms. This which would be no real infringement of the one portal system, we think, might be accepted without loss of dignity by the Universities. Or, secondly, introduce a separate clause permitting British Universities to grant, under certain restrictions, honorary Medical degrees to persons who are not licensed to practice, but bind over the Universities to deprive such persons of such degrees, and to prosecute them if they attempt to infringe the law by practising Medicine or Surgery. Either of these compromises might be made supplementary to the re-introduction of clause 18.

The Syndicate of the University of Cambridge have come to some resolutions in reference to the amendments to be proposed by Lord Cairns and the Duke of Richmond, on which we commented last week. The Syndicate naturally demurs to the proposed limitation of the power of conferring honorary degrees in

Medicine and Surgery to Universities which require a previous graduation in arts. They also strongly object to the amendments to be moved by the Duke of Richmond on clause 3 and clause 10 of the Bill, on the ground that these amendments would render futile the main principle of the Bill—the principle that every Practitioner of Medicine or Surgery shall be examined by one of three national Boards. It is curious that the Syndicate does not seem to be alive to the fact that the omission of clause 18 of the Bill equally renders futile its main principle. We object to the amendments to be moved by the Duke of Richmond on the same ground that we object to the omission of that clause by the Lord President.

We have received a statement published by the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, wherein these bodies express their "regret and astonishment at the omission of clause 18," and discuss the claims of the universities to establish any special exemption for their Medical graduates. We notice that in this document the Colleges and the Faculty distinctly attribute to the Scottish Universities the amendments to be proposed by the Duke of Richmond. The following quotation has at least the merit of being plain speaking:—

"The Colleges and Faculty would therefore protest against the proposed exemption of candidates for university degrees from any part of the conjoint licence examination. They trust that they have shown that for such a claim there exists no valid reason whatever, and it would be obviously invidious as regards other bodies. They might also press one further consideration on the Legislature—viz., this, that in according a privilege to all the universities their claim to it must be estimated by an anticipation of how it will be used, not by the highest of the universities, but by the lowest of them. On this point, however, they will not enlarge.

"But besides claiming that their graduates shall be exempted from examination on what they call 'the fundamental Medical sciences,' they demand that they shall be examined by the conjoint board on the practical branches on payment of a fee, which any calculation will show to be utterly inadequate to meet the expenses of that part of the examination. The Colleges and the Faculty trust that a claim so unfair will meet with no consideration from the Legislature. But not content with this, some of the Scottish universities are doing what they can to have withdrawn from the Bill a clause which provides that the surplus of fees to be paid by candidates for the licence (after the examination expenses have been defrayed) shall be apportioned equitably among the corporations for the maintenance of their great museums, libraries, examination-halls, and other public purposes, which benefit the Profession as well as the public. The withdrawal of this clause would probably involve the ruin of the corporations, and the Colleges and Faculty cannot believe that the Legislature, at the instigation of the universities, will take such action as this, which would materially cripple, if not utterly destroy, such time-honoured institutions as the Medical corporations, which are peculiarly British institutions, and play an important part now, as they have long done, in the organisation of the Profession. The universities are of course quite entitled to defend and maintain their own rights and privileges, and the Colleges and Faculty would not desire to see anything done to interfere with their efficiency. But it is surely unworthy of these great bodies, in their desire to preserve their own privileges and funds, to endeavour to do so at the expense of those who should be their natural allies, and not their antagonists. The Scottish universities, some of whom would object to any part of the fees of candidates for licence being allocated among the corporations for the public Professional purposes above-named, themselves receive from the fees of their Medical graduates between £3000 and £4000 annually, which are appropriated, not for the specially Medical, but for the general purposes of the universities. It would be easy, by reference to the past history of the Profession, to show that some of the bodies which the universities would thus deteriorate, in not a few most important instances, both as regards general and Professional education, have taken steps in advance, which some of these universities have been slow to follow.

"The Colleges and the Faculty, in conclusion, state their belief that the Bill, *as originally introduced*, is calculated to prove a beneficial measure; but that in the form in which it appears as 'amended on report' it would be worse than useless; and that so far from settling the question of Medical reform for a long period it would simply be laying a foundation for years of agitation, with a view of obtaining more just and efficient legislation."

The election at the Royal College of Surgeons for two members of the Council comes on on Thursday next, the 7th inst. Of the four candidates we have already spoken so frequently that we shall not again attempt to compare their respective claims. It is only fair, however, to Mr. T. Spencer Wells who on principle has declined to canvass, to refer our readers for a statement of the principles which he holds on subjects of Medical polity to a letter which we publish in another part of the journal. We would, whilst on the subject of the College election, draw the attention of the authorities of the College to a small point in the present mode of conducting the election which we think objectionable. Fellows now receive a paper with the names of the candidates printed thereon, and they are required to draw a pen through the names of those gentlemen for whom they do not vote. In other words, they are required to vote *against* certain candidates as well as *for* others. Now it is clear that this may frequently be a very repugnant task. Its disagreeable character would be somewhat diminished if it were only necessary to place a cross against the names of those candidates whom the voter desires to support.

The casualties from sunstroke in the 9th and 94th Regiments during their recent march to Aldershot may be taken as evidence of three things:—First, that the head-dress of our soldiers is not yet the best adapted for marching under a hot sun; 2nd, that in England in the summer the same precautions as to the hour of march should be enforced as in an habitually hotter climate; 3rdly, that the Medical officers should always be consulted by the commanding officer of a regiment as to the amount of heat and fatigue which the men should be called on to undergo. We may add that water in moderate quantities should be provided for men on march.

A letter received by a well-known London Physician from a member of the family of Professor Liebig, dated from Munich on the 26th inst., gives a favourable account of the great chemist's recovery. Professor Liebig's health continues to improve daily.

There is a vacancy for an Assistant-Surgeon at Charing-cross Hospital. Mr. Bellamy is a candidate for the office. The Hospital is to be enlarged by an addition of twenty beds which will necessitate an increase of both the Medical and Surgical staff.

We congratulate Dr. Brady on the fact that he has carried his Poor-law Medical Officers' Superannuation Bill so rapidly and successfully through the House of Commons. We do not anticipate much opposition in the Lords, and we think we may safely prophesy that Dr. Brady will have the honour of carrying the most practical and most acceptable Medical Reform Bill of the session 1870. A correspondent has furnished us this week with an important suggestion—it is that the amount of pension and the period of superannuation should be fixed by the Poor-law Board, and not by the local boards of guardians. The advantages of this amendment are clear, and we trust that it may be introduced before the Bill receives the Royal assent.

At the last moment before going to press we have received intimation that the House of Lords, at their sitting to-day (Thursday), have accepted the amendments proposed by the Lord President, that those proposed by the Duke of Richmond have been withdrawn, and that the Bill has passed through committee. An account of the debate will be found in our parliamentary intelligence.

THE DEATH OF SIR JAMES CLARK.

It is with great regret we announce the death of Sir James Clark, which took place at Bagshot-park, on Wednesday, June 29. Sir James was in the 82nd year of his age. He was born in Banffshire, and was educated at King's College, Aberdeen, and at the University of Edinburgh. We hope next week to furnish an account of the Professional career of the Physician who has possessed for a large part of the present century the full confidence of our Sovereign, and whose enormous influence has ever been exerted for the benefit and the advance of the true interests of the Profession of Medicine. The memoir we shall publish will be from the pen of one who knew Sir James intimately. It would be easy to construct a hasty biography from sources already at hand, but we prefer giving our readers the more life-like sketch of a personal friend than a mere obituary compilation.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The last meeting of this Society for the session 1869-70 took place on Tuesday evening last; there was hardly the usual number of innocents for slaughter, but two papers and one report were got through. The first was a case reported by Dr. Barker, of Melbourne, wherein a successful operation for extroversion of the bladder in the female was performed. The other was by Dr. Hilton Fagge, and dealt with the minute anatomy of molluscum fibrosum. A committee of the Society reported on the restoration of suspended animation by the methods of artificial respiration invented by Drs. Bain and Pacini. The report clearly showed that the plan invented by Dr. Bain was much superior to any of the others as far as the quantity of air changed at each action was concerned, but as besides the quantity of air changed other things have to be considered, as, for instance, the existence of chloroform vapour, or blood and froth in the air-passages, the committee declined to recommend any alteration of the existing arrangements made by the Royal Humane Society. If, however, it was Dr. Bain's wish to establish clearly the superiority of his mode of artificial respiration over all others, he has decidedly succeeded, and nothing could be more convincing in this way than the figures of the committee themselves. They were, however, perfectly right in refusing to mix up the two separate questions as to the best methods of restoring suspended animation and of inducing artificial respiration, but we also think that Dr. Bain is entitled to a distinct avowal of the superiority of his method for effecting the latter.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting of this large and important Association will be held at the Freemasons' Tavern, Great Queen-street, Lincoln's-inn-fields, on Wednesday, July 13, at 5 p.m. The necessary routine business being completed, the President will deliver his inaugural address, which, as on previous occasions, will be found of much public interest. As very considerable success has attended the spirited and energetic public action which this Association has pursued (of which the recent interesting debate and division in the House of Commons on the Superannuation Bill is a signal proof) it is earnestly hoped that Poor-law Medical officers generally will make an effort to attend the meeting. We also trust that members of the Profession, not connected with the Poor-law service, will honour the meeting with their presence, and thereby aid the President and Council in their desire to treat with becoming consideration and respect those members of the legislature who have signified their intention to attend and dine with the Association. Gentlemen who intend to be present are requested to apply to J. Norton, Esq., 38, John-street, Bedford-row, or to Benson Baker, Esq., 42, Grove-road, Regent's-park, Honorary Secretaries to the Dinner Committee, on or before Saturday, July 9.

THE EPIDEMIC OF SMALL-POX AT PARIS.

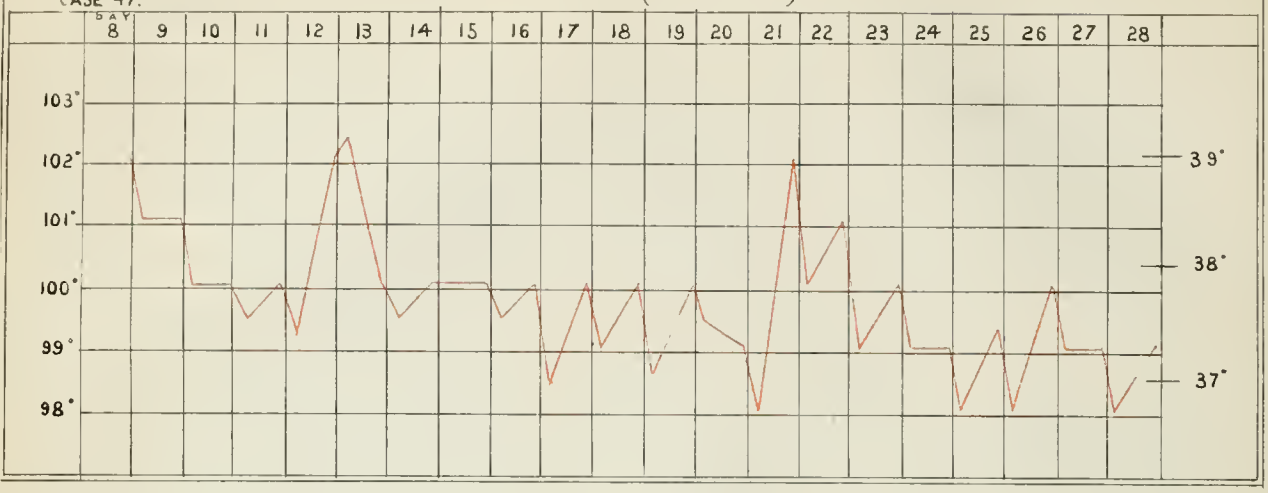
It seems that the discussion on this subject at the conference held June 22 was much more orderly and useful than its predecessors. The supporters of crotchets and the opposers of vaccine were put down as mere wasters of valuable time. One feature of the meeting was the number of communications that flowed in from the provinces, and the tenor of these was quite unmistakable, demonstrating by statistics the preservative efficacy of vaccination, and the great superiority of the Jennerian virus over its new rival. Among other correspondents, M. Robert, of Chaumont, relates how he arrested an epidemic in that town of 8000 inhabitants by instituting revaccination *en masse*. One of the most important communications was that of M. Burdel, of Vierzon. Among 399 Jennerian vaccinations practised between September, 1869, and March, 1870, not a single case of variola appeared, and among 167 cases of variola with 43 deaths, 64 of the patients who had not been vaccinated furnished 32 of these deaths—*i.e.*, one-half, while 103 who had been vaccinated furnished but 11, or less than a tenth. Various communications from Paris corroborated the statements of the provincial correspondents. A letter from M. Pasquier, Principal Medical Officer of the Garde de Paris, was especially conclusive: of 2007 men vaccinated, revaccinated, and "survaccinated," only two had slight varioloid; while 1697 of their women and children, not compelled as they themselves were to undergo vaccination and revaccination, furnished 10 cases of variola.

The reading the report of the Consultative Committee of Hygiène, which we noticed last week, in which it was stated that the present outbreak of variola was no sudden thing, the disease having been rapidly on the increase during some years past, elicited a very natural expression of surprise on the part of M. Marshal de Calvi, that a government apprised of all this, and professing to have the care of the public health at heart, had taken no precautions to prevent what has happened. This is undoubtedly a home thrust, and he maintains that, in fact, there is no organisation for public health in France, the Hygiène Committee and the Academy of Medicine only replying to such questions as may be put to them. M. Amedeé Tardieu reiterated his opinions upon the active agency of meteorological conditions, but M. Gallard replied that this was a curious time to select for expounding them. Passing the day in watching ozone turning the paper blue, and the direction of the weathercock, seems a singular occupation when an epidemic is raging in and decimating one's home. All search for specifics for variola are equally illusory, for the only safe means of action we have are isolation and vaccination, as has been abundantly shown. Had revaccinations been sufficiently numerous, and as well performed as elsewhere, the epidemic influence would have been annihilated as in other places; but the neglect of the rules laid down by M. Bousquet has led to what is now going on. The inferiority of the virus taken from revaccinated subjects is a main cause. Another principal one is the substitution of heifer virus for the Jennerian, under the fallacious pretext of the frequency of vaccinal syphilis; for it has been amply demonstrated that this virus has become already enfeebled by successive inoculations from calf to calf. Hence the number of failures with this virus, and the occurrence of variola in so many who believed themselves protected. M. Lanoix, in reply, declared that animal vaccination had failed because it had been improperly performed. His assertions of the superior efficacy of this virus were strong and absolute enough, but the proofs he advanced were feeble, vague, and undecisive, and in nowise counteracted the strong impression which M. Gallard's address had produced on the meeting.

By a remarkable coincidence, the number of deaths from small-pox for the week ending June 25 was the same (238) as that during the preceding week, the total mortality being in the one case 1149, and in the other 1146.

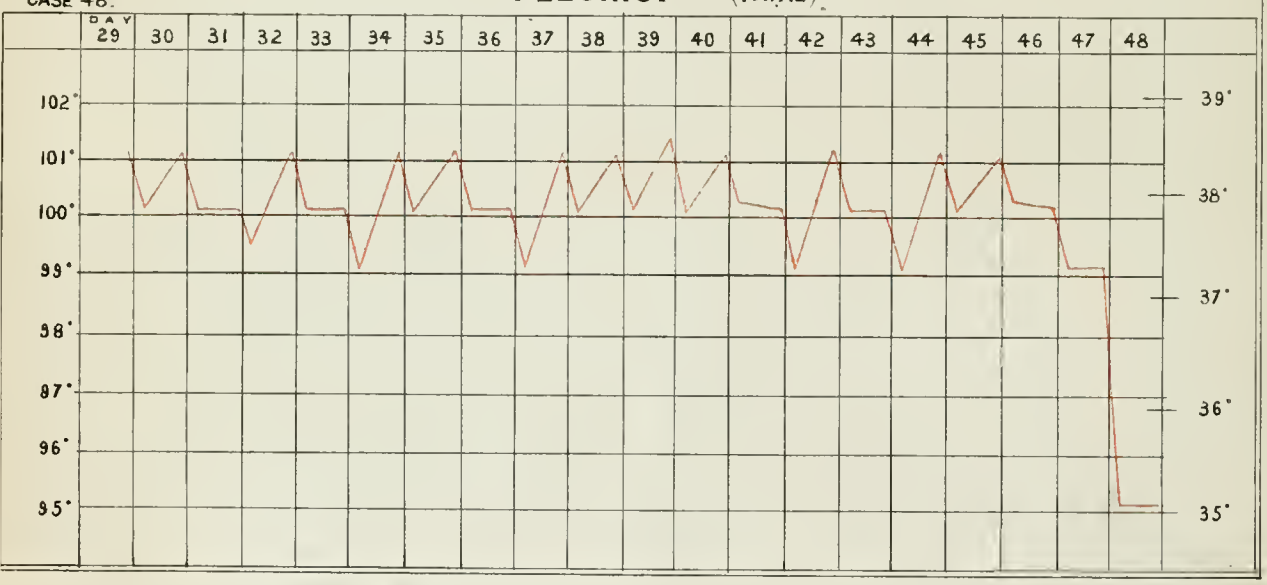
CASE 47.

PLEURISY (EFFUSION)



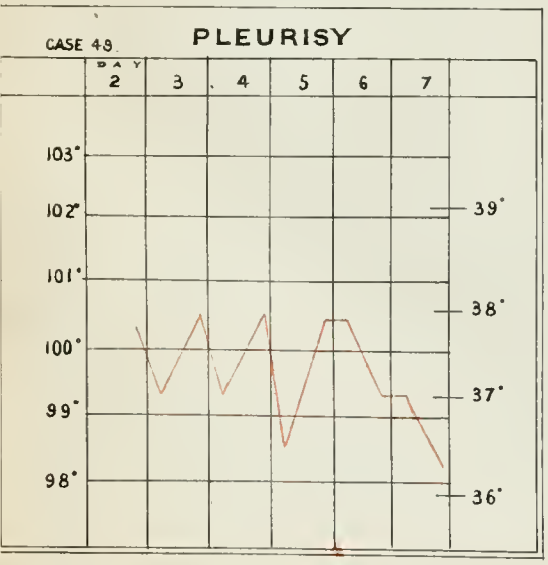
CASE 48.

PLEURISY (FATAL)



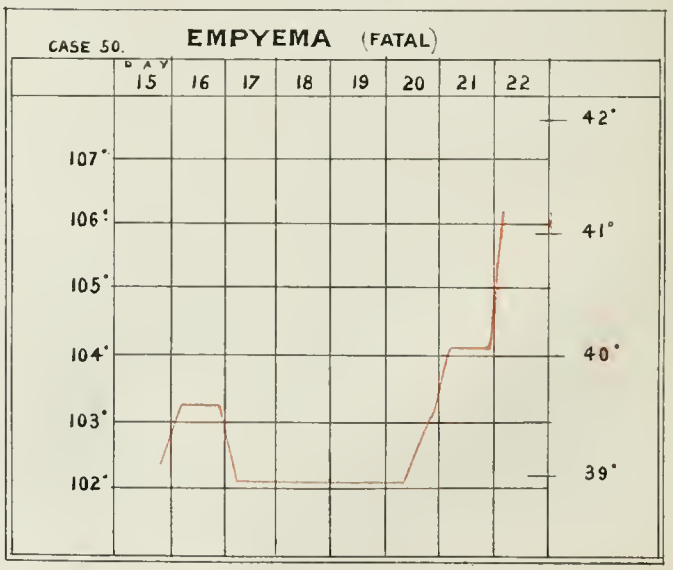
CASE 49.

PLEURISY



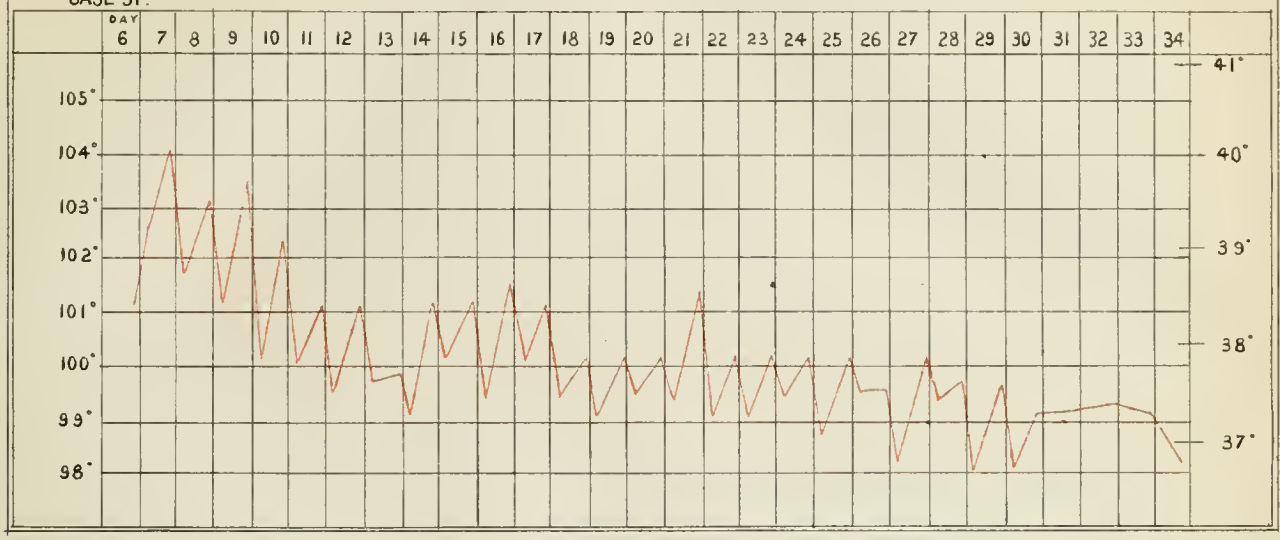
CASE 50.

EMPYEMA (FATAL)



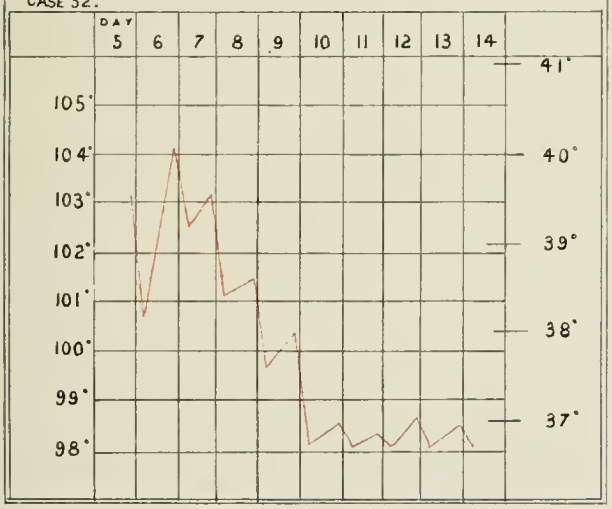
PLEUROPNEUMONIA

CASE 51.



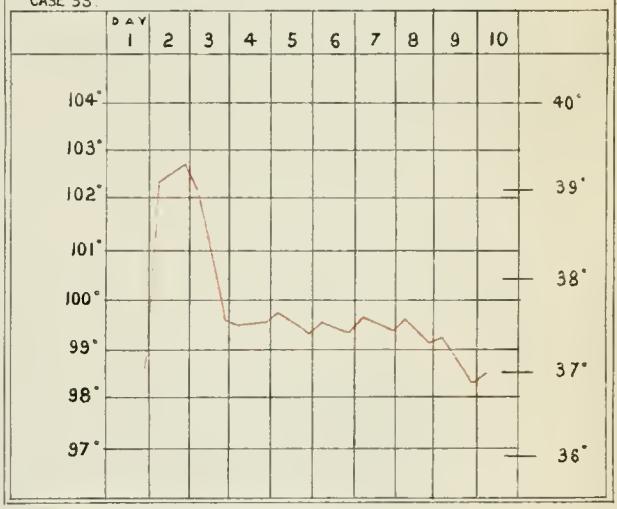
PNEUMONIA

CASE 52.



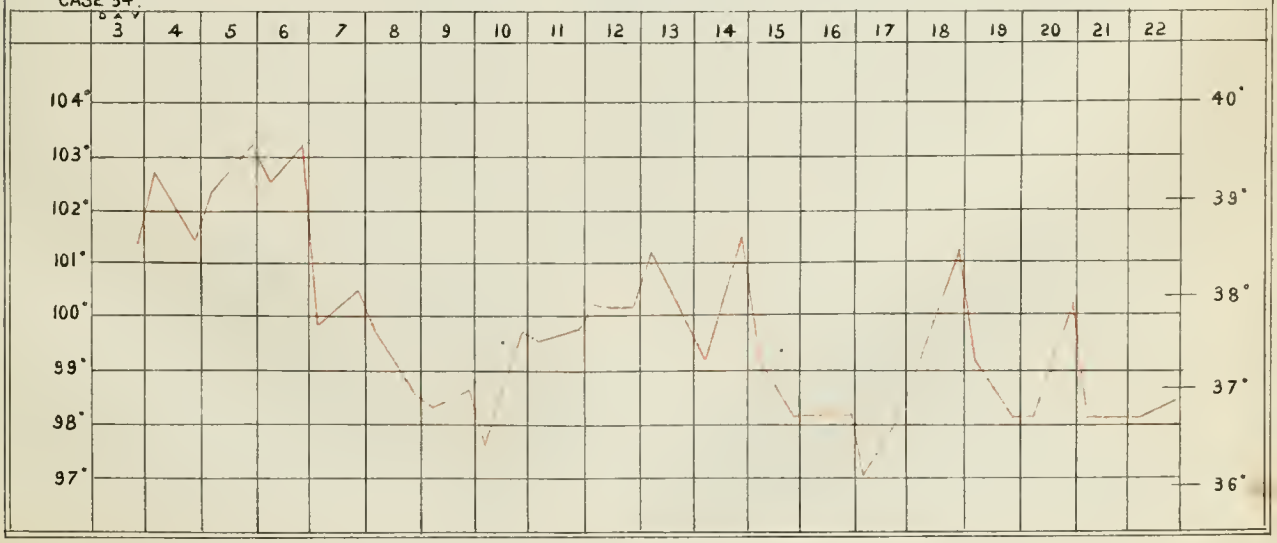
PNEUMONIA. RENAL DROPSY

CASE 53.



DOUBLE PNEUMONIA

CASE 54.



ST. PANCRAS PARISH AND ITS MEDICAL OFFICERS.

This extensive parish is at present without any Medical officers for the out-door poor. The time of service of the late officers expired before the guardians had re-elected them, or carried out the scheme they contemplated, referred to in our last. The consequence is the late Medical officers are actually acting from charitable motives, and *pro tempore* until some arrangement is carried out. The late Medical officers have been treated in a very unceremonious and unjustifiable manner. They have memorialised the Poor-law Board, and urge the following reasons, amongst others, why the Board should interfere to protect them:—First, on the ground that injustice will be inflicted on the memorialists; second, the sick poor will not have better attendance: third, the expenses ultimately will be increased; fourth, the claims to permanence of appointment are at an end; fifth, the memorialists are excluded from the benefits which they might reasonably have calculated upon for superannuation; sixth, the elected *exclusive* officers must necessarily be the young and inexperienced; seventh, no man of worth would accept the appointment permanently; eighth, private practice afforded an incentive to Professional zeal and reputation—a guarantee that public duties would be properly performed. In a second memorial the late officers say that they understand that the guardians do not intend to reappoint them; that they were elected by the vestry before the passing of the Metropolitan Poor-law Act; that that appointment was under seal, and considered to be for life. These were the chief points urged by the memorialists upon the Poor-law Board. To us they seem unanswerable—*nous verrons*.

THE VALUE OF AN OLD REMEDY.

We have received the report of a case showing the value of an almost discarded, but, in its proper place, most valuable remedy, which occurred a few nights ago in the practice of Mr. Roberts, of St. John's-wood. A patient of Mr. Roberts, a gentleman 39 years of age, who had seen very active service in the army, and had suffered from epileptic attacks, due in the first instance to exposure to the sun during an engagement in New Zealand some years ago, was seized with neuralgic pain in the temples on the 15th of this month, and on the evening of the 17th, after excitement, with complete unconsciousness from congestion of brain, followed by violent convulsive paroxysms recurring about every nine minutes. From the commencement of the seizure there was blowing respiration and stertor, extreme contraction of the pupils, labouring pulse, and general insensibility. Counter-irritation and other measures were applied with no effect for an hour and a half, when death seemed imminent, the trachea and pharynx being charged with fluid secretion, and the breathing deeply embarrassed. In this extremity the administration of remedies by the mouth being impossible, and death imminent, it was determined, after consultation with Dr. Richardson, who had been called in by Mr. Roberts, to resort to free general bloodletting. Twenty-four ounces of blood were drawn *pleno rivo* from a vein in the arm, and the good effect may be said to have been immediate. The convulsive action ceased at once, the breathing became tranquil, the pulse rose and lost its hardness, the contracted pupils relaxed, the blood, at first of deep black colour, became red, and, towards the end of the bleeding, the patient so far recovered consciousness as to raise his hand to rub his mouth, and to cough and spit up freely the fluid contained in his throat. He gradually recovered without any recurrence of the attack, and on the fourth day was out of danger. The facts of a case such as this speak for themselves, and recall the attention of the Profession, better than any argument, to the importance of relearning something from the fathers of practical Medicine. A century ago such results of treatment were common-place; now they are exceptional.

THE CONTAGIOUS DISEASES ACT.

The *Pall Mall Gazette* says that when the opponents of these Acts when lately declaiming against their tyranny at a public meeting, they were challenged to prove a single instance. The challenge was accepted by Mr. Baxter Langley and his friends. Three referees were appointed by the contending parties to hear the evidence on each side, and declare their judgment thereon. The result was as follows:—"After prolonged and careful hearing of the evidence as adduced on both sides, we, the referees, have arrived at the following conclusion—viz., that from the evidence adduced we do not consider that an abuse of the Acts has been proved.—Signed, Alfred Rooker, Alexander Hubbard, J. N. Bennett." The referees go on to state that, having regard to the evidence of good conduct of the person alleged to have been wrongfully brought under the Acts, they have not arrived at the above conclusion without hesitation.

LABOURS OF THE POLICE.

Under this heading some correspondence has taken place in the *Times* newspaper. A Hospital visitor complains that, in cases when police officers take prisoners to be treated, a constable is stationed in view of the prisoner, and does not leave him until he is able to be removed. This, we know, is a grievance that has been often the subject of complaint. It is disagreeable to the inmates of a ward, as well as placing unnecessary duties on the police. It is now stated that, in all such cases, a report is made to the Commissioner. If the Hospital authorities are willing to be responsible for the safe keeping of the prisoner, and undertake to communicate to the police when the patient is fit to be removed, the presence of a constable is dispensed with. If the Hospital authorities refuse all responsibilities, the police remain responsible for the custody of the prisoner.

PARLIAMENTARY.—REPRESENTATION OF THE PROFESSION IN THE GENERAL MEDICAL COUNCIL — MARCHING TROOPS IN HOT WEATHER—THE POOR-LAW MEDICAL OFFICERS' SUPERANNUATION BILL—THE GOVERNMENT MEDICAL ACT (1858) AMENDMENT BILL IN THE LORDS.

On Thursday, June 23, in the House of Lords,

The Marquis of Westminster presented a petition from the British Medical Association, and also from the Lancashire and Cheshire branch of that association, for a larger representation of the Profession in the General Medical Council.

On Monday, June 27, in the House of Commons,

Questions in reference to recent fatal cases of sunstroke during the march to Aldershot in the 9th and 94th regiments were put to Mr. Cardwell by Mr. Dent, Lord Ernest Bruce, Sir P. O'Brien, Mr. Sclater Booth, and Lord E. Cecil.

Mr. Cardwell replied by stating that only two men, one in the 9th and one in the 94th, had died. The death of the latter was believed by the Medical officer to be partly due to excessive drinking. Mr. Cardwell added that greater attention should be paid in the future to the regulation, which requires that marches shall begin at as early an hour as the season of the year will permit.

On Tuesday, June 28,

The Medical Officers' Superannuation Bill, as amended, was considered.

On Wednesday,

The Medical Officers' Superannuation Bill was read a third time and passed.

On Thursday, in the House of Lords, their Lordships went into Committee on the Medical Acts (1858) Amendment Bill, and on clause 2,

The Duke of Richmond remarked that he concurred in the desirability of securing a standard of Medical qualification, but he objected to the serious manner in which the Scotch Universities were affected. In the University of Aberdeen, of which he had the honour to be Chancellor, the operation of the Bill would in a pecuniary sense be most disastrous. Under an ordinance of 1860, to the regulations laid down in which it had scrupulously adhered, it had passed about one-third of the whole number of Medical licentiates in the kingdom, and there was no reason to think that its standard was lower than that of any

other body. He had placed some amendments on the paper, but on consideration he found that their scope would be much wider than he intended, and that they would strike at the root of the Bill. He felt that, had he been prepared to go thus far, he ought to have taken the sense of the House against the Bill on the second reading, and he should, therefore, not move them, with the exception of an amendment in this clause, defining the subjects in which candidates should be examined.

Earl de Grey was glad that the noble duke, with his usual candour and fairness, had forborne to press his amendments, which would render the Bill quite worthless. There was no objection to the present amendment.

The amendment was then agreed to, and clauses up to 12.

On clause 13,

Earl De Grey proposed an amendment making it the duty of the General Medical Council to grant the licences. This, it had been represented to him, would be more likely to ensure uniformity of standard than if the licences were granted by each of the three examining boards to be constituted in the three kingdoms.

The amendment was agreed to, and clauses 13 to 16 were ordered to stand part of the Bill.

On clause 17,

The Marquis of Salisbury remarked that this clause enabled the Medical Council to inquire into any allegation against a Medical Practitioner of infamous or disgraceful conduct in any Professional respect, and on proof of such charge to erase his name from the Medical Register, thus depriving him of his livelihood. Now, charges against military or naval officers were inquired into in open court, but this inquiry might be secret, and though in the case of lawyers there were analogous powers, lawyers were better fitted to exercise them than persons who had not had a legal education. He would suggest an appeal to the Privy Council or some other authority.

Earl de Grey assured the noble marquis that the only advance made by the clause on the existing law was the addition of the term "disgraceful." This had been done on account of a strong representation by the General Medical Council of their inability to deal with several highly discreditable cases, when it would have been most desirable to erase the names of the offenders from the Register. This punishment, moreover, would not prevent their still practising Medicine, for all that the Bill did was to forbid non-registered persons from assuming titles calculated to mislead the public as to their real position.

The clause was then agreed to.

On clause 18,

Lord Cairns admitted the propriety of prohibiting the various bodies now conferring Medical degrees, from conferring the title of licentiate, which would be that granted by the State Examination Board. He thought, however, that those universities which now required, or might hereafter require, graduation in arts as a preliminary qualification for graduation in Medicine or Surgery, should be allowed to grant other Medical degrees, not only to persons who had already passed the examination board, but to persons who had not yet become licentiates, though, of course, in the latter case, such degrees would not obviate the necessity of obtaining the degree of licentiate. Non-educating bodies might fitly be precluded from conferring other Medical degrees, except on persons who were already licentiates, but without this concession to educating bodies, such as Oxford, Cambridge, and Dublin, students would be withdrawn from the Universities before the completion of their curriculum, and the position of the Profession would be seriously lowered. The noble and learned lord proposed an amendment in this sense.

The Duke of Richmond and the Earl of Powis also objected to the amendment on the part of the Universities of Aberdeen and Cambridge, and after some conversation the amendment was negatived without a division, and the clause as amended was ordered to stand part of the Bill.

The remaining clauses, after certain amendments, were ordered to stand part of the Bill.

The schedules were also agreed to, and on the question that the Chairman report the Bill with amendments to the House,

The Earl of Lichfield said a petition had been presented to their Lordships from the British Medical Association praying that a clause might be inserted in the Bill providing for the direct representation of the Profession in the General Medical Council. The measure would not be acceptable to the Profession generally unless some such provision were inserted in it. There could be no doubt that the petition accurately represented the views of the Medical Profession, seeing that it emanated from a body comprising 4000 members of the Profession, and that similar petitions had been presented by several of the Colleges; while, as he believed, a memorial had also been addressed to the Lord President of the Council setting forth the opinions of 10,000 members of the Profession on that point. He was quite aware that the subject had been brought under their lordships' notice at too late a period for anything to be done then with reference to it, but he thought it would be right that an opportunity should be given for the consideration of the matter, and with that view he proposed to move, on the bringing up of the report, the insertion of the clause suggested in the petition to which he had alluded.

The Chairman was then ordered to report the Bill with amendments, and the House resumed.

THE MEDICAL ACT AMENDMENT BILL.

MEETING OF THE FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS,

CONVENED BY THE PRESIDENT AND COUNCIL OF THE COLLEGE.

TUESDAY, JUNE 28.

A MEETING of the Fellows and Members of the Royal College of England, was held at the College, Lincoln's-inn-fields, on Tuesday last, at 3 in the afternoon, for the purpose of considering "the advisability of petitioning Parliament in the name of the Fellows and Members at large in favour of the restoration to the Medical Act (1858) Amendment Bill, of the original clause 18 of the Bill, viz:—18. After the date fixed for the commencement of the examinations of any Medical Examining Board under this Act, none of the Medical authorities shall grant any of the qualifications mentioned in Schedule (A) to the principal Act as amended by this Act, or by any of the Acts mentioned in the first schedule to this Act, except to persons registered or qualified to be registered under the principal Act."

The President, Mr. Cock, occupied the chair. There were also present, among others, Sir William Fergusson and Mr. Solly (vice-presidents), Messrs. Birkett, Busk, T. Spencer Wells, Erasmus Wilson, Heath, Clarke, Partridge, Wright, Dorrett Stone, Gant, Brooke, Morrant Baker, G. Cooper, Spencer Smith, Rogers Harrison, Semple, Mitchell, Henry James, and Hancock. There also attended from the provinces the following Members:—Mr. Wheelhouse (of Leeds), Mr. Gamgee (of Birmingham), Mr. Heckstall Smith (of Crawford).

The PRESIDENT, in opening the proceedings, said:—The business upon which we are called to-day has been so fully explained by the advertisement in the public papers and by the notices sent round to all the Fellows, that it is hardly necessary to make any preliminary remarks. I think it right to say that I am responsible for calling the meeting, being sanctioned in so doing, however, by the Vice-Presidents of the College. It appeared very urgent that our opinion should be sent to the House of Lords before the Bill appeared there; and there was no time to take the usual steps of calling together the Council of the College in the first instance. The Bill as it exists at present is not the Bill which was first presented to Parliament, and which was under your consideration when we met last within these walls. The 18th clause, which enacted that the only portal to the Profession should be through the examination of a conjoint board, and that no further degrees should be conferred except that portal had been passed, has now been abrogated; and the Bill, as it stands, is so emasculated by being deprived of this great feature, that we judged it right to call upon you for your opinion and sanction in petitioning the House of Lords on the matter. In that view we have prepared a resolution, and also a petition to be presented on behalf of the Fellows and Members of the Royal College of Surgeons of England. (Applause.)

Mr. BUSK, in moving the resolution, said it was quite clear, as stated in the petition, that the abrogation of clause 18, instead of rendering the entrance to the Profession more simple and uniform, would have a diametrically opposite effect; and instead of there being, as it is now said, nineteen portals into the Profession existing in the United Kingdom, there would be twenty-two. This was an absurdity in itself. It was, nevertheless, perfectly true; and the only effect of the Act, if this 18th clause were left out, would be that, instead of there being in England alone at most three portals into the Profession, there would be four. He left out the universities, in whose interest the abrogation of the clause had been suggested almost entirely in the consideration of this important

matter; for, distinguished as they were as seats of learning, and as conferring degrees which necessarily gave a distinguished social position, they could hardly be said to be "Medical authorities" within the meaning of the Act. The mere fact that scarcely any of the Practitioners of Medicine, except some few in the very high branches, as they are considered, of the Profession, gain admission into the Profession through the portals of the universities, is in itself sufficient to show that their interest in the matter is but very slight—in fact, as regards educating the great bulk of Practitioners, to whom the health of the community is intrusted, the universities do nothing. The Profession at large is made up of Members of the Royal College of Surgeons of England, Licentiates of the Apothecaries' Company, and those who had passed the College of Physicians. In fact, it might be said that, up to the present time, in truth, there had been scarcely more than one uniform portal of admission into the Profession in England, and his (Mr. Busk's) impression was that such a Bill as the present one was not at all required for England. It was different in Ireland and Scotland, where the multiplicity of bodies was very striking, and where the universities occupied an important position in reference to the Medical Profession. Nothing could be more erroneous than to confound the Scotch with the English universities in considering this question, but in the Government Bill they were all placed in one category. For his own part he had the strongest possible conviction that it would be far better no Bill of the kind should be carried, and that the whole thing should be deferred until another opportunity rather than that the Bill should be passed with the omission of clause 18. (Applause.) If this were the proper time, he would venture to say there were two other points in the Bill at least which required even a more serious attention than that of clause 18, important as it was. He alluded in the first place simply *en passant* to the misrepresentation of the Medical corporations in the General Medical Council. They were not represented in anything like the proportion they ought to be. But that was a point upon which it would be improper to enter on the present occasion formally or by way of resolution. The other point involved a pecuniary consideration, and, without referring further to it, he would proceed to move the resolution which had been committed to him, and about which, on the minds of those who had considered the matter at all, he felt there could be but one unanimous feeling.

"That this meeting fully agrees with the opinion expressed in the resolution of the Council of the College of the 9th instant—viz., that the original clause 18 of the Medical Act (1858) Amendment Bill should be re-inserted in that Bill;

"And that a petition, in the name of the Fellows and Members of this College, as represented by this meeting, be drawn up and presented to the House of Lords, praying that, for the reasons stated therein, the original clause 18 may be restored to the Bill."

The object of the resolution, therefore, was that the meeting should adopt the petition, to restore clause 18 to the Bill.

Professor Partridge, in seconding the resolution, said he entirely agreed with what had fallen from Mr. Busk both in his view of the facts connected with the clause, and in the larger view which he had taken of the difference of position which the Profession held with regard to the Universities in England, and in Ireland and Scotland. He believed that it would be better for the Profession if they had no Bill at all, and if the College of Physicans and some of the other institutions were concurrently to grant degrees. That, however, was perhaps beside the question at the present time, and he only hoped that a unanimous concurrence on the part of the Members and Fellows of the College to this resolution would not bind them to the whole Bill. With this *proviso* he would second the motion with great pleasure.

Mr. Gamgee, of Birmingham, supported the motion. He said the thanks of the College and of the Profession generally were due to the President for having summoned this meeting. He looked upon this as a crisis in Medical history, and in the history of the College; and, although the meeting was not very fully attended, yet he regarded it as an event of incalculable importance. Probably the small attendance was due to the fact that, in the opinion of the majority of the Profession, the chief merit of the Bill consisted in clause 18. If the Bill was to be any good at all, it must contain the one portal clause: otherwise the confusion of the present large number of qualifications would be confounded by what in practice must be an addition to the number in the three kingdoms. The mover of the resolution had alluded to the narrow limits to which the present discussion must be confined. Not having access to the special sources of information which Mr. Busk enjoyed, he (Mr. Gamgee) would plead ignorance of the regulations under which the meeting was held, although he presumed they were such as to limit the discussion to the immediate matter stated in the advertisement. For his part he should have wished that it had not been so confined, but that there had been liberty to go generally into the merits of the Bill. The proposer of the resolution had referred *en passant* to the misrepresentation of the Corporations of the Medical Council, but he (Mr. Gamgee) might be permitted to say *en passant* that he could not see how they were misrepresented, although he was firmly convinced that the vast majority of the Profession were misrepresented, if indeed they were represented at all. It was the representation of the Profession on the Medical Council that he considered to be the most vital question affecting the Medical politics of the present day, and he ventured to think that when we considered the amount of intelligence that had sprung up in the masses of the Profession of late years, and how vastly knowledge and science had been increased among them, there could be no doubt as to their right to a fuller representation in the governing bodies of the Profession. He would draw a comparison from recent Napoleonic history, for he believed there was no greater stroke of imperial policy than when Napoleon appealed from the sections which threatened his throne to the masses of the people of France —(applause)—for in reality they formed the only secure bulwark in the hour of danger. Mr. Bright, in one of his great orations, had well said that, whatever might be urged against free speech, there had been no great change in English history or society which had not been accompanied by a good deal of talk. He (Mr. Gamgee) believed that free and open discussion and a widened representation always proved a great acquisition of strength and stability to any governing body. With these remarks he would conclude by a renewed expression of conviction that the restoration of clause 18 is absolutely essential to the restoration of any merit which the Bill originally possessed, and he would beg furthermore to add a hope that the time might not be far distant when the Medical corporations would understand "that there is no conservatism so wisely liberal as that which timely concedes, no radicalism so destructive as that which is blind to the necessity of adapting institutions to the growing wants of the times." (Applause.)

Mr. Adams said the Profession was altogether in a most unsatisfactory condition at present. From time to time measures were brought before Parliament for its better regulation. But with all, at this time, in the year 1870 we found ourselves still complaining that we were not fairly estimated or properly treated by public opinion. It was necessarily so when any man that pleased, without any authority whatever, could call himself a Surgeon, could represent himself to be a Medical man, and act upon that representation without being called to account. With regard to the examinations of the College of Surgeons, the College of Physicians, and the Apothecaries' Company, they were excellent as far as they went: but a general and extensive diploma would be far more beneficial to the Profession and to public.

Mr. Heckstall Smith said that in the whole course of the progress which had been made of late years in Medical reform, nothing had given him so much surprise as the omission of clause 18 from the Bill. It was the essence of the whole measure, and if it was given up it would be better to forego legislation altogether for the present, and to begin the fight over again another year. Many members of the Profession had been for years struggling to accomplish that which they thought they were now on the very threshold of attaining to—namely, the one portal, or something very near that—viz., three portals for the three kingdoms. For his part, he should desire to see only one. With regard to the 18th clause, it was worth any amount of exertion to get it reinstated. Speaking in the presence of the most important Medical authority of the three kingdoms, he hoped that it would aid the Profession in reinstating that clause, and that the College of Surgeons by its Members, its Fellows, and its Council would go in such force to the Government that they would be obliged to give way upon the point. As had been already said, the Bill as it stood at present simply meant the addition of one more examination to the nineteen that already existed. Instead of remedying the crying evils which had been complained of before, it would simply increase them. As to the statement that the clause was struck out only to favour certain universities, because there were men who wanted to enter into the Profession for the mere honour of the thing, he (Mr. Heckstall Smith) would say let those gentlemen go and be made divine doctors by the Archbishop of Canterbury.

It was very proper—he did not object to it—to have beautiful vases set up for ornament in order that people might admire them, but whether they should be allowed to practise was another matter.

Mr. Rogers Harrison was unwilling to give a silent vote on the subject, because it was most gratifying to find the College taking the lead in endeavouring to restore clause 18 to the Bill. When it was found that the President and the Vice-President of the College were stirring themselves in this matter, it was a subject of congratulation, because it showed that the heads of the College were willing to come forward to repair any laxity that they might have shown in the past. (Applause.)

Mr. Christopher Heath, fully coinciding with all that had been said by the previous speakers, wished to call attention to an expression used by Mr. Busk with reference to the representation of the Profession on the Council. It was a great thing to get a member of the Council of the Royal College of Surgeons to allow that. Mr. Busk had said that the corporations were very inadequately represented. If by that he meant that the corporation consisting of the Fellows and Members of this College were inadequately represented, he (Mr. Heath) quite agreed; but it seemed a little odd to hear such a statement from a Fellow of the College when, on Tuesday next, the Council alone would proceed to elect a representative for five years. He took this opportunity of protesting against this method of election, which was a simple usurpation. The Fellows and Members were the corporation of the College of Surgeons, and they alone had the right to elect a representative. At the same time he quite agreed with Mr. Busk in what he had said, if he meant that the College of Surgeons ought to have more than one representative on the General Medical Council. Considering that they had a constituency of some 30,000 odd, and only one representative on the Medical Council, and considering that Durham University, which had perhaps a dozen M.D.'s, had also one representative on the Council, it was pretty obvious that there was a great inconsistency somewhere, and that the Royal College of Surgeons should, in common fairness, have ten or twelve representatives, who should be elected by the Members at large.

Mr. Gant thought it would be objectionable that the petition should go up to the House of Lords apparently expressive of all the desires of the Profession respecting the Government Bill. Because, although many observations had fallen from Members present with reference to other parts of the Bill, still if nothing were appended to the dry resolution, it would appear as if the Fellows and Members at large were abundantly satisfied with the Bill. Might it not, therefore, be possible (although the meeting was not strictly convened for the purpose) to add an expression of opinion that with reference to the question of representation on the Medical Council, the Fellows and Members of the College would not be satisfied with the Bill in its present state at all, or with any Bill which does not satisfy their just claims to representation in the Council. If such a rider were in order, he would be happy to move it in the following words:—"Furthermore, that no amended Medical Act Bill will satisfy the just claims of the Members and Fellows of the College, which does not distinctly provide for their representation on the Medical Council."

The President ruled that such a rider would be *de hors* the object for which the meeting was convened, and that it would therefore be out of order to insert it. It would also rather tend to weaken the force of the resolution, which was directed to that very important point without which the Bill was worth nothing at all. (Applause.)

Mr. Clarke said he had been very much pleased with the remarks which had fallen from the previous speakers. He regarded clause 18 as the fundamental principle of the Bill. No tyranny was so bad as that which worked with the machinery of freedom; and he believed it would be most disastrous to the great body of the Profession if the clause were omitted. Indeed for his own part, looking at the history of the Profession and its struggles for redress, he would rather no Bill should pass at all, than the present Bill, mutilated by the omission of the clause, should pass. It would be playing with loaded dice to sanction such an imperfect measure. He was satisfied with the resolution as it stood, and he thought it ought to be passed unanimously and without any reservation whatever. Because it must be remembered that although the members of the College were not called together for the purpose of discussing the Bill generally, yet they were not without friends in both Houses of Parliament, who were actively engaged at the present moment in fighting the battle of the College. And further it must be borne in mind that if they could carry that important clause they would show their power in the House, and many of the amendments which were threatened, some of the most dangerous character—*e.g.*, that which proposed to take away the funds of the College, would be withdrawn without further opposition. He quite agreed with those speakers who had said that if clause 18 were not reinstated it would be better to have no Bill at all. (Cheers.)

Mr. Busk wished to say a few words, as some misapprehension seemed to have arisen with reference to the terms employed by him in speaking of the inadequate way in which the College is represented on the General Medical Council. Mr. Heath had understood those terms to mean that the number of representatives of this College on the Medical Council is not sufficient. That was really what he (Mr. Busk) intended to convey. His words had no reference as to the mode in which the members of this College should be represented and sent to the Council. He entirely differed from Mr. Heath and Mr. Gant in their view of the matter, because he believed that the scheme for the election of representatives from the general body of the Profession was practically, utterly preposterous, however desirable it might appear to be in theory. He was further of opinion that an immense deal of mischief had arisen from the circumstance of the apparent antagonism which a certain part of the Profession continually manifested towards the Council of the College of Surgeons. Nothing had been more injurious and nothing had been a source of greater weakness to the Profession in the eyes of the public and the Legislature than the attempts that had been made, and were even now being made, to show that the Council of the College does not represent the College. (Cries of "Question," and "We must go into the general question.") He was merely explaining the sense in which he used the words referred to by Mr. Heath in order that there might be no mistake about it, and in order that his views might not be confounded with the views of those who would divide the Council of this College from the College itself.

Mr. Cooper, as representative of the Apothecaries' Society upon the Medical Council, did not wish to say one word which did not bear directly on the subject before the meeting. He had only to express his hearty concurrence in the resolution which had been put, and to say that it had his most cordial support. (Applause.)

Dr. James regretted very much that the Chairman should have ruled it was impossible to add a rider such as that proposed by Mr. Gant to the resolution. He, in order to test the sense of that meeting, would move a direct amendment to it—"That while returning thanks to the President and Council for petitioning the resolution for the restoration of clause 18, this meeting is of opinion that even the restoration of that clause would not satisfy the Profession, and that no Medical Bill will be of any use which does not provide for the representation of the Profession in the General Medical Council, and for one single entrance into the Profession."

Mr. Gant: I will second that.

After some further discussion, however, Mr. Gant thought it would be wiser to withdraw the amendment, considering the importance of the one point for which they were met to petition the House.

Mr. James consented to this withdrawal, and the resolution was put to the meeting and carried unanimously.

The following petition was then read clause by clause to the meeting, and approved:—

> Unto the Right Honourable the Lords Spiritual and Temporal of the United Kingdom of Great Britain and Ireland in Parliament assembled,
>
> The Petition of the Fellows and Members of the Royal College of Surgeons of England,
>
> Humbly Sheweth,—That whereas a Bill introduced into your Honourable House, entitled "An Act to amend the Law relating to the Qualification of Practitioners in Medicine and Surgery, and otherwise to amend the Medical Act, 1858," it was originally proposed, by clause 18 thereof, that the Medical authorities described in Schedule 2 to the Bill, should not in future confer any of the qualifications mentioned in Schedule A to the Medical Act of 1858, except to persons who had obtained the licence to practise under the provisions of the Bill, and whereas in the Bill as "amended on report" such clause 18 has been struck out, your petitioners beg to express their regret at the omission of the said clause 18, and pray that, for the following reasons, the same may be restored to the Bill, viz.:—
>
> That by its omission the main principle of the Bill—viz., the establishment of one uniform system of qualification and examination for admission to the Medical Profession, or, in other words, the establishment of the one portal system—is entirely abandoned.
>
> That by the Bill as it at present stands the Medical authorities will be enabled to confer as heretofore their several degrees and diplomas, which—notwithstanding the provisions of the penal clause (clause 21) of the Bill, and notwithstanding that the possessors of such degrees and diplomas will not acquire any claim to registration under the Medical Act—will undeniably be considered by the public qualifications to practise.
>
> That the Bill in its present form is calculated to keep alive that competition amongst the Medical authorities which it was one of its principal

objects to abolish, for the General Medical Council, instead of being called upon only to supervise the examinations of the three examining boards to be established by the Bill, will have the impossible task of striving to secure uniformity in the examinations of the nineteen Medical authorities as well as in those of the three Boards.

That if the omission of the clause be, as it is understood to be, a concession to certain universities, on the ground that some few persons seek to obtain the degrees in Medicine of those universities without any intention of practising the Profession of Medicine, and that it would be unfair to such persons to require them to pass the examinations of the conjoint boards, such concession is totally uncalled for, inasmuch as it would be in effect, making the interests of the Profession and the public at large, which can only be thoroughly secured by the adoption of the one portal system, subservient to the interests of a few individuals.

That a degree in Medicine is, or should be, a test of the qualification of its possessor to practise Medicine, whatever may be his ulterior motives in taking it, and that it cannot be considered any hardship upon the few individuals in question to require them to pass the examinations of the conjoint board.

That, moreover, it is competent for those persons who are desirous of devoting themselves to science and to literature to obtain from the universities degrees, other than Medical, in evidence of their scientific acquirements and learning.

That, for the foregoing reasons, your petitioners humbly pray that your honourable House will consent to the restoration of the original clause 18 to the Bill, or that your Lordships will refuse to give your sanction to the Bill; and your petitioners, as in duty bound, will ever pray.

Signed on behalf of the Fellows and Members of the Royal College of Surgeons of England, assembled in the hall of the College, this 28th day of June, 1870,

EDWARD COCK, President.

The CHAIRMAN: Gentlemen, we have now concluded our business, and if you would allow me to say a few words they would be to this effect: that what we have done to-day will, through the daily papers and the Medical journals, go all over the country, and probably in a very short time will be seen by all Practitioners in the United Kingdom. Now I am sure that a body of men like the Fellows and Members of the College of Surgeons must have great influence if not in the House of Lords at least in the House of Commons. The great evil is that so few of our members of Parliament know anything about the question. (Hear, hear.) They have never been talked to about it, and I cannot help thinking that if the great body of the Fellows and Members of this College would bestir themselves a little, and would use that influence which they possess, and really endeavour to make the representatives of this Kingdom understand the question a little (which very few of them at present do), it might be of great service, if not in the house of Lords, at least when the Bill comes back again into the lower House.

A vote of thanks was then, on the motion of Mr. Spencer Wells, seconded by Mr. Gamgee, unanimously accorded to the President; and the meeting separated at an early hour.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

Abernethy's Lectures—Reporting under Difficulties—The Chancery Suits and their Results: Evidence of Mr. Lawrence and Mr. Cline.

AT the conclusion of the publication of Sir Astley Cooper's lectures, those of Mr. Abernethy on Surgery were commenced on October 1, 1824. The introductory address was given at 7 o'clock, p.m., and was very numerously attended. He commenced with the proposition that has been more or less always associated with his name, and with which is identified his remarkable work on Local Diseases—*viz.*, "local diseases, injuries, or irritation, may affect the whole system, and induce general disorder, characterised, however, by more especial disturbance of some parts of the system." These lectures were reported by a shorthand writer of the name of Johnson, and who, I believe, was recommended by Mr. Lawrence for that purpose. These lectures were admirably taken, but from the first Mr. Abernethy strongly objected to their publication; and in the course of one of his early lectures thus delivered himself: "I believe I can't prevent it; it is very disagreeable to me, and at least it shall never be done with my sanction. If the hireling of the *Lancet* is present, I demand that he will step forward, and I shall be glad to return him his money. Perhaps I am wrong in supposing that he will come forward here publicly, but if he will not, there is a private room in the house, and a servant will return him his money, or I shall be glad to do so at my own house. God forbid, gentlemen, that I should keep back from you any knowledge that I am able to afford, or that you should not have the opportunity of reaping the full benefit of it. Take the substance of what I say, you are perfectly welcome to it. You have paid for it—it is yours; but I do protest that I think no one has a right to publish it to the world. I do not like it; and certainly he never shall have my sanction for so doing." This was reproduced in an article in the *Morning Chronicle*, with comments. It was no doubt a *ruse* to get at Mr. Abernethy's real objection to the publication of his lectures. The editor of the *Morning Chronicle* was then Mr. Black, the "Doctor Black" of *Cobbett's Register*. Black was a contributor to the *Lancet*, and, no doubt, published the article in his own paper as "a feeler." This article attributed Mr. Abernethy's objection to the full and complete manner in which he was reported, but more particularly to the anecdotes with which he interspersed his deliveries. These "had been criticised with undue severity, and held up as unbefitting the gravity of the Professorial chair." This article was of course answered in a letter to the *Morning Chronicle*, which afforded "the editor of the *Lancet*" a good opportunity of praising up his journal and remonstrating with Mr. Abernethy. As Mr. Wakley believed he had the *legal* right to publish the lectures, of course Mr. Abernethy's invitation was not accepted by the reporter. Mr. Abernethy, finding that he was thwarted in his efforts to prevent the publication going on, resorted to the extreme measure of lecturing in the dark. But this was of no avail; the irrepressible reporter managed somehow to take his notes, and the lecture delivered in darkness saw the light in the next number of the offending journal. "As the devil is amongst us," said Abernethy, "I may as well lecture in the light." But the principle involved was of vital importance, not only to Mr. Abernethy, but to all the lecturers in the metropolis, and at a meeting of some of these gentlemen it was determined to carry the question to a court of equity. Accordingly on Friday, December 10, 1824, the case came on for argument before Lord Eldon, the counsel for the plaintiff being the Solicitor-General and Mr. Rose, and for the defendant Mr. Horne, afterwards Attorney-General, and Mr. Shadwell, afterwards Vice-Chancellor of England. It would be tedious to give in detail the account of the Chancery proceedings, which extended over several days, but it is worthy of mention that in the second application to the Court for an injunction, Mr. Wakley retained Mr. Brougham, who made on that occasion, we believe, his first appearance in a court of equity. The wisdom of choosing a common law lawyer to represent him in an equity court was canvassed at the time, but Mr. Wakley, under the circumstances, was undoubtedly right; for the question at issue was one in which the great advocate was deeply interested, and one, too, which he, of all men, was most able to master. In Mr. Weightman's book—the "Medical Practitioner's Legal Guide"—the case is so well stated and so ably placed on record that I prefer to quote his abstract of the proceedings to wearying the reader with a long account of the matter. Mr. Weightman says, page 53—"In the case of Abernethy *v.* Hutchinson (publisher of the *Lancet*) 3 *Law Journal* (Chancery), 209, 213—219, Mr. Abernethy had filed a bill to restrain the publication in the *Lancet* of certain lectures delivered by him orally in St. Bartholomew's Hospital. Lord Eldon refused to grant the injunction, because the plaintiff was unable to swear that his whole lecture had been reduced to writing at the date of its delivery. Lord Eldon observed: 'Where the lecture is orally delivered, it is difficult to say that an injunction can be granted upon the same principle upon which literary composition is protected, because the Court must be satisfied that the publication complained of is an invasion of the work, and this can only be done by comparing the composition with the piracy.' His lordship, however, upon a second argument, granted the relief prayed, but on a different ground—viz., that of a breach of an implied contract between the lecturer and his audience, that the latter would 'do nothing more than listen to the lecturer for their instruction."

Mr. Weightman then refers, in his most able analysis of the present law of copyright, to the Act of 5 and 6 Victoria, c. 45, by which former Acts are repealed, and thenceforth "the copyright of every book which shall be published in the lifetime of the author, and for the further term of seven years shall expire before the end of forty-two years from the first publication thereof, and shall be the property of the proprietor of the author's manuscript from which such book shall be first published, and his assigns." An Act was passed in 1842 which says:—"The author of every lecture, or the person to whom he has sold or otherwise conveyed the copy, in order to deliver the same in any school, seminary, institution, or other place, or for any other purpose, should have the sole right of printing

and publishing such lecture." Such, then, is the state of the law at the present time. But at the period of the publication of Mr. Abernethy's lectures there was great doubt on the subject, and hence the long, able, and learned arguments, lasting for six days, before the Lord Chancellor. Mr. Wakley, on the decision of Lord Eldon against him, threatened to take the case to the House of Lords, but this was rendered unnecessary in consequence of the injunction being dissolved on Nov. 28, 1825, Mr. Abernethy not opposing a motion to that effect. Thus ended this remarkable instance of litigation. The result was, no one in the future opposed the publication of his lectures. It may not be out of place here to say a word about Mr. Abernethy as a lecturer. He lectured without notes, and in a truly colloquial manner, his style easy, but not very correct; his manner jocose, familiar, and easy. He frequently had his hands in his breeches pockets, and took occasion to make his audience laugh whenever possible. But it must not be supposed that Abernethy was a wit in the proper acceptation of the word. This was far from being the case. His anecdotes were often broad, droll, even funny, but they lacked the wit of Wardrop or even of Elliotson in their lectures. It was the manner far more than the matter which amused the audience of Abernethy. He had a fine presence with a noble development of forehead, small shrewd eyes, a good nose, and a mouth denoting power.

At this time party feeling ran very high in the Profession, and the quarterly journals sided with Abernethy, and some very severe and unwarrantable articles appeared against the *Lancet* and its editor. One of these was published in the *Medico-Chirurgical Review*, edited by Dr. James Johnson. This libel was of such a character that proceedings were taken against Dr. Johnson in the Court of Common Pleas, and the case was tried before Chief Justice Best, afterwards Lord Wynford. The jury awarded the plaintiff £100 damages. It must not be supposed that the "amenities of literature" were all on one side. Far from it. The *Lancet* had been as bitter and as savage as the quarterly, but had steered clear of libel. I have referred to this trial chiefly on account of Mr. Lawrence having been called as a witness on the part of the plaintiff. As in advanced life he was regarded as a "bad witness," I think every one will admit that in the case of Wakley *v.* Johnson he was a "good" one. The cross-examination will, moreover, exhibit to some extent the character of the libel. I may here mention that the counsel for Mr. Wakley were Mr. Denman, afterwards Lord Chief Justice, and Mr. F. H. Kelly, then a young rising man at the bar, and now Lord Chief Baron of the Exchequer. Dr. Johnson was represented by Sergeant Vaughan, afterwards a Baron of the Exchequer, and Sergeant Wilde, afterwards Lord Chancellor Truro. Here is Mr. Lawrence's examination and cross-examination.

"*Mr. Lawrence, examined by Mr. Kelly.*

"I believe, sir, you presided in the chair at the meeting mentioned in the first part of this libel? I did, sir.

"And Mr. Wakley was there? Mr. Wakley was present, sir.

"Have you read the article in this review? I have, sir.

"Have you any doubt, sir, as to the person to whom the parts of it you heard last read apply? Not the least.

"To whom, then? I consider them intended to apply to Mr. Wakley.

"And now as to the latter part on the single page?

"The Chief Justice: What page?

"Mr. Kelly: Page 599, my lord.

"Have you read the whole of that page, and the note? I have, sir.

"To whom do you believe that applies? To Mr. Wakley.

"Throughout? Entirely.

"Entirely? Yes.

"*Cross-examined by Mr. Serjeant Wilde.*

"Probably, sir, before you had read these articles you had heard of a trial with Mr. Tyrrell? I remember the circumstance of a trial with Mr. Tyrrell and the editor of the *Lancet*.

"You have probably heard of some of the other transactions? You alluded to page 599, where it is said, 'Cast in a court of equity as literary robbers.' What did you refer that to? I considered it to refer to the proceedings that had taken place in the Court of Chancery, on the application of Mr. Abernethy, to restrain the publication of his lectures.

"You considered that to refer to the proceedings that had taken place in the Court of Chancery, on the application of Mr. Abernethy, to restrain the publication of his lectures? Yes.

"'And driven from the practice of a profession which they have disgraced.' Did you understand that to apply to him? I considered the whole to apply to him. I did not consider that they were just or well founded; I don't think there were any grounds for them; but I might not know all that Dr. Johnson had alluded to.

"Tell me, sir, why you considered that to apply to him? Did you know anything of this? No; I did not understand that Mr. Wakley, to whom I believed all the observations to apply generally, had been driven from the Profession, nor do I now believe in point of fact that he has.

"But I want to know whether you believe that to apply to him? The whole.

"And you were not aware of any other person to whom they could be intended to apply? I never had the least doubt of their being applied to Mr. Wakley.

"Now, will you give me a reason, Mr. Lawrence, why you consider Mr. Wakley, the plaintiff, spoken of as a person who had been in the habit of censuring the editor of this book? Had you any knowledge of circumstances to induce you to suppose that he was the person so spoken of? I had been in the habit of reading the *Lancet*, published by Mr. Wakley, and of seeing his remarks.

"I don't ask you what reason you had for it, but you had been in the habit of reading the *Lancet*? Yes, I had.

"Were you assisted at all in determining who this applied to by reading the *Lancet*? If I had not read it, I don't know that I should have known to whom it applied.

"Very well. Mr. Lawrence, how long is it since you became acquainted with this action? Have you had any conversation with Mr. Wakley upon it? Respecting this action? Yes.

"On the matters of it? I think, having seen Mr. Wakley on other business, on one occasion he spoke of it incidentally.

"Pray in the course of that conversation did you give him any such advice as this—that he was a great fool for bringing the action, and that he had better take back his own sauce? No.

"Did you ever use that expression to anybody? Never.

"Never? Never.

"Never to the bookseller, nor to any body else? No.

"Lord C. J. Best: How can that be evidence?

"Mr. Serjeant Wilde: Do you know a Mr. Wilson? I do."

In connexion with evidence, I wish here to correct an error into which I fell respecting Mr. Cline as a witness. It was in favour of Thelwall, not of Horne Tooke. It is worth reproducing for the simplicity and straightforwardness of his answers.

"*H. Cline, Esq., sworn, examined by Mr. Erskine.*

"What is your profession? A Surgeon.

"Are you the gentleman who gives anatomical lectures? I am.

"Are you acquainted with the gentleman at the bar? I have known him about seven years.

"Has your acquaintance with him been up to the present time? Yes.

"Have you known him intimately? He frequently came to my house.

"Have you had an opportunity, from that acquaintance, of knowing his principles and conduct? I have had frequent conversations with him, and I believe, from the knowledge I have had of him, that he has been a very moral man, otherwise he would not have been admitted to visit at my house. I always conceived that he had no bad intentions, so far as I was acquainted with him.

"Did you keep up your acquaintance with him founded upon that belief? Entirely so.

"Have you dropped his acquaintance now? No."

It was on this trial that what is called "sharp firing" originated. Thelwall, having been struck with the success of Horne Tooke in getting off by his own exertions, wrote on a slip of paper to Erskine, "I will defend myself." On the same paper, Erskine wrote, "If you do, you'll be hanged." "Then," wrote Thelwall, still on the same slip, "I'll be hanged if I do."

THERE have been presented to the House of Commons 662 petitions, bearing 456,465 signatures for the repeal of the Contagious Diseases Act (Women).

DR. T. B. CHRISTIE has been presented with a solid silver tea-kettle as a testimonial from the officers and servants of the North Riding Lunatic Asylum, Clifton, on his leaving there, and being appointed Resident Medical Superintendent of the Royal India Lunatic Asylum, Ealing.

PROFESSOR STRICKER ON THE QUESTION OF INFLAMMATION.

This question, so important in relation to pathology and Medicine in general, occupies at this moment the attention of two of the most rising German physiologists—namely, of Professor Cohnheim, of Kiel, and Professor Stricker, of Vienna. They stand in diametrical opposition to each other, and the pivot upon which the discussion rotates involves a question of no less importance than that of "humoral or cellular pathology." Cohnheim is the champion of the first, and consequently rejects the teachings of Rokitansky, Virchow, Billroth, etc., on this point. Stricker, on the contrary, advocates the latter, and endeavours to reinstate the authority of those pathologists. We subjoin, therefore, an abstract of an address relating to this subject, recently delivered by Professor Stricker before the Medical Society of Vienna.

I shall shortly supplement, says he, my views expressed last year on the inflammatory process by the results of further researches, but I have special reasons for making in the meanwhile the following statements:—

I have again experimentally and carefully examined the inflamed cornea of a frog, and the results of this examination enable me to declare that the inflammatory alterations of the corpuscles of the cornea may, as I formerly stated, be ranged among the best demonstrated facts with respect to cellular pathology.

Pathologists will at once perceive the scope of such a statement. I must, nevertheless, express more precisely the principles I have in view. According to the earlier teachings of cellular pathology, the following propositions may be laid down:—

The life of an organ is the expression of the form-elements of which it is composed.

Disease designates merely a phenomenal mode of life.

When we say an organ is diseased, we indicate thereby that its vital processes are abnormal.

With reference to the first proposition we indicate also thereby that the life of the form-elements equally deviates from the normal condition.

These fundamental propositions have been contradicted by Cohnheim as regards the cornea.

If, argues Cohnheim, those cells of the cornea not directly affected by irritation, are, as living organisms, not impelled to an abnormal life, then the above principles cannot stand; then we must differently define that disease of the cornea which Physicians call inflammation; then this disease is no longer the expression of another phenomenal mode of life.

If keratitis, under certain circumstances, signifies only a cornea clouded by foreign immigrants; if after the removal of the intruders the previous conditions are reinstated in their full integrity; then the principles of cellular pathology are no longer applicable.

If, further, as has been done, the dogma of Cohnheim is generalised, then the principles of cellular pathology are generally no longer applicable.

I have made a stand against such conceptions by showing that the cells of an inflamed tissue exhibit an altered mode of life, that they return to an embryonic condition, that their nuclei increase, grow, become amœboid and multiply. My late researches fully confirm these statements; I cannot in this place enter at length into these researches. I will nevertheless indicate a means by the aid of which Professional men who, perhaps, may not be practised experimentalists may by the application of the microscope convince themselves, at all events, of the most important point—namely, that in intensely diseased spots of the cornea mere traces are found of the normal corpuscles, and that smaller more nucleated elements have supplanted them.

Cut out the cornea of a healthy frog, bathe it for about ten minutes in a half per cent. solution of chloride of gold, place it in acidulated water, remove, after a few minutes, by gentle shaving, the anterior epithelium; replace the cornea in the acidulous water, and examine the preparation after a day or two, and you will convince yourself of the normal arrangement of the corneal corpuscles in this animal.

Immediately after cutting out one cornea, pass a needle with a strong double hemp-thread through the centrum corneæ of the other eye and its sclerotica, knot the thread, and cut it short. After two or three days, cut out this cornea also, and treat it as before. The anterior epithelium is here more easily detached by pincers as a whole lamina than in the healthy cornea. It is equally easy to detach the membrane of Descemet. The rest of the preparation—namely, the substantia propria—is then in glycerine, during the first few days at least, so transparent that no even moderately practised microscopist can find any difficulty by means of rather high powers (No. 10 Hartnack) in examining it in all its depths. Should this method as regards the depth dimensions not prove sufficiently satisfactory to any one, let him tear the propria into lamellæ, and examine them separately. Let him first with a low power search out the spots in which the form-elements in their strata are most thickly arranged. I must leave it to the judgment of the professional inquirer to draw from the examination of these spots such inferences as may be generally deduced.

Should it, in spite of these spots, be asserted that the old corneal corpuscles were covered, and could not be seen, then I must—apart from the circumstance that such an objection would not be admitted by a practised microscopist—advert to the fact that it was just the discovery of old corneal corpuscles amidst the thickest crowd of pus corpuscles which first impelled Cohnheim not to regard the former as the sources of suppuration. If now the old corpuscles cannot be detected in certain spots, then the "impelling momentum" vanishes.

As I here address a large public, I must abstain from entering upon the method of research which has enabled me to prove the cell-division, and also that the corneal corpuscles become amœboid. Such methods will always remain the property of a very limited circle of inquirers.

So long, therefore, as these questions are contradicted, I can do nothing but wait until competent and unprejudiced inquirers take up this subject. But the illustrations, which are now ready, and to which I again refer, are accessible to a larger circle, and I fully expect that they will confirm my statements.

The results of further researches will appear in another place. This much I may say, that the same principle, the growth and the increase of cells, show themselves in all inflamed organs. We cannot at present cultivate the pathology of the tissues without acknowledging this tenet.

In a former treatise I passed with one step beyond the doctrines of cellular pathology. I tried to demonstrate that disturbed circulation and exudation of fluid, shapeless, and shaped constituents of the blood, play an important part in the chain of inflammatory phenomena. In this direction I have also advanced, or, to speak more correctly, retrograded. I must at present range stasis among disturbances of the circulation, and I shall, in the proper place, produce the necessary proofs for this view.

As it was my intention to give this day only a summary, I must confine myself to a simple indication, from which, however, you may infer that I conjoin two historically separated theories long held to be incompatible. I accept again the symptoms of inflammation as taught by Rokitansky. I say that inflammation includes redness, stasis, and exudation, and I leave this old exposition at the point where the progress of the cellular theory has led us to securer roads. With exudation I combine the processes in the cell-elements, as taught, and we may assume will still be taught, by Virchow. I moreover see with pleasure that there obtains a disposition logically to conjoin one part of the teachings of Rokitansky with one part of those of Virchow. I see also with satisfaction that the theories of successive systems, which were successively adopted and successively rejected, are now looked upon as reconcilable.

Cigarettes of Cannabis Indica.—The cigarettes of Cannabis Indica, made by Gremault, of Paris, have been found most efficient in the treatment of affections of the organs of respiration and circulation, no less than in affections of the central and peripheral nervous system. The unpleasant effects which so often follow the internal and subcutaneous use of opium and of Cannabis Indica are not produced by the cigarette. Their use is recommended (1) in spinal neuroses, chorea, and epilepsy; (2) in neurosis of the sensory nerves, neuralgia of the teeth, branches of the fifth pair, the sciatic nerves; (3) neuroses of the motor nerves, spasm of the throat air passages; (4) affections of the sympathetic nerves, hysteria, and other diseases not attended with plethora, and congestion of the head, heart, or lungs. They are especially useful in asthma, pertussis, spasm of the stomach and intestinal canal, nervous palpitation of the heart, and exert a quieting influence over the whole nervous system.—*Allgemeine Medizinische Zeitung.*

GENERAL CORRESPONDENCE.

ELECTION OF COUNCIL AT THE COLLEGE OF SURGEONS.

LETTER FROM MR. SPENCER WELLS.

[To the Editor of the Medical Times and Gazette.]

SIR,—You have made known to the Profession that I am one of four candidates for the two vacant seats at the Council of the College of Surgeons, and as it is right that the electors should know the general principles which will guide those for whom they vote in their course upon some of the chief questions which affect the constitution and administration of the College, I ask your permission to lay the following statement of my opinions before the Fellows.

You have already alluded very kindly to the part which I took when occupying the post for seven years which you have since filled so much more ably, and your readers have only to refer to past volumes of the *Medical Times and Gazette* to see that many of the reforms in the College which have since been carried out were consistently supported week after week and year after year. I need now, therefore, say little more than that I am still anxious to carry into effect the measures which I supported long ago.

1. I still think that the re-election of retiring Members of Council, as a matter of course, is extremely injurious to the College and to British Surgery, and that re-election should only be a rare and exceptional reward of conspicuous merit.

2. I still endeavour to open the Council to Fellows who practise in the country as freely as to metropolitan Fellows.

3. I have repeatedly expressed my opinion that the charter of the College gives too much power to the Council, and leaves too little to the Fellows. I do not see how this evil can be corrected without a new charter; and I would gladly assist in obtaining such a revision of the charter as would place the government of the College absolutely in the hands of the whole body of the Fellows, providing for quarterly or periodical meetings of the Fellows, when the proceedings of the Council should be made known, and either confirmed, modified, or rejected after a full opportunity for free discussion.

I have no fear that if such meetings were open to the whole College—Fellows and Members—any unwise interference in the administration of College affairs would ensue. On the contrary, they would probably lead to a much closer attachment of all Surgeons to their College, to a more direct interest in its welfare, and to a better and more general knowledge of its laws and government.

4. Year after year I become more and more strongly convinced that the Court of Examiners should consist of Fellows who are not members of the Council, that they should be subject to annual or triennial re-election, and should be remunerated by annual salary, and not according to the number of students examined.

5. The representative of the College in the General Medical Council should be elected by the whole College, not by the Council only. It would probably be a good plan to submit a recommendation by the Council to one of the periodical meetings of Fellows.

6. Pending the consideration of the provisions of a new charter, the proceedings of the Council should be fully made known to the Fellows.

7. In such cases as voting for members of Council, or members of the Court of Examiners, or on any question where a very definite resolution could be submitted to consideration, I think Fellows residing beyond the metropolitan postal district, who desire it, might be allowed to vote by proxy papers. But a more general establishment of vote by proxy would probably be injurious, by encouraging electioneering tactics, and by discouraging open discussion at the meetings of the Fellows.

With regard to my own standing in the College, I may explain that I was elected an honorary Fellow in 1844. When the Fellowship was created by the new charter, the heads of the Army and Navy Medical Departments were requested to send in lists of Medical officers thought to be deserving of the honour of the Fellowship. I was then an Assistant-Surgeon in the Navy, and I believe I was the only Assistant-Surgeon whose name was sent in by Sir William Burnett. Mr. Bransby Cooper told me afterwards that Sir William was asked why he had sent in the name of an Assistant-Surgeon of only three years' standing, and his answer satisfied the ruling powers of the College that I had worked hard and deserved the distinction. I am far from insisting on any right of mere seniority. Mr. Holden, Mr. Erichsen, and Mr. Humphry were all junior Fellows to me; yet I did not come forward as I should have done if I had maintained any such supposed right. I maintain, on the contrary, that the freest possible choice should be accorded to the Fellows, and that any Fellow in actual practice should be eligible for election to the Council. But it is manifestly unjust to ignore seniority altogether, and still more so for the Fellows by examination to oppose me or any other honorary Fellow because we are not also Fellows by examination; the fact being that, having been elected before the examination was instituted, it was quite impossible to present oneself for examination.

In conclusion, Sir, allow me, through your columns, to assure the Fellows that not one of them will be canvassed by me, or by any of my friends, or asked personally or by letter to support me. I have been compelled, by the very objectionable mode of election prescribed by the laws, to obtain the signatures of six Fellows, certifying that I am a fit and proper person to obtain a seat at the Council, and of three other Fellows that I do not practise as an apothecary. This I have done, and I have endeavoured to inform the Fellows what measures they may assist in carrying by supporting me. I may add, without impropriety, that I regard election as their representative by his brother Fellows, as a distinction of which any man ought to be proud; but that will be the beginning and the end of any "canvassing" on my behalf.

I am, &c. T. SPENCER WELLS.

Upper Grosvenor-street, June 28, 1870.

NEW BOOKS, WITH SHORT CRITIQUES.

A Treatise on Diseases of the Eye. By J. SOELBERG WELLS, Professor of Ophthalmology, King's College; Ophthalmic Surgeon, King's College Hospital; and Assistant-Surgeon Royal London Ophthalmic Hospital, Moorfields. Second edition. London: John Churchill and Sons. Pp. 797.

*** It is not often that a book of this size, and especially one dealing with such a speciality as ophthalmology, so soon finds itself in a second edition. Nor is it the less pleasing to the accomplished author to know that very shortly it will make its appearance both in a French and a German dress. The book contains an admirable and, on the whole, succinct account of diseases of the eye. It has been carefully brought abreast of our own time, and now, when again it makes its appearance, we are in a position to renew the recommendation we formerly bestowed on it. The illustrations are sufficiently numerous, and the valuable copies of Liebreich's plates, too little known to the bulk of Practitioners in England, are of great importance from an ophthalmoscopic point of view. There is not much more to be said of a book which such a short time ago we examined at length, beyond adding that the interpolations in the text of new material have been most judiciously made, and that it is in every respect a most reliable authority.

Notes on the Physiology and Pathology of the Nervous System, with reference to Clinical Medicine—Sclerosis of the Brain and Spinal Cord. By MEREDITH CLYMER, M.D., etc. New York: Appleton and Co.

*** Dr. Clymer has here reprinted two capital papers from the *New York Medical Journal*—the one dealing with disseminated sclerosis of the brain and spinal cord, the other with cortical sclerosis of the cord. This condition has been carefully investigated by Charcot, from whom certain illustrations here reproduced are taken. The most important clinical symptoms are palsy with tremor. The accumulated facts here found are of great value.

A Handbook of Phrenology. By C. DONOVAN, Professional Phrenologist, etc. London: Longmans. Pp. 192.

*** There must be people who read these books, otherwise they would hardly find publishers, but it is difficult to understand who they are, or what they read them for. This one seems much like others of its class, only perhaps it contains a few more garbled quotations, including not a few from the illustrious poet Tupper. It is hardly worth while to express an opinion of its merits, but we may say that it appropriately closes with a bundle of testimonials to the merits of Mr. Donovan.

Kreuznach, seine Heilquellen und deren Anwendung. Neu bearbeitet, von Dr. F. Engelmann. Fünfte Auflage: Kreuznach. R. Voigtländer.

Kreuznach, its Mineral Springs and their Uses. New Edition. By Dr. F. Engelmann. Kreuznach: Voigtländer. Pp. 221.

*** The wells of Kreuznach are not so well known in this country as on the Continent, and certainly are not so frequented as they deserve. They are easily accessible, and from their constituents constitute remedies almost unique in character. This little book is intended more perhaps as a guide to lay strangers than to Medical men. Four editions were published during the life of the author, Dr. C. Engelmann. The fifth is now issued by his son. It deals with many questions, with the composition of the waters (they contain chlorides, bromides, and iodides), their action, the diseases for which they are adapted, practical rules to be attended to whether they are used as drink or baths, dietetic rules, &c. From the composition above referred to, it will be seen that the waters of Kreuznach are what we call deobstruent, and are valuable in certain forms of scrofula with enlarged glands, diseases of syphilitic origin, skin diseases, uterine diseases, etc. In these their efficacy is undoubted, but although the waters contain a little iron, they are of the nature of spoliative remedies, and should not be continued for too protracted a period.

OBITUARY.

JAMES SYME, ESQ., F.R.S.E., F.R.C.S., etc.

It is with deep regret that we announce the death of the great Surgeon of Edinburgh, James Syme. Although his alarming attack of illness in April, 1869, led to the resignation of his public appointments, yet he recovered in a great degree so quickly, and so continued to improve in health and strength that it was hoped that, if not able to return fully to the practice of his Profession, he would be at least spared to us in a fairly useful and enjoyable state of health for some years. These hopes have, however, been doomed to disappointment. In May this year Mr. Syme had another and more severe attack of loss of power, from which he never rallied, but gradually sank, and died on the morning of June 26.

He adds one more to the long list of illustrious victims to over brain work, and the regret with which we record his death will be shared wherever his fame has reached and his pupils have practised—that is, throughout the civilised world.

We cannot pretend at present to give anything like a full or adequate notice of his life and labours, but we cannot record his death without giving our readers some sketch of his career.

Born in 1799, James Syme was educated at that school so fertile in great men, the High School of Edinburgh, and while still a scholar there he displayed a special fondness and practical aptitude for chemical study and experiment, and when only seventeen succeeded in discovering the way of effecting some of those alterations in the physical properties of india-rubber that make it available for many of the purposes for which it is now so largely employed, especially by the well-known firm of Mackintosh and Co. Botany, natural history, and chemistry, James Syme studied before beginning his Professional education, upon which he entered in 1817, by becoming a pupil of Dr. Barclay, then a popular teacher of anatomy in the University of Edinburgh. In the following spring we believe he entered as a pupil at the dissecting rooms established by his distant cousin, Mr. Liston, and in the winter of the same year —1818—became demonstrator under Mr. Liston when that gentleman began to lecture on anatomy. In 1820 Mr. Syme was Medical superintendent of the Fever Hospital, and had a very narrow escape with his life from a severe attack of the epidemic. In the following year he was appointed House-Surgeon at the Royal Infirmary, and when he delivered the address in Surgery at the meeting of the British Medical Association in Edinburgh, in 1865, he gave some illustrations of the remarkable difference "between the old and the present practice, in the almost entire disuse of bleeding instead of its nearly constant employment" in the treatment of inflammation and its consequences. "When I was one of the dressers at the Royal Infirmary," he remarked, "two of us went every evening at a stated hour to bleed the patients, whose names were entered in a book, with the respective quantities due from each. On one occasion, I recollect of sixty-five ounces taken at once, and followed by thirty-five next day. At present few Surgeons carry a lancet, and still fewer ever employ it." And "at the Fever Hospital," he said, "I bled men, women, and children, who were brown, emaciated, and reduced to the utmost degree of weakness. Afterwards, when House-Surgeon to the Infirmary, I had under my care a boy who suffered from compound fracture of the leg, which gave rise to profuse suppuration; and about three weeks after the injury, seeing that his strength was much exhausted, I ordered him some porter and a beefsteak. But, next day, the Surgeon, who was one of the most largely employed Medical men in Edinburgh, disapproved of this, which, he said, would feed the disease, and directed me to take fourteen ounces of blood from the arm. I obeyed with great reluctance, and need hardly add that before the end of forty-eight hours the boy was dead." "Now," he added, "I would ask could any man at present think of bleeding in such cases as these? and if not, then I say that, whatever change there may have been in the type of disease there certainly has been a change in the practice of the Profession." He was not a believer in the change-of-type theory.

In 1821 he became a Member of the Royal College of Surgeons of England, and in 1823 a Fellow of the Edinburgh College, and in the same year began to give lectures, which were very successful, on anatomy, and also attracted notice by performing some brilliant operations, one of which was an amputation at the hip-joint. Throughout these seven years Mr. Liston and he had been close friends and allies, but now, from some causes into which we cannot enter, a quarrel took place, which ended in total estrangement for several years. This rupture threw many and serious difficulties and obstacles in Mr. Syme's way; but, nothing discouraged, he entered into a sort of partnership with Dr. Mackintosh, who then lectured on midwifery and on the practice of Medicine. They established a theatre, dissecting-rooms, and museums, and Mr. Syme undertook the lectures on anatomy and on Surgery in 1825. In a short time, however, the anatomical department was made over to the late Dr. Cullen. For in those days there were serious difficulties in the way of teachers of anatomy. Men of science were compelled to enter into partnership with the resurrectionists; and Syme was obliged to go to Dublin to pursue some anatomical researches which he could not follow out at that time in Edinburgh, owing to the absolute deficiency of subjects. He alluded to this during a visit which he made to Dublin in 1863. "Every facility," he said, "was afforded me by my respected friend the late Mr. Cusack, and I remained for some time working in the school with which he was then connected. I was filled with admiration for the Surgeons of Dublin, and I desired to follow the example I had seen;" and on his return to Edinburgh he devoted himself to the teaching of Surgery, and so highly were his lectures appreciated that, it has been stated, in 1829 he entered as many as 250 pupils, and kept up this number through the next two years, though Liston, Lizars, Turner, and Fergusson were rival lecturers on the same subject.

Mr. Syme naturally was by this time anxious to get on the Surgical staff of the Royal Infirmary, but there seemed to be little or no hope of this, for Liston was already on the staff and some of the managers of the Institution considered that the election of Mr. Syme would imperil its peaceful progress. Excluded thus from the Infirmary Syme took Minto House, converted it into an Hospital, and applied to the College of Surgeons to recognise it for Hospital attendance. This the College refused, but agreed to recognise courses of lectures on Clinical Surgery if Mr. Syme liked to establish them, it being stipulated at the same time that the pupils should be limited to forty in number, and that the fees should be the same as those charged by Mr. Russell, the Professor of Clinical Surgery, for his courses of lectures. Mr. Syme accepted these terms, and in the next four years delivered eight courses of lectures to always the full complement of pupils, and thus laid the foundation of his brilliant reputation as a Clinical teacher.

In 1831 the Government established a Chair of Systematic Surgery in the University of Edinburgh and appointed to it Mr. Turner, who had succeeded Dr. Thompson as Professor of Surgery to the College of Surgeons, and Syme applied for the vacated College professorship. An attempt was, however, made to abolish this latter chair—an effort which Mr. Syme's friends resisted, striving, at the same time, to get him appointed to it. They succeeded in saving the chair but Mr. Syme lost the election by one vote. In the next year Mr. Russell, then 83 years of age, obtained the permission of the Crown to resign the Chair of Clinical Surgery, on condition that his successor agreed to pay him an annuity. Mr. Syme applied for the appointment, and obtained it in March, 1833, through the recommendation of Lord Jeffrey, then Lord Advocate of Scotland. This gave Syme at once a prominent position and status, and led to his obtaining admission to the wards of the Royal

Infirmary by invitation of the managers, as the students were obliged to attend his lectures as a qualification for graduation.

Mr. Liston's term of service on the ordinary staff of the Infirmary was then expiring, and he had hoped to obtain the Professorship of Clinical Surgery in order to keep up his official connexion with the Hospital. Disappointed in this, his attention was turned to London, and he moved to that Metropolis in 1834, leaving the Edinburgh field more open to Professor Syme. And here we may state that a few years later, in 1840, we believe, Mr. Liston, then Professor of Clinical Surgery in the University of London, wrote to Professor Syme a letter of reconciliation, and expressed a wish that "old sores might not be merely plastered up, but be soundly cicatrised." The Edinburgh Professor readily met the offer, and, excepting one short interval, the two remained firm friends till Liston's death in 1847.

In 1831 Mr. Syme published a "Treatise on Excision of Diseased Joints;" he maintained that the operation, which, he pointed out, was required by the existence of caries of the bone, ought to be confined to the shoulder and elbow-joints, and subsequently asserted that it should be performed on the latter joint only. His first operation for excision of the elbow was in 1827, at which time it had never been performed on the living subject in Great Britain, and when he published his Treatise he had operated fourteen times.

In 1832 he published his "Principles of Surgery," a work highly appreciated and greatly needed, as at that time the "Systems" of Bell, and Allen, and the "First Lines" of Samuel Cooper, were the only elementary books of reference for Surgical students.

In 1838 appeared Mr. Syme's treatise on "Diseases of the Rectum," a work which largely helped to rescue these disorders from the hands of the quacks and advertising Practitioners, and in which especially the treatment and pathology of internal hæmorrhoids, fistula in ano, and fissure of the anus, were greatly advanced and improved.

In 1847, the Professor published a very valuable and comprehensive volume entitled, "Contributions to the Pathology and Practice of Surgery," and consisting chiefly of selections from cases, observations, and Surgical reports previously published elsewhere.

It was in November this year, 1847, that Liston died, and soon after Professor Syme was pressingly invited to take his place in University College. The doing this entailed great sacrifices, for Mr. Syme held a high and most advantageous position in Edinburgh, and his chair there was worth £600 a year, with a salary of £100 a year from the Crown, while the annual stipend offered by the University College was only £150; but the invitation was highly flattering, while the field of practice offered by the English capital was very tempting. Mr. Syme himself has said, "of all the inducements which weighed with me, certainly the most cogent was a persuasion that, in the event of going to London, I should have it in my power to introduce a method of instruction, which, though not new in name, had never, so far as I could learn, been conducted in the way found so useful in Edinburgh, and which, I felt assured, if generally adopted, must produce the most important effects in the improvement of Professional education. I explained, in writing, to the negotiators in London that, having always advised Mr. Liston against exhausting his energies by undertaking the drudgery of systematic or elementary lectures, I felt, on my own account, equally averse to doing so, and must be distinctly exempted from any responsibility in conducting the systematic course of Surgery." He expected that, considering the sacrifices he had to make, he would be cordially received and warmly supported, and, confident in his own talents, he ended by accepting the invitation, and, in February, 1848, moved to London. He has himself described his first visit to his lecture theatre, which, he says, "strongly suggested the idea of a bear-pit in the Zoological Gardens;" it contained ranges of concentric rails, between which, without seats, the students were expected to keep. This rude condition Mr. Syme could not tolerate, and "such seats as the narrow spaces permitted were provided;" but, on entering the theatre to deliver his first lecture, he was not a little dismayed to find the students, disdainful of the new seats, "perched upon the rails in all sorts of grotesque attitudes." "I was a little perplexed," he says, "from not wishing that my first words should partake of censure, but at the same time, being resolved not—or rather unable—to address as gentlemen seriously engaged in Professional study an audience so very peculiarly situated, I stated that an essential to our further progress must be—descending from their elevation, and taking quiet possession of the seats provided for them. A ready compliance was yielded to this request, and from that time forwards the class I had the pleasure and honour of addressing was never in my experience surpassed for zeal, intelligence, and decorum." Mr. Syme's relations with the students were throughout such as did honour to both parties, and must have been highly gratifying to him. Shortly after his arrival in London he was waited on by a deputation of students, who presented him with a congratulatory address bearing nearly 200 signatures, and on his resigning the chair afterwards a deputation was sent to him to inquire whether a requisition signed by every student attending the College would induce him to remain.

We have not to write the history of University College, and therefore, in relation to Mr. Syme's very short connexion with that institution, we shall only say further that very soon after he was established in London the Council of the College intimated to him that the school required his services as Professor of Systematic, as well as of Clinical, Surgery. The Professor, true to the written statement we have already quoted, felt that the acceptance of this proposal would condemn him to a life of incessant toil and drudgery, and, in May, 1848, he resigned his appointment. The question then arose, should he, under these altered circumstances of position, remain in London, or should he return to the Northern capital? His former chair there was still unoccupied, and no new Practitioner had entered the field of pure Surgical practice; while Mr. Syme had not been pleased or satisfied by what he had seen of Medical life in London. He thought that "to a Professional man—and the more so in proportion to his success—the great metropolis affords a dreary field for exertion, admitting few gleams of domestic or social enjoyment, and hardly yielding any fruit but money, which, when thus gathered as the sole object of ambition, is too apt to harden the heart and chill the affections;" and we know from his own lips that he felt himself in a different social position in London to that which he had enjoyed in the modern Athens, where he had received on equal terms, and been received by, the aristocracy of birth as well as of intellect. It may perhaps be thought that he was impatient in expecting at once the full recognition of his talents and worth, but, at any rate, he sighed after his first love, and in July, 1848, he returned to Edinburgh, and resumed his old position there, and that without any repining or vain longing after the fleshpots of London. "It was," he has written, "with no feelings of regret that I bade adieu to London and returned to Edinburgh, where the increasing kindness of my friends made me every day more thankful for the decision which restored me to their society"—a decision requiring and implying great moral courage, but amply justified. From that time till his resignation of office last year, his fame as a teacher and as a Surgeon continued to rise and spread till he was generally recognised as one of the greatest living authorities in his subject.

In 1849 he published his "Treatise on Stricture of the Urethra, and Fistula in Perineo," in which he proposed to treat certain kinds and conditions of stricture by incision on a grooved director passed through the contracted part of the canal. The operation has met with vehement and persistent opposition, but maintains its ground with some Surgeons as applicable in a limited number of special cases. In 1864 his "Observations in Clinical Surgery" was published, as also an account of a successful case of excision of the scapula.

We have mentioned his largest and most important works, but of his *opera minora* we cannot even affect to give a list, but it may be noted that, besides his Professional works and memoirs, he wrote more than one "Letter" on Medical reform, a subject in which he took a great and active interest. In 1854 he published a letter on the subject to Lord Palmerston, in which he opposed the Bills of Mr. Headlam and Lord Elcho, and maintained that "the sole object of Medical legislation should be to regulate the terms of that licence without which no one ought to be admitted to the priveleges of the Medical Profession—these being made the same throughout every part of Her Majesty's dominions." This work, he considered, should be confided to a body of men possessing the necessary information, and armed with sufficient powers to carry their resolutions into effect. And to form this regulating council, he suggested that "each of the ten universities, and each of the nine Medical corporations, together with the Association of Provincial Practitioners in England, should elect a representative. To these twenty let the Government add ten, so as to form a body of thirty, which might be named the General Council; and then let it elect ten of its members to be the Executive Council, of which the duty would be to determine the qualifications requisite for general practice, to ascertain what univer-

sities and corporations were willing to make this the minimum of their curriculum of study, to insure by visitation and otherwise that their regulations were duly observed, and to publish a register of qualified Practitioners." It will be seen that Syme here recommended much of what has since been and is likely to be carried out. When the General Medical Council was appointed, Professor Syme took his seat in it as the representative of the united Universities of Edinburgh and Aberdeen, and for ten years he remained an active and valuable member of it.

Great as Mr. Syme was as a Surgeon, in the largest sense of the term, no little part of his fame rests upon his skill and daring as an operator. He was the first Surgeon in Great Britain who excised the superior maxillary bone. He was also the first to perform subcutaneous division of the sterno-mastoid muscle for wry-neck, and to remove successfully a tumour of the clavicle by disarticulating this bone from the sternum. He twice at least performed amputation at the shoulder-joint successfully for aneurism, and his mode of amputating at the ankle-joint is one of the established operations in Surgery.

In March, 1837, he read a paper before the Royal Society of Edinburgh, in which he proved by a series of ingenious experiments that bone is formed from the periosteum. Alluding to this in his address in Surgery, to which we have already referred, he says—"My probationary essay on necrosis was written with the view of showing that the periosteum had nothing to do with ossification; but ten years afterwards, I was led by the observation of some facts in practice to take an entirely different view, and to perform experiments which completely removed any doubt that could have remained on the subject. By detaching the periosteum of dogs, and either removing the denuded bone, or surrounding it with tinfoil, I obtained results that proved beyond all question the periosteum to be the great agent in osseous reproduction. Of late years much attention has been devoted to this subject in France, especially by M. Ollier, who came to Edinburgh with his preparations of rabbit bones, and was not a little surprised to find them anticipated by my own from dogs, which had been made and published twenty years before."

During the Professor's visit to Dublin in 1863, he was entertained at a banquet by several of the leading members of the Profession in that city, and we may quote some of the expressions used by Dr. Adams, Surgeon-in-Ordinary to the Queen in Ireland, in proposing his guest's health, to show the eminent position Mr. Syme held in the opinion of those who had themselves achieved eminence. After speaking of him as one whose reputation was not only European, but world-wide, and of his success and fame as a teacher, Dr. Adams said, "His large work, in 1841, entitled 'Principles of Surgery,' has been in our libraries for many years, and often consulted by us, and in his recent work, 'Observations in Clinical Surgery,' he has given graphic accounts of many important Surgical cases and operations, some of which, as it appears to me, not only do credit to himself and his country, but also to the age we live in. I allude especially to his operations in desperate cases of large axillary and carotid aneurisms, in which no other resource appearing available, he had boldly recourse to the old operation for aneurism; he ventured to make incisions into the large aneurismal sacs, and dexterously succeeded in securing both ends of the large arterial trunks, rescuing the patients from impending death, and curing the disease." To the operations there mentioned we may add a like operation in a case of iliac aneurism, and operations for the excision of the tongue.

He was indisputably in the front rank of British Surgeons. Whether we regard his natural abilities, his acquirements, or his manual skill, he is entitled to the proud epithet, *nulli secundus*. He had great power in diagnosis, was singularly fertile in his resources, and when an operation was required performed it with the utmost skill and coolness. His name is associated, as will be seen above, with some of the most remarkable operations on record. He was clear and forcible rather than eloquent as a lecturer, and eminently practical, terse and plain as a writer, somewhat tame in debate, except when aroused by any personal matter. He could then be severe and sarcastic. But he often expressed himself in terms that were the result of the impulse of the moment, and had no permanent effects upon him. He possessed great courage, and was a thoroughly manly opponent. If he hit hard, he always hit fair. He was involved in many controversies, but he always bore the reputation of being an honourable and brave opponent. He had great self-confidence, and was sensible enough to appreciate his own merits. He, in fact, had none of that silly "mock modesty" which some men, even amongst the greatest, have assumed. He was hospitable, generous, and charitable. His old pupils, scattered as they were all over the world, always, on their return to Edinburgh, were delighted to place themselves once more on his benches, and listen to the wisdom which he had accumulated by his long and unrivalled experience. To them, as to all, his hospitality was of a generous character, and few *symposia* were more delightful than those at his *Tusculum* at Millbank. We well remember when, a few years ago, he presided at a dinner of the Edinburgh University Club held in the St. James's Hall, in this city, that he received almost an ovation from the many former pupils who gathered round him on that occasion. Even his singularly undemonstrative nature showed evidence of how deeply the depths of his heart were stirred by this gratifying display. As a botanist and florist, he had few rivals, and his gardens, on which he expended vast sums, were visited by amateurs from all parts of the country. He was for some six-and-thirty years Regius Professor of Clinical Surgery in the University of Edinburgh, and for several years Surgeon-in-Ordinary to Her Majesty in Scotland. He possessed no titular distinctions, but from various parts of the world he had received honours amply testifying to the general appreciation of his talents and achievements; thus he had received the honorary degrees of D.C.L. of Oxford and of M.D. of the Universities of Dublin and Bonn, and he was honorary Fellow of the Royal Colleges of Surgeons of England and Ireland. In person Mr. Syme was of the middle height, of a slight active build. His head was fine, and his eyes expressive of intellectual power. The lower part of his face was somewhat coarse, his mouth being large and prominent and his chin decisive. In conversation he was quiet, humorous, and generally good-natured, and after you had been in his company for a short time he won your regard and esteem. Of his infirmities of temper, his proneness to jealousy, and his prejudices—strong as the prejudices of all strong men—this is not the place or the time to speak. He was a good man and a great Surgeon, and in him the University of Edinburgh has lost one of the most brilliant and eminent of her many eminent Surgical sons.

DAVID MACLACHLAN, F.R.C.P., M.D.,

Died a few days since at Ventnor, Isle of Wight. He was born at Glasgow, in 1807. His parents were natives of Argyleshire, and he resided with them at Oban till 1815, when the family removed to Glasgow. He was educated at the Glasgow Grammar School and University. In the session 1826-27, he carried off two prizes in the class of practical Medicine, one at the University, and one at Portland School of Medicine, under the celebrated Mackenzie, the oculist, and in the same year was his clinical clerk. He took the diploma of the Royal College of Surgeons, Edinburgh, in 1827, and was appointed Hospital assistant to the department in August of the same year. In December he volunteered for service on the west coast of Africa. In the following March (1828) he was promoted to an Assistant-Surgeoncy, and appointed to the 79th Highlanders, and returned from western Africa to join them. He served with them till May, 1840, when he was appointed Physician and Surgeon to the Royal Hospital, Chelsea, in succession to Dr. Somerville, the husband of the celebrated authoress. Dr. Maclachlan took his degree at Glasgow, in 1830, became F.R.C.P. London in 1859. He was a Fellow of the Royal Medical and Chirurgical Society, and was a member of the council of that body for a period of two years. In 1863, owing to failing health, he was obliged to retire on half-pay, and had up to the time of his death resided at Ventnor, in the Isle of Wight; and there, so far as his health permitted, practised as a Physician. He was married in 1834, and had two sons and a daughter. His eldest son died before Sebastopol whilst serving as Lieutenant R.A. His surviving son is now serving in India as Lieutenant R.A. His wife died a few months since. His daughter survives him.

His contributions to the literature of Medicine consisted of "A Practical Treatise on the Diseases and Infirmities of Advanced Life," "On Scrofulous Abscess of the Anterior Mediastinum," which appeared in the *Med. Chir. Trans.* in 1850, and of several papers and cases which were published in this journal. Dr. Maclachlan, though not a man of brilliant talents, was an exceedingly well-informed and able Physician. His writings are thoroughly practical and well composed. He was somewhat of a retiring disposition, but he occasionally took part in the discussions at the Medico-Chirurgical Society.

MEDICAL NEWS.

QUEEN'S UNIVERSITY IN IRELAND.—At a public meeting of the University, held at Dublin Castle on the 22nd ult., the following gentlemen received the degree of Doctor in Medicine:—

Browne, Samuel Hazlett, Q.C. Belfast.
Doyle, Patrick, Q.C., Belfast.
Edge, John Dallas, Q.C., Galway.
French, John Gay, Q.C., Galway.
Frier, William, Q.C., Belfast.
Gillman, Thomas Henry, Q.C., Cork.
Haines, Charles Henry, Q.C., Cork.
Johnson, Samuel, Q.C., Galway.
M'Cracken, John A., Q.C., Belfast.
M'Craith, Jeremiah, Q.C., Cork.
M'Donnell, Martin A., Q.C., Galway.
Maunsell, John, Q.C., Belfast.
O'Neill, John, Q.C., Cork.
Rathborne, Charles Atkinson, Q.C., Galway.
Shaw, James, Q.C., Belfast.

On the same occasion the degree of Master in Surgery was conferred on—

Browne, Samuel Hazlette, Q.C., Belfast.
French, John Gay, Q.C., Galway.
Friar, William, Q.C., Belfast.
Gilman, Thomas H., Q.C., Cork.
Haines, Charles H., Q.C., Cork.
Hunter, Robert Lindsay, M.D., Q.C., Belfast.
Johnston, Samuel, Q.C., Galway.
Lumsden, Thos., M.D., Q.C., Cork.
M'Cracken, John Alexander, Q.C. Belfast.
M'Craith, Jeremiah, Q.C., Cork.
Madden, Henry Murray, M.D., Q.C., Galway.
O'Neill, John, Q.C., Cork.
Rathborne, Charles Atkinson, Q.C., Galway.
Shaw, James, Q.C., Belfast.

The following gentlemen have passed the first University Examination in Medicine:—

Armstrong, George W. F., Q.C., Cork.
Bailey, James Battersby, Q.C., Belfast.
Barry, Richard John, Q.C., Cork.
Barry, Robert, Q.C., Cork.
Bernal, Robert A., Q.C.,—
Black, Moses, Q.C., Belfast.
Boyd, Samuel B., Q.C., Belfast.
Browne, Samuel, Q.C., Belfast.
Browne, William James, Q.C., Belfast.
Burke, William Cuppage, Q.C., Belfast.
Colahan, Nicholas Whistler, Q.C., Galway.
Coulter, William, Q.C., Belfast.
Dawson, James, Q.C., Cork.
Drury, Robert, Q.C., Galway.
Fitzgerald, Ed. Maxwell, Q.C., Cork and Galway.
Fleming, William, Q.C., Galway.
Flood, Ed. Francis, Q.C., Galway.
Fogerty, Henry Archibald, Q.C., Cork.
Forsythe, Anderson, B.A., Q.C., Galway.
Fury, James, Q.C., Belfast.
Gillespie, Michael J., B.A., Q.C., Galway.
Gilmore, Alfred John, Q.C., Belfast.
Glissan, Benjamin J., Q.C., Galway.
Graham, James, Q.C., Belfast.
Greenway, Alfred G., Q.C., Galway.
Hannay, Robert S., Q.C., Belfast.
Harbinson, Alexander, Q.C., Belfast.
Hegarty, John, Q.C., Galway.
Hickman, William, Q.C., Galway.
Hurley, James, Q.C., Cork.
Johnston, David, Q.C., Belfast.
Johnston, George, Q.C., Belfast.
Kerr, James King, Q.C., Belfast.
Kerr, James, Q.C., Belfast.
Knox, John, Q.C., Belfast.
Little, Charles, Q.C., Belfast.
M'Bride, Robert, Q.C., Belfast.
M'Carthy, James, Q.C., Cork.
M'Carthy, John P., Q.C., Cork.
M'Harry, Hugh, Q.C., Belfast.
M'Millan, Hugh, Q.C., Belfast.
M'Nally, Christopher John, Q.C., Galway.
Magill, James B. A., Q.C., Cork.
Malcamson, John Andrew, Q.C., Belfast.
Mark, Joseph, Q.C., Belfast.
Murphy, Jeremiah E., Q.C., Cork.
Nicholls, John William, Q.C., Galway.
O'Reilly, Walter W. J., Q.C., Belfast.
Plowman, Charles M., Q.C., Cork.
Rees, Phillips Sutherland, Q.C., Belfast.
Ring, James, Q.C., Cork.
Rosten, William Martin, Q.C., Galway.
Ryan, John Nashville, Q.C., Belfast.
Scott, John Moore J., Q.C., Belfast.
Sloan, Ebenezer E., Q.C., Belfast.
Wallace, Thomas, Q.C., Belfast.
Wylie, Alexander, Q.C., Belfast.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, June 23, 1870:—

Evans, Alfred Henry, Nottingham.
Nicholls, Howard Hill John, Kennington-park.
Noott, William Mathias, Cardigan, South Wales.
Pratt, Thomas Gray, Clifton-road, N.W.
Tuck, Frank Sextus, Cresswell-park, Lee, S.E.

At the competitive examination held on June 15 for the prizes in botany, annually given to Medical students by the Society of Apothecaries, the successful candidates were—

First: Bomford, Gerald, of King's College, a gold medal.
Second: Duncan, Andrew, of King's College, a silver medal and a book.

MILITARY APPOINTMENTS.

Surgeon William Sylvester Roche has been placed on the retired list of his rank on the 8th inst., in accordance with the provisions of her Majesty's Order in Council of February 22, 1870.

13TH FOOT.—Staff Surgeon Chamney Graves Irwin, M.B., to be Surgeon, *vice* Charles Christopher Piper, appointed to the Staff.

67TH FOOT.—Surgeon Jones Lamprey, M.B., having completed 20 years' full-pay service, to be Surgeon-Major, under the provisions of the Royal Warrant of April 1, 1867.

MEDICAL DEPARTMENT.—Surgeon Charles Christopher Piper, from 13th Foot, to be Staff Surgeon, *vice* Chamney Graves Irwin, M.B., appointed to the 13th Foot; Assistant-Surgeon William Francis Burnett, from the 77th Foot, to be Staff Assistant-Surgeon, *vice* Richard Beresford Carson, M.B., deceased; Staff Surgeon Henry Trevan, M.D., has been placed on the retired list of his rank from June 27.

BIRTHS.

CRESSWELL.—On June 26, at South Norwood, Surrey, the wife of Alfred Cresswell, M.D., F.R.C.S.E., of a son.

RICHARDSON.—On June 27, at Cheswick East House, near Beal, Northumberland, the wife of Henry Richardson, M.D., Staff Surgeon R.N., of a son.

SWALES.—On June 21, at Alexandra-terrace, Sheerness, the wife of Peter Swales, Surgeon, of a son.

WATSON.—On June 27, at High-road, Tottenham, the wife of W. Tyndale Watson, M.D., of a son.

MARRIAGES.

ANDERSON—TURNER.—On June 28, at St. Peter's Church, Everton, Liverpool, by the Rev. S. B. Sutton, B.A., Dr. Colles Litchfield Anderson, son of the late Lieut.-Col. A. C. Anderson, Fort Major Edinburgh Castle, to Sarah Matilda, second daughter of the late Charles Turner, Esq., of the Admiralty, Somerset House.

BOND—HAYES.—On June 28, at Christ Church, Lancaster Gate, Thomas Bond, F.R.C.S., B.S. Lond., 50, Parliament-street, Westminster, to Rosa Sophia, third daughter of the late Mr. Justice Hayes.

DEACON—FREEMAN.—On June 22, at the parish church, Clapham, Henry Pelham Deacon, M.R.C.S., of Ottery St. Mary, Devonshire, younger son of Henry Hodgetts Deacon, Esq., Rectory-grove, Clapham, to Lucretia Weston, second daughter of Joseph Freeman, Esq., of North House, Clapham.

PATERSON—WRIGHT.—On June 23, at St. Peter's Church, Cambois, Northumberland, James Paterson, M.D., Surgeon R.N., to Frances, only surviving daughter of Joseph Wright, Aberdeen.

PAUL—HALKSWORTH.—On June 28, at the parish church, Barnes, Surrey, James, eldest son of James Paul, M.D., of Lonsdale-villas, to Angelique, only surviving child of W. Halksworth, Esq., of the Colonial Office, and of Park Lodge, Barnes, Surrey.

POCOCK—BENNETT.—On June 29, at St. Stephen's, Clapham-park, Edward William Pocock, M.R.C.S.E., eldest son of Dr. Pocock, of Brixton, to Ida Willoughway, eldest daughter of George Bennett, Esq., of "Strelna," Clapham-park. No cards.

SHAW—SHEFFIELD.—On June 21, at Holy Trinity Church, Bedford, Captain Hugh Shaw, V.C., 18th Royal Irish Regiment, son of James Shaw, Esq., F.R.C.S., late Principal Inspector-General Medical Department, Madras, to Emily Grace, youngest daughter of the late William Sheffield, Esq., H.E.I.C., Madras Civil Service.

TAYLER—HICKS.—On June 25, at St. John's Church, Upper Lewisham-road, Francis Thomas Tayler, B.A., M.B., to Mary Ann, eldest daughter of Edward Samuel Hicks, Esq., of Rupert-villa, Upper Lewisham-road, New-cross.

DEATHS.

BETTS, ARTHUR RAYMOND, eldest son of George Harvey Betts, M.D., late of St. John's-park, Upper Holloway, at 1, Berkeley-street, Cheltenham, on June 22, aged 22.

CLARK, Sir JAMES, Bart., K.C.B., M.D., F.R.S., Physician in Ordinary to the Queen, at Bagshot-park, Surrey, on June 29.

FRANZ, JOHN CHRISTOPHER AUGUSTUS, M.D., etc., at 67, Oxford-terrace, Hyde-park, on June 28, aged 63.

HAY, JOHN, M.R.C.S., only son of the late Lieutenant-Colonel Hay, H.E.I.C.S., at Llwynon, Machynlleth, on June 19, in the 33rd year of his age.

HOSKINS, HENRY ROWLAND, M.R.C.S., at 43, De Beauvoir-road, N., on June 28, aged 43.

HUNTER, ADAM, M.D., at 18, Abercromby-place, Edinburgh, on June 24.

MEIKLEHAM, JULIA, relict of the late William Meikleham, M.D., of La Pique, Trinidad, at Liverpool, on June 12.

SYME, JAMES, late Professor of Clinical Surgery in the University of Edinburgh, and Surgeon to the Queen in Scotland, at Millbank, near Edinburgh, on June 26.

VACANCIES.

In the following list the nature of the office vacant, the qualification required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to the Medical Committee on or before the 21st inst. Election on the 25th.

BIRMINGHAM BOROUGH LUNATIC ASYLUM.—Assistant Medical Officer; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Clerk, at the Asylum, on or before July 14.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN-ROAD, W.C.—Assistant-Surgeon; must be F. or M.R.C.S., not practising midwifery or pharmacy. Applications and testimonials to the Secretary on or before the 14th inst.

CHARING-CROSS HOSPITAL, WEST STRAND.—Assistant-Surgeon; must be F.R.C.S.E., and reside within three miles of the Hospital. Applications and testimonials to the Secretary, on or before July 12.

CHONTALES GOLD AND SILVER MINING COMPANY (LIMITED).—Surgeon, to reside on the Company's mines in Nicaragua, Central America; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. G. Voakes, 185, Gresham House, Old Broad-street, E.C.

EAST ASHFORD UNION.—Medical Officer for the Fifth District; candidates must be duly qualified and registered. Applications and testimonials to Mr. W. Whitfield, Ashford, Kent, on or before July 4.

HOSPITAL FOR SICK CHILDREN.—Assistant-Physician; must be F. or M.R.C.P.L. Applications and testimonials to the Secretary, at the Hospital, 49, Great Ormond-street, on or before July 5. An Assistant-Surgeon is also required; must be F. or M.R.C.S.E.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Surgeon; must be F. or M.R.C.S.E. Applications and testimonials to the Secretary on or before the 9th inst.

LANCASTER UNION.—Medical Officer for the Southern District; candidates must be duly qualified and registered. Applications and testimonials to J. Grant, Esq., Clerk, Lancaster, on or before the 6th inst.

LEEDS PUBLIC DISPENSARY.—Assistant Resident Medical Officer; must have, at least, one legal qualification. Applications and testimonials to Mr. C. J. Wright, 2, Park-square, Leeds, on or before July 6.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—Demonstrator of Anatomy. Applications and testimonials to the Registrar on or before July 9.

MALE LOCK HOSPITAL.—House-Surgeon. Applications and testimonials to the Secretary, 91, Dean-street, Soho, on or before July 15.

NORTHAMPTON GENERAL INFIRMARY.—House-Surgeon's Assistant. Applications and testimonials to the Secretary, from whom further particulars may be obtained, on or before July 9.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—Junior House-Surgeon; must be duly qualified and unmarried. Applications and testimonials to the Secretary on or before July 6. The duties to commence on August 12.

ROTHERHAM DISPENSARY.—Resident House-Surgeon; must have both Medical and Surgical qualifications, and be unmarried. Applications and testimonials to the Treasurer on or before July 4. Election on the 13th.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, ST. GEORGE'S-CIRCUS, S.E.—Clinical Assistant; must have some qualification. Applications and testimonials to the Secretary on or before July 4.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—Medical Officer to attend patients at their homes. Candidates must be registered and have both Medical and Surgical qualifications. Applications and testimonials to Mr. John Barber, 41, John Dalton-street, Manchester, on or before the 15th inst.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before July 2. Election on the 19th.

STAFFORD COUNTY LUNATIC ASYLUM.—Assistant Medical Officer; must be M.R.C.S. and L.S.A. Applications and testimonials to Dr. Bower, Superintendent.

UNIVERSITY COLLEGE.—Professorship of Practical Physiology. Applications, etc., to the Secretary on or before July 6.

WORCESTER GENERAL INFIRMARY.—House-Surgeon's Assistant and Dispenser; must be legally qualified. Applications and testimonials to the Secretary on or before July 14, at the offices, 50, Foregate-street.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Dewsbury Union.—The Liversedge District is vacant; area 1531; population 6069; salary £18 per annum; and the Workhouse, salary £40 per annum.

Westhampnett Union.—Mr. F. J. Freeland has resigned the Manhood District; area 17,455; population 3415; salary £100 per annum.

APPOINTMENTS.

Fulham Union.—Edward C. Barnes, M.R.C.S.E., L.S.A., to the Workhouse.

Thornbury Union.—Edward M. Grace, M.R.C.S. Eng., L.S.A. Lond., L.R.C.P. Edin., to the Almondsbury District.

Welwyn Union.—Henry K. King, M.B., C.M., M.R.C.S.E., L.S.A., to the Union and Workhouse.

Winchcomb Union.—Wm. Cox, M.R.C.S. Eng., L.S.A., to the Hill District and the Workhouse.

THE Countess of Dudley is to lay the first stone of the new Infirmary at Kidderminster, on Tuesday next.

THE Earl of Derby has consented to lay the foundation stone of the new Hospital at Bootle in the last week in August.

SIXTY fever patients were admitted to the Liverpool Workhouse Fever Hospital during four days in last week.

VACCINATION.—During the year 1868-69, 524,143 persons were successfully vaccinated by public vaccinators in England and Wales.

THE following statistics are from a return furnished to the House of Commons in pursuance of a resolution of the House of May 24, 1870, and in conformity with a request from the Executive Committee of the General Council of Medical Education and Registration of the United Kingdom:—Return of diplomas and licences granted by the Royal College of Surgeons in the years 1865 to 1869, both years inclusive, viz.:—

	Diploma of Fellow. By Exam.	By Electn.	Diploma of Member.	Licence in Midwifery.	Totals.
1865	23	22	364	45	454
1866	17	14	337	42	410
1867	24	8	353	37	422
1868	31	13	341	26	411
1869	35	10	257	17	319
Totals, 5 years	130	67	1652	167	2016

The following are the answers returned to paragraphs 4 and 5 of the resolutions of the House of Commons, viz.:—Paragraph 4.—The number of years or months during which the candidate is required to have been engaged in the practical work of a Medical or Surgical Hospital as dresser, clinical clerk, or pupil, having the actual charge of patients under the Medical or Surgical officer of the institution, stating the dates at which such practical Hospital work was declared to be a requisite qualification for a candidate for licence to practise. *Diploma of Fellow:* Six months' dressership, by regulation in force since the institution, in 1844, of the Fellowship by examination. *Diploma of Member and Licence in Midwifery:* Six months' dressership, by regulation in force since October 1, 1863. Paragraph 5.—Is the candidate for any, and if for any, for which of the qualifications, to demonstrate at the bedside of a patient that he has acquired a practical acquaintance with disease? giving the date at which such rule was adopted, and the date since which it has been operative. *Diploma of Fellow.*—Candidates are required to demonstrate by the bedside of patients, by regulation in force since May, 1867. *Diploma of Member.*—Candidates not at present tested by practical examination, but will be so tested on and after the 31st of March, 1871. *Licence in Midwifery.*—No practical examination of patients, but a practical test upon the skeleton in the use of obstetrical instruments, and in the ordinary manipulations by means of special apparatus.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

M.R.C.S.—The writer is well known, but it would be giving him too much importance to mention his name here.

R. N.—The list is duly published. The days for examination are announced some time previously.

A Pupil.—Dr. Copland acted *pro tempore* as lecturer on Medicine on the retirement of Dr. Elliottson.

THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am sure all Medical officers in the Poor-law service are greatly indebted to Dr. Brady for his able support and speech on their behalf in the Commons House of Parliament, but I beg permission to suggest that it should be left to the Poor-law Board and not the guardians to decide upon the grant and the amount of superannuation allowance to old and faithful officers; for from my own experience and that of others I am convinced that if left to guardians it will be on the usual system—very small or not at all.

Uttoxeter, June 28. I am, &c. WORKING ON.

We have been requested to publish the following petition:—

"To the Right Honourable and Honourable the Lords Spiritual and Temporal in Parliament assembled,

"The Petition of the Committee of the County and City of Cork Medical Protection Association,

"Humbly sheweth,—That the experience of the last twelve years has convinced your petitioners that the efficiency and usefulness of the General Medical Council of Great Britain must remain extremely imperfect until considerable modifications in its constitution and working are effected, and petitioners therefore regret that that body has been allowed to retain its original form for the purposes of the Medical Act, 1870.

"That the modifications which appear to your petitioners essential to the successful working of the measure now before your Honourable House are—

"1. A reduction in the number of its members from its present cumbersome dimensions to one better calculated to accomplish practical results.

"2. A more equable representation of the various bodies interested than at present exists. The representation might include the universities, the other licensing bodies, and the general body of the Medical Profession of the United Kingdom, and the Crown, with the Medical Directors-General of the Army and Navy.

"3. More frequent sessions of the Council, or the appointment by it of an authorised permanent executive, or both, the few days at present given once in the year to its important and multifarious requirements being utterly inadequate to the attainment of any beneficial results.

"That your petitioners are strongly of opinion that the appointment of one examining board for the three kingdoms is the surest way to secure uniformity and efficiency of examination, and that the examiners should test practically, as well as theoretically, the qualifications of all candidates for the license to practice.

"That your petitioners cordially approve of the recommendation by the Board of Trinity College, Dublin, that after each State examination the names of the successful candidates, and the numbers of their marks, should be published, together with the names of the Medical schools at which they had received their education, as it is at present done by the Army and Navy Boards, and that no candidate should be admitted to examination until he had proved that he had received a regular Medical education from some duly qualified body.

"Finally, that your petitioners look upon it that unless the third paragraph of clause 22 of the proposed Medical Act be made imperative, and a prosecutor to be authorised by the Council be appointed, it is almost certain to become a dead letter.

"And your petitioners will ever pray.

"Signed on behalf of the committee.

"JOSHUA R. HARVEY, M.D., Chairman.

"CHARLES ARMSTRONG, M.D., Honorary Secretary."

In Rure.—The contract is binding on both parties: It cannot be annulled except by an appeal to chancery, or by the bankruptcy of one of the contracting parties.

Lapsus is correct; the *e* is short.

Nolens Volens.—The senior party in years takes precedence.

R. S.—There is no such regulation; it was abrogated some years since.

Equity.—The assistant who gave evidence was not entitled by *law* to the fee, but in *equity* he should have received half of it.

ROTHERHAM HOSPITAL AND DISPENSARY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As we have suddenly lost our late House Apothecary, and advertised for a fully qualified House-Surgeon, I take this opportunity of saying (for the benefit of candidates for this office) that the new Hospital, which is now erecting with every sanitary improvement and the best arrangement for ventilation, will be ready for occupation in about twelve months; and the probability is much in favour of the Dispensary House-Surgeon being elected to the Hospital if his qualifications and character are satisfactory to the Medical staff, although the rules of the Dispensary will not admit of such election at present. I am, &c.

E. T. SHEARMAN, M.D., F.R.S.E., &c.

Moorgate, Rotherham, June 28.

APOTHECARIES TO THE FORCES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Quœre: Is the following a new degree? Is the art and knowledge of the apothecary to be exercised by a colour sergeant? Is the life of the poor soldier of such little consequence? Is the Profession thus to be trifled with? I am, &c. CELSUS.

"Medical Department—Assistant-Surgeon William Graves, from Royal Artillery, to be Staff Assistant-Surgeon, *vice* John Norman Davis, placed on half-pay; Colour Sergeant Wm. Amphlett Moss, Army Hospital Corps, to be Apothecary to the Forces, *vice* William James Barber, placed on half-pay."

COMMUNICATIONS have been received from—

Dr. GEORGE JOHNSON; Mr. A. P. WATKINS; Mr. MAUNDER; Dr. E. LONG FOX; Dr. R. J. CALLENDER; Mr. F. HENSMAN; Mr. STOTHARD; Mr. HENRY ARNOTT; Dr. COOKE; Rev. Dr. BARRY; CELSUS; Dr. J. ROGERS; Dr. SANSOM; Dr. W. T. WATSON; Dr. GERVIS; Dr. SHEARMAN; Dr. SNOW BECK; Mr. M. COUSINS; WINTONIENSIS; Dr. WILLOUGHBY ARDINO; Dr. J. R. FAIRBANK; Dr. T. R. ADAMS; Dr. BEIGEL; Mr. C. F. MAUNDER; Dr. WILLIAMS; Dr. MOXON; Dr. H. SMILEY KANE; Mr. T. SPENCER WELLS; Dr. BALLARD; JOHN CHATTO, ESQ.; Dr. LETHEBY; WORSING ON; Mr. C. ARMSTRONG; VICTIM.

BOOKS RECEIVED—

Medical Temperance Journal, No. 4—MacCormac on Amputation through the Knee-joint—Transactions of the Edinburgh Obstetrical Society—Testimonials in favour of Dr. Alexander Kieller—Half-yearly Abstract of the Medical Sciences, January to June—Braithwaite's Retrospect of Medicine, January to June—Report of the Committee of Visitors of the Lunatic Asylum for the North Riding of Yorkshire—Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris—Recent Legislation on "Contagious Diseases" considered, especially with reference to the Army and Navy—Army Medical Department Report for the Year 1868—Hardwicke's Science Gossip, June.

NEWSPAPERS RECEIVED—

Nature—Cosmopolitan—Echo Médical et Pharmaceutique Belge—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

July 2. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.

4. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

5. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.

6. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.: King's College Hospital (by Mr. Wood), 2 p.m.

OBSTETRICAL SOCIETY, 7 p.m.: Council Meeting. 8 p.m.: Dr. Rasch, "On Air in the Vagina." Mr. George Lowe, "A Case of Hæmorrhage from Retained Placenta after Abortion, terminating fatally." And other Papers by Dr. Routh and Dr. Rogers.

7. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

8. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic Hospital, 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 25, 1870.

BIRTHS.

Births of Boys, 1075; Girls, 998; Total, 2073.
Average of 10 corresponding weeks, 1860-69, 1937·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	681	601	1282
Average of the ten years 1860-69	621·6	569·8	1191·4
Average corrected to increased population	...	...	1310
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	3	8	21	1	5	1	6	...	19
North ...	618210	3	15	25	2	5	3	7	2	20
Central ...	383321	1	12	12	...	2	...	3	...	11
East	571158	2	6	8	...	4	2	1	2	17
South	773175	2	10	29	1	11	1	4	2	19
Total	2803989	11	51	95	4	27	7	21	6	86

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·017 in.
Mean temperature	63·8
Highest point of thermometer	90·2
Lowest point of thermometer	47·7
Mean dew-point temperature	52·1
General direction of wind	Variable.
Whole amount of rain in the week	0·12

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 25, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending June 25.	Deaths Registered during the week ending June 25.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2073	1282	90·2	47·7	63·8	17·67	0·12	0·30
Portsmouth ...	122084	12·8	95	42	84·0	45·7	62·5	16·94	0·00	0·00
Norwich	81087	1·09	51	35	86·4	47·0	61·1	16·17	0·73	1·86
Bristol	171382	36·6	112	66	80·7	44·5	59·4	15·22	0·03	0·08
Wolverhampton ...	72990	21·5	58	32	83·3	45·5	61·5	16·39	0·23	0·59
Birmingham ...	369604	47·2	209	115	82·0	47·9	62·5	16·94	0·16	0·40
Leicester	97427	30·4	69	29	86·5	46·0	62·4	16·89	0·12	0·30
Nottingham ...	88888	44·5	40	40	86·5	44·9	62·6	17·00	0·25	0·64
Liverpool	517567	101·3	391	216	76·8	49·8	59·4	15·22	0·27	0·69
Manchester ...	374993	83·6	269	162	82·0	47·5	61·3	16·28	0·23	0·59
Salford	121580	23·5	105	42	78·7	46·7	58·8	14·89	0·27	0·69
Bradford	143197	21·7	138	65	77·8	47·3	61·1	16·17	0·39	0·99
Leeds	259527	12·0	235	119	80·0	48·0	62·3	16·83	0·35	0·89
Sheffield	247378	10·8	170	94	79·5	47·0	61·0	16·11	0·18	0·45
Hull	130869	36·7	72	44	80·0	43·0	57·8	14·33	0·34	0·86
Sunderland ...	94257	30·5	52	21	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	69	59	...	...	...	...	...	...
Edinburgh	178970	40·4	148	76	74·7	46·0	58·3	14·61	0·40	1·02
Glasgow	468189	92·5	407	237	68·8	45·2	55·5	13·05	0·16	0·40
Dublin (City, etc.*)	321540	33·0	194	126	76·9	37·5	57·6	14·22	0·00	0·00
Total of 20 Towns in United Kingd'm	7209603	33·8	4957	2912	90·2	37·5	60·5	15·83	0·24	0·60
Paris—Week ending June 25	1889842	242	...	1149	...	...	...	...	...	...
Vienna—Week ending June 18 ...	605200	167	...	362	...	...	68·0	20·00	...	...
Berlin—Week ending June 23 ...	702437	128	545	580	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·017 in. The highest barometrical reading was 30·19 in. on Tuesday, and the lowest was 29·77 in. on Friday.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

ON VISCERAL NEURALGIA.

By Dr. ALBERT EULENBURG,
Lecturer on Clinical Medicine in the University of Berlin.

IV.—Neuralgia Mesenterica.

Etiology.—In the strict sense of the word we are acquainted with the etiology only of the toxic (saturnine and some endemic) colics. It is true some have considered colds, arthritis, hysteria, hemorrhoids, etc., as causes of the disease, and accordingly they distinguish a rheumatic colic, a hysteric colic, an arthritic colic, and so on. In such *soi-disant* etiological distinctions, former authors were both liberal and ingenious. Thus Cullen has seven, Good six, and Sauvages even twenty-two forms of colic. Of course, suppressed pedal perspiration could not be absent from amongst the causes of the disease, but sudden suppression of intestinal secretions, cold food, liquids in hot seasons, and even psychical influences, have also been accused as causes of the affection. The essential question to decide is, whether we must take the term colic in its stricter or in its looser signification: if we accept everything which authors have described—such as Colica Biliosa, C. Flatulenta, C. Stercoracea, etc., and which have been partly opposed to, and partly identified with, "nervous colic;" then, of course, some of the above-mentioned noxious influences, and many more, may be considered as accidental causes of colic.

Proceeding now to lead-colic, I must premise that I do not at present allude to chronic saturnine toxæmia in general, but only to a single symptom of the same. I must therefore limit my observations to a few important points, and for the rest refer to the monographs, and particularly to the classic work of Tanquerel, also to the writings of Stokes, Andral, Aran, Thompson, and others. Lead colic is the most frequent, and as a rule the first symptom of chronic lead toxæmia; all the preparations of lead do not, however, seem to favour the development of colic to an equal degree. Oxide of lead and white lead are generally acknowledged to be peculiarly apt to induce it, but Thompson as well as Stokes and others have maintained that acetate of lead—basic as well as neutral—does not produce colic when taken internally, but does produce it when applied externally, the acetic salt becoming transformed into carbonate by the carbonic acid of the air; at all events, this much is known, that the therapeutic internal use of acetate of lead produces colic only when given in very large doses, and through a long period. The mode by which lead is introduced into the organism comes into consideration, and seems more important still than the form of preparation employed. By far the most dangerous form is absorption of lead by the respiratory apparatus, as the continued inhalation of the dust or vapour of lead. This is the reason why certain workmen are particularly liable to lead-colic, as workers in lead mines, those in white-lead factories, house and carriage painters, potters, typemakers, and others. It is mysterious why amongst workers in the same mines and factories, and amongst artisans of the same trade, some should be attacked early, others late or never. It is equally inexplicable why some should be slightly affected, others very severely; why some should become paralysed early whilst others exhibit similar symptoms, only late or perhaps not at all; and lastly why, under the continued influence of the same causes, long intervals between the attacks should sometimes occur, and very short ones at other times. Recently attention has been directed to some other causes of lead colic; for instance, to the indulgence in snuff enveloped in leadfoil, to the sweetening of wine by means of sugar of lead, to the preparation of food in leaden vessels, or in vessels badly glazed, and to the contamination of water which has been conducted through leaden pipes.

Most of all the cases of so-called *endemic colics*, that of Poitou, Devonshire, Madrid, Cayenne, India, etc., are probably of saturnine origin. In such instances the disease has been attributed to the use of vegetables, fruits, and particularly sour or new wine; and it has accordingly been described as colica vegetabilis, colique végétale—as, for instance, that of Poitou. Most of them when thoroughly investigated have, however, manifested etiological circumstances referable to lead poisoning, such as the use of leaden vessels and pipes, adulteration of wine with acetate of lead, and so on. The same observation will apply to endemic colics on board ship, as was shown by Lefévre(a) from numerous observations on French men-of-war. Some authors have objected to the identity of these endemic colics with lead colic, and it seems not improbable that some of the endemic and epidemic colics—especially those occurring in the tropics—are not of saturnine, but of miasmatic infectious origin.

The fact—established by Burserius, Stokes, and others—that saturnine neuralgia occurs also in animals, is very remarkable. Stokes observed it in cows feeding on the fields in the neighbourhood of the Scottish lead mines; and other authors have seen it in cows drinking water from rivers which originate in lead districts.

In the *diagnosis* of mesenteric neuralgia, the same conditions exist as in gastric neuralgia; practically, the requirement is not so much to diagnose the neuralgic disease as to exclude the existence of structural changes in the walls and the appendages of the intestine. Amongst other mistakes, hysteric colic is said to have been taken for peritonitis. In peritonitis, as a rule, the pyrexia is decisive; there is excessive tenderness to touch on pressure, and the phenomena persist much longer than the usual duration of a paroxysm of colic. These criteria may, however, be also present in some cases of colic; if the history and the results of objective examination do not indicate the nature of the disease—which, however, is scarcely conceivable—then, of course, the diagnosis can only be formed by watching the course of the disease. Colic-like pains occur in various acute and chronic intestinal affections, especially in dysentery and in carcinomatous ulceration of the intestines. In these cases ordinary attention only is required to distinguish the symptoms from those of mesenteric neuralgia.

The *prognosis* in the most important form of the disease—viz., in lead colic, in almost unconditionally favourable both with regard to the single attacks and to the whole series of attacks. These always terminate spontaneously, but they can be much alleviated and shortened by Medical interference. When we say that lead colic is always curable we must add that it almost always recurs; the tendency to recur is supported by the two-fold difficulty, that we are able only incompletely to eliminate the deleterious agents deposited in the tissues, and that patients, even if such complete elimination were possible, too often remain exposed to the original exciting cause. This latter difficulty more especially applies to miners, workers in factories, and other artisans, who at once return to their work when cured of an attack, and then not only become liable to new attacks but at the same time to a greater degree of chronic toxæmia, and get palsy, arthralgia, brain affection, and so on.

Fatal results never occur from colic in general, nor by the saturnine or the endemic form simply; in cases recorded by various authors in which death occurred the fatal result was always due to a more intense degree of poisoning or else to accidental complications. The grave changes in general nutrition known as lead cachexia again are not the result of colic but of the total influence of the lead on the organism.

Respecting other forms of colic the etiology of which is still so vague little can be said from a prognostic point of view.

The *treatment* of the disease has to be directed towards elimination of deposits of lead, and prevention of the recurrence of poisoning. For the purpose of elimination those drugs come into play which increase the secretions, the laxatives, diuretics, and diaphoretics. Charcoal baths are renowned for their power of eliminating lead through the skin, and it cannot be disputed that the thermal waters of Aix-la-Chapelle have produced good results in many cases. Elimination through the kidneys is aided by iodide of potassium, which forms a soluble double salt with the lead compounds present in the blood and tissues. As a prophylactic measure, and a *conditio sine quâ non* of complete recovery, change of occupation is necessary, but in most cases the patient is not in a position to adopt this advice; we must therefore limit ourselves to the recommendation of certain precautions to prevent as far as possible the contact of lead with the mucous membrane of the mouth and respiratory apparatus. Workers in lead must avoid dust as much as they can, must not eat in the workroom, must take frequent baths, and be particularly scrupulous in matters of cleanliness. The administration of chemical prophylactics, especially of preparations of sulphur, which are to form insoluble sulphates with the lead deposited, has been justly ridiculed by Œsterlen, and I should be sorry to say that the advice to avoid common salt so as to prevent solution of the inhaled particles of lead is of any greater

(a) Lefévre, "Recherches sur les Causes de la Colique sèche observée sur les Navires de Guerre français, particulièrement dan les Regions équatoriales," Paris, 1859.

value. In the non-saturnine colics, treatment of causes can be scarcely mentioned from our ignorance of their etiology.

For *the treatment* of an attack the same principles hold good, as a rule, in saturnine and non-saturnine colics; the former, as the most severe and most typical, may serve as an example.

As lead colic has been known for a long time, its diagnosis unmistakeable, and its course extremely constant, kinds of routine magisterial treatment have in course of time been established, which, according to the various modes and tendencies on which they are based, have been called dietetic, chemical, antiphlogistic, revulsive, sedative, evacuant, and the combined method. Amongst these the so-called dietetic—*i.e.*, abstinence from food—and the revulsive methods scarcely now deserve mention. Of the most important chemical agents we have already spoken; others which have been recommended, as soda, magnes. sulph., alum, zinci sulphas, hydrargyrum, and so on, have no effect whatever, at least not as chemical antidotes. The antiphlogistic method, formerly much esteemed, might be of possible value only in cases complicated with inflammatory affections of the intestines, if such existed. The employment of narcotics and evacuants is, however, of great importance; the former produce not only a remission and cessation of the pain, but disappearance of the motor phenomena of irritation, the spasmodic intestinal contraction, excessive tension of the abdominal walls, and, more important still, of the intense constipation, which does not even give way to the most violent drastics. These effects are produced only if the narcotics be employed in a repeated and energetic manner. It is a curious fact, confirmed by the best authorities (Stokes, Bamberger, Niemeyer, and others), that in lead colic no better treatment exists for the obstinate constipation than that by the narcotics, which, under other circumstances, usually confine the bowels, and more particularly opium. This drug, as well as morphia, must be used boldly and repeatedly in such doses as will produce decided results. A more powerful and rapid action than is produced by the internal administration of narcotics may be derived from the use of hypodermic injection of morphia and opium, by which I have seen the most striking effects produced, especially immediate relief to the tormenting pain and cessation of spasm. Other drugs—as belladonna, hyoscyamus, nux vomica, and nicotine—are more uncertain than opiates. Chloroform may be recommended internally, as well as for inhalation and for embrocation to the abdomen. The same applies to Aran's liquor anæstheticus. For my part, I consider all remedies superfluous, with the exception of opium and morphia. Cases which are not relieved by these two will certainly not be benefited by the others, whilst the reverse of this is often the case. This peculiar mode of action of the narcotics is partly explained by the experiments of Nasse: he finds that opium and strychnia increase by reflection the irritability of the excito-motor ganglia of the intestines. These latter may thus counteract the effect of the "inhibitory" (hemmende) fibres of the splanchnic nerves, the irritability of which is increased during the paroxysm.

Evacuant medicines are serviceable for the purpose of eliminating lead; they are, however, insufficient for the treatment of constipation during an attack or during a series of attacks. This applies not to the mild aperients only, as senna, sulphate of potash and soda, calomel, and ol. ricini, but to the drastic purgatives also, of which croton oil is the most valued. A mixed method of treatment, combining the narcotics and purgatives, has become justly established. The former are most appropriate at first, but when the pain has been removed by them and the first motion passed, more powerful evacuants may then be employed. This plan is more rational than the employment of purgatives at first and afterwards narcotics, or than the use of both promiscuously.

Recently some results have been derived from Faradisation and the constant current. The number of observations is, however, so small that no deductions can as yet be made from them.

Warm baths and heat applied locally, the latter by means of embrocation of warm oil or of large poultices to the abdomen, and so on, may be resorted to as slight palliatives in lead and other forms of colic. On the contrary, Monneret has recently recommended cold as a palliative, but he has found no followers.

Pharmaceutical Society of Great Britain.—At a meeting of the Council of this Society held on the 6th inst. Dr. B. H. Paul was elected editor of the *Pharmaceutical Journal* in the room of Dr. Redwood. A change in the journal itself has likewise been made; from being a monthly it has just become a weekly periodical. Dr. Paul was elected by a large majority of the council.

LECTURES ON DERMATOLOGY,

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Lecture IV.

I.—DISEASES OF INFLAMMATION.

(*Continued from page* 657.)

Inflammation from Traumatic Causes.

There are certain affections of the skin which originate in causes which are exterior to the body and which belong to the category of external injuries or traumatic affections. Of these, some are the consequences of temperature such as the group of burns and scalds; and also that of chills and frostbite, while others proceed from the presence of animals upon, or in, or under the skin, and sometimes from bites and stings.

The effects of heat and cold upon the human economy are to produce depression of the vitality of the tissues; and the degree of depression will be manifested by a variety of results ranging in importance from simple hyperæmia or erythema to absolute death of the part. In the simplest kind of burn or scald the most prominent feature of the injury is redness, hence the term *ambustio erythematosa;* a more severe form of injury is attended with vesication, hence another term, *ambustio vesiculosa;* and a burn or scald accompanied with destruction of the life of the skin is *ambustio gangrænosa.* The same subjective terms are applicable to *gelatio* or frostbite; and to that more homely consequence of chill—namely, *pernio* or chilblain; hence we have also *pernio erythematosus, pernio vesiculosus,* and *pernio gangrænosus.*

In illustration of the effects of *chemical* and *mechanical irritants* I may refer to peculiar forms of eruption met with in certain trades and as a consequence of the handling of acrid or caustic substances, for example sulphuric acid, sulphate of quinine, cyanide of potassium, etc., and I may further draw your attention to one of the very beautiful models on the table exhibiting a remarkable form of ulceration occurring to artisans employed in the manipulation of arsenical salts.

The Parasites of the human skin present us with a somewhat extensive catalogue; in the first place there is the *Steatozoon;* secondly, the *Acarus*; thirdly, the *Pediculus;* fourthly, the *Pulex;* and then follow the *Cimex*, the *Œstrus*, and the *Filaria Medinensis.*

The Steatozoon folliculorum or *Entozoon folliculorum*, called by Gustav Simon, who first described it, *Acarus folliculorum*, and by Owen *Demodex folliculorum*, gives rise to no morbid affection of the skin. Its existence would seem to appertain to that law of nature which provides—that where there is food there also will be found living beings to consume and to transmute that food. These steatozoa are met with near the apertures of follicles wherein sebaceous matter is accumulated in considerable quantity, especially in the follicles of the face; and, within the sebaceous substance they deposit their ova, and the ova pass through a series of metamorphoses before the perfect evolution of the animalcule is achieved.

Acari occur very extensively in the animal kingdom. Scarcely a single genus of animals exists that has not its special acarus, and several have been noticed in connexion with the skin of man. Of these, the most important is the acarus that excites scabies in the human skin, the *Acarus scabiei*; while, not less troublesome, in the autumn season and on certain soils, is the *Acarus autumnalis*, the harvest bug, or mower's mite.

The *Acarus scabiei* of Linnæus, the *Sarcoptes hominis* of Latreille, makes use of the skin of man as its dwelling place and also as the source of its food. The female excavates tortuous burrows in the epidermis in which she deposits her ova, in which the embryos pass through their transformations and the young attain their maturity. At an early age the young have only three instead of four pairs of legs, and when their development is complete the sexes are distinguished by the presence of a pentelebate foot on the posterior pair of legs in the male and the absence of this appendage in the female. Acari scabiei are most abundantly met with in the hands, the thicker epidermis and many folds of that region contributing to their protection and facilitating the excavation of their cuniculi. These last are discovered by their whiteness, by a succession of dilatations or flutings corresponding with the daily rests of the animal for the deposit of ova, and in the most distant of these dilatations the

animal itself may be discerned. The males do not burrow, but take advantage of the broken cuticle as a shelter by day, while at night they rove about upon the skin in pursuit of young females and of food. It is at this period and in consequence of the nocturnal habits of the creature that contagion is more commonly effected.

The disease scabies is a consequence of the irritation caused by the acari. The eruption, as is well known, is one of a multiple lesion, consisting of erythema, of papulæ, of vesiculæ, and pustulæ, and, in degree, it is proportioned rather to the susceptibility of the individual than to the number of the acari. It is most abundant usually upon the hands and wrists, and in the next place upon the abdomen and buttocks, in the neighbourhood of the pudendum and upon the front and inner side of the thighs; its copiousness in the latter region being explained by the transference of the animalcules during the night from its principal habitat, the hands.

The *Acarus autumnalis* or harvest bug is a minute red spider, scarcely larger than the *Acarus scabiei*. Under the name of harvest bug or mower's mite, it is a well-known torment of the country at the autumn season of the year. It attacks the human skin only for a full draught of blood, and occasions by its bite erythematous and sometimes swollen and glossy blotches that are excessively itchy and painful.

The Pediculus, or louse, presents us with three varieties of parasite: the *Pediculus capitis*, *Pediculus corporis seu vestimentorum*, and *Pediculus* or *Phthirium pubis*. The first and last of these seek the protection of the hairy regions of the body for their operations; they maintain their position by holding on to the hairs, and to the shaft of the hairs they agglutinate the *nids* which hold their ova. The *Pediculus corporis* clings to the smoother surfaces of the body, but deposits its ova upon the clothing, and very probably attaches itself to the clothes, excepting at feeding time. On certain persons they are sometimes found in vast numbers, creating great irritation of the skin, inducing scratching and laceration of the derma and so laying the foundation of a irritative cutaneous affection. Such a disease has been termed *phthciriasis*, and also morbus pedicularis.

The Pulex, or flea, is another not uncommon source of irritation of the skin and a good example of the degree of irritation that may be excited in different persons by one and the same cause. The flea penetrates the skin deeply with a double lancet, and by means of these lancets, employed as a sucker, draws up its supply of blood. A single flea will often pierce the skin a considerable number of times, and the marks, or petechiæ, grouped closely together, may suggest the idea of an eruption, and the form of eruption may be confounded with purpura. It is important, therefore, to remember that the central punctum produced by the lancets may always be detected, and may be thoroughly relied on as a means of diagnosis. Our common and accustomed flea is termed *Pulex irritans* to distinguish it from another of more mischievous character, met with in the Southern States of America, in the West Indies, and in South America. This latter, the *Pulex penetrans*, the chigoe or chiggre, burrows into the skin for the deposit of its ova; it selects as the seat of its operations, the lateral wall of the nails of the toes, and often gives rise to such serious inflammation as to render amputation of the affected part, and sometimes of the entire limb, a necessary consequence. The negroes have the credit of being very expert in the extraction of the sacs in which the ova are contained; and, after the operation, they are in the habit of squirting a little tobacco-juice into the wound.

The Æstrus bovis, so well known for the habit of burying its ova in the hide of the ox, will sometimes do the same in the skin of man; and burrowing for long distances under the skin, give rise to much pain and inconvenience.

The Filaria Medinensis, or Guinea worm, is a resident beneath rather than within the skin, and after a while occasions pain and inflammation of the integument. An inflamed spot indicates the presence of an abscess, and a puncture of the abscess gives exit to a coil or considerable length of the worm. The worm is then slowly wound out of the cavity in which it lies embedded, and the patient is relieved. Sometimes so much inflammation is occasioned by the presence of the creature that it dies, and a spontaneous cure of the patient takes place, and sometimes the worm is converted into a solid calcareous mass. The *Filaria Medinensis* is a native of the hot regions of the East, and takes its origin in impure drinking water. Very commonly it is met with in the lower extremities only, but sometimes in other parts of the body; it is usually solitary, but occasionally a considerable number have been observed in the same individual.

In addition to parasites, we may also include under the present head, the stings of insects, as of the wasp, the hornet, the bee, and the mosquito, the bites of snakes, and of wild and domestic animals; and the sting of certain plants such as the nettle and the poison oak or vine of the United States of America.

ORIGINAL COMMUNICATIONS.

GUNSHOT WOUNDS OF THE THORAX.

By J. FAYRER, M.D., C.S.I., F.R.S.E.,
Professor of Surgery, and Senior Surgeon Medical College Hospital, Calcutta.

Gunshot wounds of the thorax are of comparatively rare occurrence in civil practice, and it is seldom that we have such opportunities of studying the pathological phenomena they give rise to as were afforded in the following very interesting cases, which have occurred within the last sixteen months, and have been treated in my wards of the Medical College Hospital. The notes of these cases are taken from the Hospital case-books, and are sufficiently faithful records of what occurred. In the first fatal case it is matter of regret that more elaborate details of the post-mortem appearances were not preserved, but in the brief report furnished by the coroner's proceedings we have ample explanation of the cause of death. In the second fatal case we have most accurate details, and the history of this case both before and after death is most interesting and instructive.

These four cases were all of a severe character, for in each the lung was perforated by the shot. In the last case the wound of the lung was complicated by wound of the liver and diaphragm, a charge of large (No. 2) shot having penetrated the right side of the chest over the liver. In the first and third cases the patients recovered, and it was remarkable that the injury in each was attended with so little constitutional disturbance or interference with respiration. Recovery occurred under the simplest treatment, little more, indeed, than rest being required, no venesection or depletion being resorted to.

In the first case the wounds were sealed by the application of gutta-percha dissolved in chloroform, according to the plan of Dr. Howard, of the United States army, to prevent the entry of air; but I doubt very much whether it was of any real benefit, or if the patient would not have done just as well with ordinary dressing.

In both cases of recovery it is worthy of note that the bullet passed through and did not lodge, nor was there apparently any foreign body, such as wadding or clothing carried in with it. The velocity and force of the bullet was such as to make a tolerably clean wound as it passed, and this no doubt contracted rapidly, and no great vessel being wounded, the effusion of blood was comparatively slight. The physical signs indicated a certain amount of consolidation and subsequent return to the natural condition. The dyspnœa was very slight, and the general disturbance excited by the injury trifling.

They left the Hospital perfectly recovered, and I saw one some time afterwards quite well, his health as good as it was before the accident. In the second favourable case the left lung was perforated by a revolver pistol bullet, discharged—like the other, close to the patient's body, though in this case it was accidental, whereas in the other it was not so. The bullet traversed the left lung and scapula, emerging just under the spine of that bone on the left side. It seemed marvellous how more important parts escaped. In this case the wound through the lung must have contracted closely, and large vessels have escaped, as there was no hæmoptysis. The physical signs, as well as the direction of the bullet, proved that the lung had been wounded. In this case the mischief was rapidly repaired without any urgent or unfavourable symptoms, and he left the Hospital in thirty-seven days quite well.

In neither of these cases was any pneumonic or pleuritic inflammation excited. The uninjured lung also remained free from congestion, compensating by its increased action for the defect in power of the injured lung, which, it is to be observed, was in each case only partially interfered with—the portion immediately round the wound only being disabled. There was nothing to indicate the necessity for depletion or venesection, and the treatment was addressed to such symptoms as from time to time suggested the necessity for the simplest remedies.

In cases of serious injury to one lung, where collapse or engorgement of it results, great dyspnœa would probably arise, and if on the disturbance of the circulation, which

would necessarily follow, the uninjured lung became congested, the life of the patient would be in the greatest peril. In such cases I believe that, at whatever subsequent cost from loss of blood, life would only be preserved by its free and rapid abstraction, and it is a point of considerable importance, requiring judgment and confidence in the Surgeon, as the condition in which it would be necessary is one not apparently suggestive of the need for venesection. For the patient would most probably have a feeble and labouring pulse, a cold clammy skin, and a pallid or livid countenance. In such a case, if the true pathology of the patient's state were not recognised, it is not difficult to understand that in these days of anti-bleeding the young or inexperienced Surgeon might lose the only opportunity of relieving the embarrassed pulmonary circulation and the chance of saving life.

In the first of the two fatal cases, injury of the spine was added to that of the contents of the thorax. Paralysis of the lower limbs indicated one, hæmoptysis, and emphysema with the symptoms of partial collapse of the lung, indicated the other.

Emphysema, of course, alone is not necessarily a proof that the lung is wounded, neither is the issue of air from the bullet wound; for it may be merely the result of air drawn in during the inspiratory movements of the thorax being either forced out again, or into the subcutaneous areolar tissue; but as it also may be caused by wound of the lung, it is, so far, confirmative, other symptoms of that injury being present. The hæmaturia in this case is not so easily accounted for, but I am inclined to attribute it to the catheter, with which the urine was drawn off from the paralysed bladder.

It is much to be regretted that the autopsy says so little on the nature of the internal injury or of the condition of the parts. The injury to the spine is not even noticed.

In the second fatal case, in which the patient was shot by the accidental discharge of his own fowling piece loaded with No. 2 shot, which penetrated the lower and right side of the anterior part of the thorax over the lower lobe of the lung and the liver, there are many points of interest to be noted.

The gun when discharged was almost touching his side, being in his own hand at the time. The explosion made a large ragged aperture, through which the charge passed, and the result showed how much the shot even then had scattered, for they were found embedded in the liver, the lung, the diaphragm, loose in the thorax, under the integument of the thorax, and embedded in the costal cartilage. Comparatively few were found. The whole charge, his friends inform me (for they counted one), contained 180 grains of shot. Not more than the sixth of these were found, though, perhaps, had the liver and the remains of the lung been more fully explored, others would have been discovered. No part of the clothing nor wadding were found in the wound. He brought no account of his case with him, and as he had been several days under treatment when he came to us, it is possible that these, if lodged, had been removed. The changes passed through by the wounded lung resulting in complete collapse; the effusion into the thorax of quantities of bilious fluid, similar to that which was expectorated; the pericarditis, from which there seemed to be scarcely any hope of recovery, but which passed away, leaving the heart completely glued to its investing membrane; the coagula that formed in the right cavities of the heart, and terminated his existence; and the complication of the liver wound, were all very interesting as their progress was watched from day to day. At one time he improved so much that hopes began to be entertained of his recovery; but the extent of disease was too great, and he finally succumbed.

Not the least remarkable feature in the case was the perfectly natural and unembarrassed manner in which the left lung continued throughout to perform its functions, notwithstanding the excessive pericarditis and the destructive changes that were going on in the right lung, pleura, and liver.

It was also remarkable that throughout the duration of the case the wound continued to granulate and cicatrise healthily.

(To be continued.)

Fauna of Round Island.—The remarkable discovery has been made by Sir H. Barkly, governor of Mauritius, of four species of snakes and several species of lizards, in Round Island, a small island twenty-five miles from Port St. Louis, and separated by a sea only 400 feet deep, no animals of that description being natives of the Mauritius. The flora was also found to be to a great extent specifically distinct.—*Academy*, No. 6.

EXPERIMENTS WITH CONIA.

By D. DYCE BROWN, M.A., M.D.,
Medical Officer to the Aberdeen Dispensary, and Fellow of the Obstetrical Society of London; and
ALEXANDER DYCE DAVIDSON, M.A., M.B.,
Assistant Professor of Materia Medica, University of Aberdeen, and Surgeon to the Aberdeen Ophthalmic Institution.

The settlement of the question upon what portion of the nervous system conia acts primarily, is of the first importance to a right understanding and appreciation of its value as a therapeutical agent. Up till quite recently, views regarding its action were entertained which accurate observation has now proved to be erroneous. The prevalent view was that the force of the poison acted primarily, if not solely upon the spinal cord, and through its medium upon the motor nervous system. Thus Pereira (Mat. Med. p. 1726) says "The primary seat of the action of conia is probably the spinal cord. In this conia and strychnia agree. . . . . Conia exhausts the nervous energy of the cord, and causes muscular paralysis; strychnia irritates it, and produces permanent spasm of the respiratory muscles. It is evident, therefore, that like strychnia and nux vomica, its operation is on the seat of the reflex functions, which, according to Mr. Grainger, is the grey matter of the spinal cord."

The first who threw any new light on the subject was Dr. John Harley, who in his "Old Vegetable Neurotics," gives experiments to show that the spinal cord is that portion of the nervous system which is last influenced by conia; inasmuch as reflex movements could be excited subsequent to complete paralysis of the voluntary muscles, and it was only with a dose sufficiently great to prove fatal that the reflex function was much interfered with (op. cit. pp. 9 and 50). He therefore concludes that it is through the medium of the cranial motor centres that paralysis of the voluntary nervous system is produced.

The accuracy of these conclusions has, however, been of late impugned by Kölliker and Guttman, a short summary of whose experiments and conclusions is to be found in Dr. S. Ringer's recent "Handbook of Therapeutics." These experimenters refer its action neither to the cerebral centres nor to the spinal cord, but to the motor nerves themselves, and to their peripheral extremities primarily. The principal experiment which they considered warranted their adoption of this conclusion was that of tying the femoral vessels of one limb of a frog, thereby preventing the poison being conveyed in the current of the blood to the periphery of the nerve, leaving at the same time the nervous communication with the centres intact. They then found that the operated limb could perform powerful muscular movements after its neighbour was completely paralysed, and that irritation of the paralysed parts produced energetic muscular contractions in the ligatured limb. As this has such an important bearing upon the therapeutical action of the drug, we resolved to satisfy ourselves of its accuracy by repeating the experiments which led to the above-mentioned conclusions.

Conia was prepared (from the freshly gathered leaves of the indigenous plant along with the seeds when just beginning to ripen in the month of August) by distillation, in presence of caustic potash, by Dr. Davidson. The general phenomena of conia poisoning were first studied in frogs, and these may be briefly related from their complete resemblance to those which are to be immediately described. Very soon after the application of the poison (diluted) to the frog's back, the hind limbs began to have their mobility impaired, causing them to drag. The leap became feebler and shorter, until at length all motion was abolished, and the limbs became completely powerless and flaccid. Gradually the paralysis crept from below, invading the abdominal muscles and those of the superior extremities, until there was complete relaxation. For a considerable time, however, reflex movements could be excited by pinching the skin of the limbs, the tongue, and the anal region, but gradually it became less and less, first in the hind legs, and then in the fore, so that when producible in the latter they could not be produced in the former. As the poisoning proceeded, the heart's action grew slow and weak; respiration then became much slower; the eyelids alone could at last be excited to contract by irritation, and death from impaired respiration came on, the heart stopping last of all. The pupil was not found altered in the least degree.

The next experiments were made upon the higher animals.

1. In a young cat, the femoral vessels on one side were secured by ligature, under chloroform. The animal was then

allowed to recover perfectly from the effects, when it was found that the limb operated upon was quite as freely moved as the one which had not been interfered with, showing that the nervous cords had not been included with the vessels. Soon after the poison had been administered the hind limbs began to move feebly, the ligatured one being equally affected with the sound one, and the two advancing *pari passu* in the gradual paralysis. Gradually the paralysis invaded the fore-legs, the animal all the while showing that sensation was perfect. Reflex movements could be excited by pinching the skin of various parts of the body, but gradually they became abolished, disappearing last of all in the eyelids and lips. Intelligence was undisturbed; the pupil was, if anything, somewhat dilated; the secretions were unaffected either in quantity or quality. Respiration and the pulsations of the heart grew gradually slower and feebler, until death from apnœa gradually come on.

2. A full-grown rabbit was treated in exactly the same way, and gave identical results, the hind limb, which had been operated on, becoming gradually paralysed in precisely the same ratio as the other. The eyelids drooped, so that the eyes were almost closed, though they could be excited to contract to within a short period before death supervened.

It has been affirmed that in rabbits poisoned by conia violent convulsions came on at an early stage. In our experiments clonic convulsions were seen to occur, but only to a slight extent and late in the course of the paralysis. This experiment, repeated a second time in case of error, therefore furnished results exactly the reverse of those narrated by Kölliker and Guttmann. We must therefore adhere to Dr. Harley's views, and conclude, with him, that conia's chief action is that of a paralyser of the cranial motor centres in the first place, and, secondly, of the spinal centres, and not of the periphery of the motor nerves.

Aberdeen.

TWENTY-SIX CASES OF TYPHOID FEVER TREATED SUCCESSFULLY BY NEW MILK.

By ALEXANDER YULE, M.D.,
Medical Officer Fernhurst District, Midhurst Union, and late Assistant-Surgeon R.N.

THERE is nothing new about the treatment of this fever by milk. As such treatment may not, however, be the general one adopted, I have been induced to offer my humble testimony as to its efficacy. It stands to reason that people suffering from disease quite as much require food as those in health, and much more so in certain diseases where there is rapid waste of the system. Frequently all ordinary food in certain diseases is rejected by the stomach, is loathed by the patient. Nature, ever beneficent, has furnished a food that in all diseases is beneficial—in some directly curative. Such a food is milk. In the twenty-six cases we have treated of typhoid fever its great value was apparent.

To be sure our numbers are not large, yet sometimes the small indicates the resultant on a larger scale. The indications we followed were—(1) to check diarrhœa, (2) to nourish the body, (3) to cool the same.

With regard to the diarrhœa in typhoid fever, we believe it ought, if possible, to be checked, or at least restrained; for you might as well think of leaving a sore throat in scarlatina to take its course (being eliminative of fever poison) or irritate it a little as of encouraging diarrhœa in typhoid fever. Astringents were used in all cases (with occasional doses of ipecacuanha), acid. sulph. dil. being found most serviceable. The acid was used from beginning to end of fever. We imagine that in those cases where diarrhœa is encouraged ending in recovery, the patient got well in spite of the treatment; for we believe that nothing so much tends to extending of ulceration, to hæmorrhage, peritonitis, and protracted convalescence as the use of salines or suchlike remedies. Who would think of healing an ulcer by irritating it, by not allowing rest for the reparative powers of nature to do their work? An ulcer in the ilium requires rest quite as much as one in the leg.

When diarrhœa became violent, the most powerful astringents were used, and when the bowels were once "locked up," they were so maintained from ten to fourteen days, with not only no inconvenience, but with decided advantage. To cool the body and to nourish it were the other two indications.

1. *As to Nourishment.*—That the body in fever wastes rapidly is evident; and from the accumulation of waste material in the blood, and the want of pabulum to feed the fever, the most disastrous results eventuate—resulting in death—from the fever drying up the very issues of life. Now, if pabulum can be afforded to repair the textures that, from the action of the fever poison, are being used up, one great, if not the greatest, object in treatment is attained; for fevers obey, like everything else in this world, certain fixed laws. Like an object in vegetable life, there is the seed, the bud, the unfolding, the full leaf, the withering away and decadence—so with fevers and their incubation, ingravescence, etc. Now, if the body can be sustained until the fever has gone its course, health will result. Milk, of all things, seems best adapted for this purpose; for it is digestible, is relished by fever patients, contains all the requisite material for the nourishment of the entire body—the nervous system in especial, which in fever is always greatly affected. Furthermore, in fever there is great thirst, and patients ardently long for that which will cool the parched month. Thus, by interdicting the use of water *in toto* throughout the fever, nourishment can always be given in the shape of cold new milk. Cold beef-tea is by no means to be despised, but is much less relished, and not unfrequently loathed when the fever is intense, while milk is then taken with much gusto. Again, cold milk, when the diarrhœa is severe, exercises a most kindly action upon the iliac ulcerations. The rule we adopted was to allow milk *ad libitum*. In some cases quantities far beyond what could be absorbed by a stomach whose powers of absorption were reduced to a minimum were taken, a portion of the milk passing in an undigested state from the bowels. This, however, far from, in my mind, being an objection, was a decided boon, for the milk as it passed over the inflamed and ulcerated ilium exercised a soothing influence.

3. *To Cool the Body.*—Now cold milk is an admirable agent for cooling the body (cold water would do as well, but then new milk nourishes and cools at the same time), and heat is a prominent symptom of fever (*ferveo*, I boil), and a measure of the activity of the fever changes in the body. Another agent used in all these cases was the acid. sulph. dil., which aided in reducing temperature, in restraining diarrhœa, and, if the theory is to be credited, diminishing the alkalinity of the blood.

Concluding General Remarks.—Such was the treatment relied upon in the treatment of twenty-six cases of typhoid fever. Six of the cases were in adults over 22 years of age, ten between 9 and 22, the remainder being under these ages. Wine was given in no case during the active continuance of fever, as it increased the diarrhœa (when tried), and promoted delirium. When the fever had left, and the patient became exhausted and sleepless, then wine in three cases did well. Never more than six ounces was required per diem, and that only for a few days (in an adult). In two cases where there was great pain in ilium, blisters applied there did good. A few doses of tartar emetic and tr. opii was used in one case to procure sleep, which it sufficed to do. We believe that milk nourishes in fever, promotes sleep, wards off delirium, soothes the intestines, and, in fine, is the *sine quâ non* in typhoid fever.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CURIOUS NERVOUS AFFECTION.

(Under the care of Dr. BROADBENT, Senior Assistant-Physician.)

THE following case is interesting in several respects:—

William G., aged 17, a domestic servant, applied at the Hospital on March 31, having for a week presented the symptom to be described. Whenever he speaks—and only when he speaks—the head is suddenly jerked back, and at the same instant the eyes are partially or quite closed, and there is evident a slight tension in the facial muscles generally. At times the left side of the mouth is said to be drawn up, but this was not observed. The jerk is accompanied by a pain which darts through the temples. On examination the movement of the head was seen to be due to a momentary powerful contraction of both sterno-mastoid muscles, the tendons of which, at the sternum, started up violently. No other muscles in the neck were thrown into action except apparently to

control the effects of the contraction of the sterno-mastoids. While the patient did not attempt to speak no jerk ever occurred. After a silence at all prolonged the first word was accompanied with a jerk of unusual violence, and while he was speaking the movements were scattered irregularly through the sentences. The jerk was not a mere "nervous" trick; the patient was remarkably free from any indication of what is called nervousness; he could wait at table throughout a dinner without a single movement unless he were called upon to speak, and the movements were just as frequent when he talked to his fellow-servants as when he answered his master. It was, indeed, in the evening conversations with his fellow-servants that the jerking affected him most; but whether this was because he talked more at that time or because it got worse towards night was not made out. There was no stammering, but he said his "talking" was affected at times.

The conclusion from these observations is that the seat of the change or derangement to which the symptoms were due was not the cerebral hemisphere or central ganglia, but the nerve nuclei in the medulla. It was obvious that the contractions of the sterno-mastoid were due to abnormal radiations of the impulse to the laryngeal muscles for vocalisation along the sterno-mastoid branch of the spinal accessory nerve, as well as along the part of this nerve which joins the vagus. The instability, however, was not limited to the nucleus of the spinal accessory, but extended to other neighbouring nuclei, to that of the facial, and perhaps to the fifth.

No cause could be assigned for the local nervous weakness. The patient was otherwise in good health; had lived well; his appetite was good; the bowels open, and he had not, according to his own statement, been guilty of excesses of any kind. He was ordered pil. hydrarg. c. colocynth., gr.x. as an aperient, and the Hospital mist. ammon. c. gentiana, and was soon free from his disagreeable symptoms. He came to the Hospital again after a short absence on May 2, but was seen by the clinical assistant, who made no record of his symptoms. On May 19, however, he again appeared, stating that, after being entirely free from the jerking for some time, he was seized on the 16th with severe pain in the right hypogastric region, and on the 17th an eruption came out on the right buttock. On the dorsum ilii, in effect, and round the trochanter, were found large groups of herpetic vesicles, all at the same stage, just at full maturity, and the case was one of zoster in the area of distribution apparently of the iliac branch of the ilio-hypogastric nerve, though one of the patches was situated at a part nearer the front of the thigh than is usually reached by this nerve. An interesting feature was that, while the pain and tenderness from the first and at the time of examination was very great in the parts supplied by the hypogastric branch of the nerve, the herpes was confined to the iliac branch, not a single group or vesicle appearing in the hypogastric region.

The case is interesting whether regarded as an affection of the nerve nuclei in the floor of the fourth ventricle or as an example of zoster; and possibly the sequence of the two affections may be merely accidental; but it is also possible that they were simply two different manifestations of a particular condition of system, the difference, moreover, being one of localisation only, and not of character—a point of view which would confer additional interest on the case as a whole.

ST. BARTHOLOMEW'S HOSPITAL.

OPERATIONS.

Some interesting cases were brought into the theatre at this Hospital on Saturday, May 28, of which the first was perhaps the most so. The patient was a man aged about 40, with a large malignant growth, described as having the naked-eye characters of a "firm medullary carcinoma," springing from the anterior wall of the antrum, and projecting both into this cavity and into that of the orbit. The removal of a large mass so situated was necessarily a work of time and difficulty. Mr. Paget turned inwards a large flap made by cutting from the angle of the mouth to the zygoma, dissected away the healthy soft parts, and then removed the whole of the diseased portion with the surrounding bone as freely as possible. The structure of the growth (judging from a small bit which we were allowed to take away for examination) was that of epithelioma, in which the cells had undergone various alterations in shape by mutual pressure, and in some parts of which there were "nest"-like arrangements; but to the naked eye the mass resembled rather some of the more succulent forms of malignant disease.

Mr. Paget also removed a dermoid cyst from beneath a man's orbicularis muscle, dissecting it out so carefully as to get away entire a little thin-walled cyst, the size of a large marble, with fluid contents. He remarked to the students upon the importance of removing these tumours entire, so as to neither complicate the operation, nor leave a bit behind to keep the wound open, and mentioned that as a rule such tumours are always congenital, always contain hair or some dermoid structures, always adhere firmly to the frontal bone, are always very troublesome to remove, and are seldom larger than a marble. Mr. Paget explained that the clear contents of the present cyst probably resulted from a blow received by the man at some distant period, which had set up inflammation, for this has commonly the effect of destroying the cuticular contents, leaving the thing a more or less simple serous cyst.

Mr. Holmes Coote next cut a boy, aged 9, for stone. The little fellow had been subjected to the same operation in this Hospital four or five years ago, and made a good recovery. The operation was the usual lateral one, but some little difficulty was experienced in getting into the groove of the staff on account of the incision being made through the cicatricial tissues left by the former operation. The stone was of large size, and Mr. Coote commenting upon the past history of the case, could not give a very favourable prognosis, thinking that the disease might again return. As far as the operation was concerned all would probably go well enough, the treatment in such cases consisting simply of keeping the child quiet in bed.

Mr. Coote also amputated the arm of a man, aged 65, for epithelial ulcer on the back of the left hand. The operation was rendered necessary by the pain caused by the ulcer, and by its offensive discharge, which rendered the hand useless, and a diseased gland above the elbow moved the site of amputation to the middle of the upper arm. The ordinary flap operation was performed, ligatures used, and the flaps brought together with three metallic sutures and broad straps, dry lint and a bandage being bound over all. These dressings were to remain for four days, when it was hoped that most of the wound would have already united.

THE LONDON HOSPITAL.

AMPUTATION OF THE ARM, AND OTHER CASES TREATED WITH CARBOLIC ACID BY LISTER'S METHOD.

(Under the care of Mr. JOHN COUPER.)

It is undoubtedly true that London Surgeons have not taken up Professor Lister's mode of treatment of wounds by carbolic acid very energetically, although all who have visited the wards in the Edinburgh Infirmary, where this method is practised, seem unanimous in their expressions of surprise and satisfaction at the results obtained. It is said, moreover, that a Surgeon cannot profitably employ Professor Lister's plan of treatment without starting with a fair amount of faith in his theory also, since the success of the treatment depends almost entirely—we are told—upon the scrupulous attention to details throughout, in order to insure from first to last the absolute exclusion of contaminating air. When, therefore, we heard that Mr. Couper had thoroughly adopted the theory and treatment in his wards at the London Hospital, we were very glad of an opportunity of attending the visit on June 18, that we might see what was being done, and contribute something on the subject to our Hospital reports.

The most important case was one of amputation through the arm. We believe that a case of the successful application of this plan of treatment to amputation wounds has not yet been published, and we may therefore be excused for describing this one pretty fully. The man lay in "Dorrien" ward, bed 55. He was a healthy man, aged 30, and had been admitted on June 4 for compound comminuted fracture of both bones of the forearm. The limb had been caught between two cogwheels of an engine, and before it could be extricated, the bones had been broken into many fragments, and the soft parts extensively lacerated. Mr. Couper at once amputated the arm, making skin flaps, and dividing the muscles circularly, as near as possible to the elbow. The arteries were secured by torsion, the fresh surfaces of the flaps well washed with a strong solution of carbolic acid, brought together with carbolised wire sutures, and the whole enveloped with carbolic lac plaster, reaching high up the arm, and kept close to the limb. The stump was then raised on a pillow, so that any discharge might trickle down under the plaster towards the axilla, and the dress-

ings were not removed until the date of our visit (fourteen days). For the first five days the temperature in the axilla ranged from 100° to 104° Fahr., but by the eighth day it was down to normal, and remained so afterwards. On the 11th (seventh day) slight oozing of sero-purulent fluid from under the plaster was first noticed, but this discharge was perfectly inodorous, and in all other respects the man did perfectly well. At the visit to-day Mr. Couper wished to see the state of the stump, believing that the dressings might by this time be no longer necessary. They were therefore removed, with the following precautions:—A gum-elastic catheter being fitted on to the nozzle of a large brass syringe, this was filled with a solution (1 in 40) of carbolic acid, and the point of the catheter being carefully inserted up under the plaster to the face of the stump, the solution was slowly forced in, so as to loosen the plaster. Then a piece of lint, soaked in carbolic acid solution, was held ready to throw over the stump as the plaster was removed, and a rose spray of the same fluid was played upon the part meanwhile. The condition of the stump, however, was not quite satisfactory, for the position of the limb had given a tendency to the flaps to fall away, and as the coverings had prevented any action of this sort from being detected earlier, a small portion of the end of the bone was found exposed, and surrounded by healthy-looking granulations. Under these circumstances, as the wound had mostly healed, and the granulations would only be irritated by the contact of the carbolic dressings, Mr. Couper clipped away the remains of the wire sutures, washed the stump, and applied ordinary water dressing.

In this instance the carbolic acid seems to have done its share well enough. There was no discharge of putrid pus, and very little surgical fever or pain; but the necessary dressings had no doubt contributed materially to the exposure of the bone between the flaps; for since this was only to a very slight degree, if it could have been seen in time, the flaps might have been readily supported, and a speedy union secured. If torsion had not been adopted, the ligatures would have been carbolised, cut short, and left in the wound.

Mr. Couper said that the immunity from pyæmia and erysipelas enjoyed by the patients treated in this manner had been very marked. Although both these affections had been somewhat prevalent in the wards of late, only one patient who had been subjected to the carbolic acid treatment had suffered, and this exceptional case formed such a capital proof of the rule that we may give a note of it.

The patient was a girl, aged 19, lying in Mary ward, and now doing well enough; but when she had been admitted she was suffering from a large abscess over the sacro-iliac synchondrosis. This was opened by Mr. Couper, under carbolic oil dressings, and covered with the lac plasters as described in the amputation case. There was some erysipelas in the ward, but the girl remained quite free from it, until by some carelessness the plaster was rucked up so as to uncover a portion of the wound. Then, straightway erysipelas appeared at that portion, but the dressings were renewed, increased care taken that they should not be again shifted, and she did perfectly well afterwards. When we saw her there was some slight purulent discharge, but this was quite sweet.

In 68 bed, Devonshire ward, lay a man, aged 36, who had been admitted on May 16 with a compound comminuted fracture of the humerus and a lacerated scalp wound. Whilst working a crane, the handle swung violently round, striking his arm, and, as he fell, his head also, finally pitching him against a rail so as to tear up the scalp. The wound in the arm was very small, but communicated with an oblique and comminuted fracture of the shaft, which evidently ran down between the condyles into the elbow-joint. Carbolic acid in strong solution was applied to the wound, and lac plaster wrapped about the limb, and renewed every second or third day, and the case did perfectly well, the temperature keeping above 100° until May 26 (10th day), and afterwards remaining normal. There was now some discharge from under the plaster, but this came from an abrasion of the skin and not from the more serious wound. It appears that a granulating surface will not bear the contact of carbolic acid in any form, and when a wound has nearly healed, leaving only healthy granulations exposed, these should be protected with oil-silk under the dressings, or water-dressings substituted for the carbolic acid.

Two other cases in which the same treatment had been adopted were patients with sub-periosteal abscess of the femur. In neither of these had any very marked benefit been derived, but both had suffered from less than the usual amount of pain and fever, and the discharge was not offensive.

We may mention that we saw in one of the beds a case of circumcision, in which the usual sutures had been replaced by two or three little serre-fine forceps, to the great relief of the patient when the time came for withdrawing the wires.

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Medical Times and Gazette.

SATURDAY, JULY 9, 1870.

THE MEDICAL ACT (1858) AMENDMENT BILL IN THE LORDS.

No one would venture to assert that the wisdom or public spirit of our hereditary legislators has been conspicuously displayed in the debates which have taken place on the Amended Government Medical Bill. That Bill, when introduced first in their Lordships' House by the Lord President of the Privy Council, had one or two glaring faults, and was open to improvement in several particulars, which we at the time pointed out. It had, however, one virtue, and that was a redeeming one: it carried into effect honestly and fully the "one portal to the Profession" principle, and for that reason it was warmly welcomed by the Profession. In an evil hour the Lord President, after the second reading of the Bill, in obedience to the narrow and selfish claims urged by the representatives of certain bodies which were not magnanimous enough to abandon their petty interests in favour of the interests of the great Profession of Medicine, committed the egregious mistake of omitting from his measure the only prohibition which really met the evils which the Bill was professedly designed to counteract, the only clause which in reality closed the nineteen existing portals. When the Bill thus "amended," or rather "mutilated," was published, we at once drew attention to the grievous loss it had undergone, and showed clearly that in its present state it would be utterly valueless, and in fact injurious to the Profession. The view which we took of the matter has received confirmation from every quarter. Competent lawyers affirm that there is nothing in the Bill which will in practice prevent any gentleman who obtains a Medical diploma from a university or corporation exercising the duties of his Profession, and that certainly the penal clause 21 of the Bill, will be utterly insufficient to do so. The Medical press is unanimous as to the necessity of reinserting clause 18. The largest and most powerful of the existing Medical bodies has obtained, by calling, for the first time in its history, a public meeting of its Fellows and Members, a united assertion that the Bill, deprived of that clause, will not satisfy the demands of the great body of English Practitioners. Other professional bodies, second only in importance to the Royal College of Surgeons of England,

have petitioned the upper House to reinsert the clause—with what effect? The Bill went into committee of the House of Lords, was discussed clause by clause, and finally passed through the committee without one effort being made by any noble lord to obtain the reinsertion of the clause which the whole Profession are desirous of restoring. What took place was simply this—Two of the foremost leaders of the Conservative majority, the Duke of Richmond and Lord Cairns, the one representing the Scottish Universities, the other Trinity College, Dublin, had placed amendments on the paper drawn up in favour of the Corporations for which they appeared. As might have been expected, these amendments were by no means in unison on important points. The Conservative camp was therefore divided, and the Conservative whip did not act. The Government whip, however, brought up a strong muster to support the Lord President's amended Bill, Lord Cairns and the Duke of Richmond finding themselves likely to be in a minority withdrew their amendments, and the Bill finally passed not only through committee, but the third reading, after a short conversation, without a single division. If this is the way in which their lordships think it wise or decent to dispose of the fortunes of a great Profession like that of Medicine we can assure them they have fallen into a deep mistake. If the House of Lords believed themselves competent to legislate for the Medical Profession, they at least should have taken the trouble to make themselves acquainted with the current of Professional opinion on the subject, and not have ignored that opinion with apparent contempt. The upper House has hitherto enjoyed a character for fairness and painstaking in matters of domestic legislation which it can ill afford to lose. The way in which it has passed the Lord President's Medical Bill, practically unchallenged, must at least with all who know the circumstances of the case seriously damage its reputation.

Having said thus much, we proceed to summarise the chief points in the debates. In committee on Thursday, last week, the Duke of Richmond regretted that the Bill would deprive the University of Aberdeen of part of its revenues from examinations. He would not, however, move his amendments, as they would strike at the root of the Bill, and if he had intended to do this, he ought to have done it on the second reading. Of course Earl de Grey complimented the Duke on his "candour and fairness." On clause 13 Earl de Grey moved and carried an amendment making the General Medical Council grant the licences instead of each national examining board. This is an improvement, although a very small one. On clause 17, the Marquis of Salisbury, evidently knowing nothing of the powers wielded by the General Medical Council under the Act of 1858, objected to the power given to that body to erase the name of Practitioners guilty of infamous or disgraceful conduct in a Professional respect. Lord de Grey answered that the only advance made by the clause on the existing law was the addition of the word "disgraceful." He naïvely added that the punishment of erasure from the register would not prevent persons still practising Medicine, for all that the Bill did was to forbid non-registered persons from assuming titles calculated to mislead the public as to their real position. After this open confession of the weakness of his Bill, we find his lordship on a subsequent occasion, with charming consistency, asserting that the penal clause would prevent unregistered persons holding diplomas from British Universities and Corporations from doing the very thing that he allows any quack or disgraced person has perfect liberty to do. No more damaging comment on the Bill could be made.

After this, Lord Cairns aired his particular crotchet of only exempting graduates of Universities which require graduation in arts previous to graduation in Medicine, from the necessity of becoming licentiates in Medicine and Surgery. The Duke of Richmond suggested that this would not suit the University of Aberdeen, and the Earl of Powis said it would not exempt the University of Cambridge, and so the amendment was negatived without a division.

Some slight amendments were agreed to. The holders of colonial and foreign degrees, we believe, are to be required to be 40 years of age, and to have been ten years in practice before they can be registered. The age proposed, as Lord Salisbury remarked, was doubtless suggested by the proverb that "a man must be a fool or a Physician at forty." The majority clause, the injustice of which is so manifest, is to be altered so that a majority of five over two of the Medical authorities will be necessary to carry any proposal in the scheme for an examining board. This is again a small improvement, but the erasure of the clause would have been a far better one.

This was the substance of the debate. The Earl of Lichfield, it is true, gave notice that he would move on the bringing up of the report, that a clause be inserted giving to the Profession in the three kingdoms eight representatives in the Medical Council. This pledge he fulfilled, but Lord de Grey had no difficulty in convincingly explaining the objections to direct representation, and the matter was allowed to drop, Lord Lichfield expressing himself content with the assurance that had it been at an earlier stage the Government would have considered his amendment. Whether this assurance will equally content the supporters of direct representation in the British Medical Association we should doubt. As we have often asserted, we should welcome a fair representation of the Profession through the existing corporations and universities. For such representation the machinery already exists, whilst for direct representation, as Lord de Grey said, it would have to be created.

The Marquis of Clanricarde having apparently awoke to the fact that the House of Lords was doing a very unpopular thing in sending down the Bill in its present unsatisfactory condition to the House of Commons, made a gallant but too late attempt to get it rejected on the third reading. The Bill has passed the Upper House, and it now remains to be seen whether the Profession of Medicine will allow a measure of this unsatisfactory complexion to become the law of the land. Mr. Forster, we presume, will have the care of the Bill in the Commons. We would urge upon all the great Professional bodies, whether corporate or otherwise, and upon individual Medical men throughout the country, to impress upon Members of the House of Commons that nothing but the reinsertion of clause 18 will satisfy the demands of the Medical Profession. When that clause is reintroduced, it will be perfectly easy to supplement it by a clause saving the privileges of the Universities in one of the ways which we suggested last week, either by admitting their graduates to the licence on easy terms, or by permitting the Universities to grant honorary degrees in Medicine which are to be withdrawn if used as titles to practice, and the holder to be prosecuted by his University. Either of these compromises might be accepted. But we repeat that it will be the fault of the Profession if this Bill in its present worse than useless form be pushed rapidly through the House of Commons. Mr. Brady is to present the petition of the College of Surgeons of England for the reinsertion of clause 18 to that House. We trust that that petition will be followed by many others, and that, not content with mere petitioning, our brethren both in town and country will bring all their influence to bear on Members of the House of Commons to procure for their Profession a true and useful measure of Medical reform, or, failing this, to postpone all legislation on the subject.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. I.

Voltaire was no respecter of persons or of professions, and was by no means remarkable for sweetness of temper, whatever amount of light he may have attained to, or have been the source of. But while he undeniably was disagreeably eminent

as a sayer of hard and bitter sayings, he was as eminently a man of keen and shrewd intellect and observation, and his bitter sayings stung and lived because they each contained a kernel of truth. We do not suppose that he really knew very much about the science and art of Medicine as it was in his day, yet he would be a very bold man who would deny that there was not a little truth in the Philosopher's sneer at the Physician as "one who pours drugs, of which he knows little, into a body of which he knows less." We can claim, however, to have altered things very greatly for the better since the Philosopher of Ferney's time. The anatomy of the human body, or at any rate its coarse anatomy, is now thoroughly well known. Physiology and pathology have made vast strides and, through the labours of generations of earnest hard-working inquirers, have grown into sciences. Post-mortem-room morbid anatomy may indeed be considered as being now as well known, as fully well worked, as the anatomy of the healthy body is; and great advance has been made in diagnosis and prognosis, in our power of detecting and discriminating diseases, and in our knowledge of their tendencies and effects. And though each real gain in our knowledge of the body in health and in disease makes us the more ready to confess our ignorance, still it cannot now be said of the Physician that he knows less than little of the body he undertakes to treat.

But while these parts of Medical science have been so advanced, the real knowledge of drugs and their effects, our knowledge of therapeutics has lagged sadly behind, so that not long ago, on the establishment of a new society of Medical observation, the eminent Physician who was its first President declared that the thing most needful among us was, "More exactness of knowledge, and then more direct and intelligent purpose, and more successful aim in what is really the end and object of all our labours—the application of remedies for the relief of disease." And he went on to confess that, "Certainly the greatest gap in the science of Medicine is to be found in its final and supreme stage —the stage of therapeutics. . . . . We want to learn distinctly and clearly what is the action of drugs and of other outward influences upon the bodily organs and functions. To me it has been a lifelong wonder how vaguely, how ignorantly, how rashly, drugs are often prescribed. We try this; and, not succeeding, we try that; and baffled again, we try something else, and it is fortunate if we do no harm in these our tryings. Now this random and haphazard practice, wherever and by whomsoever adopted, is both dangerous in itself and discreditable to Medicine as a science. Our Profession is continually fluctuating on a sea of doubts about questions of the gravest importance." Were not all these grave words, not uttered by one who doubts "whether any kind of medication, other than the '*vis medicatrix naturæ*,' is of any real efficacy or value," but by a Physician who freely declares his faith in the power of drugs—was not all this a confession that the first half of Voltaire's sneer was still painfully true and applicable?

Its force and pertinence have, however, been undoubtedly lessened in the last few years, and if we cannot honestly say that the Clinical Society, at the first meeting of which, in January, 1868, the remarks above quoted were made from the President's chair, has yet done much to lessen their truth, yet we gladly acknowledge that it has done good work. It was the outcome of a widely-spread recognition of "the thing most needful among us"—of the "greatest gap in the science of Medicine"—and it has banded together, and given greater force and directness of aim to the labours of, those scientific and accurate observers who are earnestly endeavouring to fill up the gap and supply the much felt want.

While we hold that our knowledge of therapeutics has made considerable and real advance of late, we fear that were we to attempt to sum up that progress and to present it in the concrete the harvest would appear but meagre in quantity, and of imperfect quality; but the tillage is extremely laborious and difficult. Some and valuable help may be obtained by the observation of the action of drugs on the lower animals, and on man in a state of health; but the knowledge so obtained can, at the best, only be a guide and stepping-stone to the further study of the same drugs therapeutically. For, the action of a drug on one of the lower animals is not always a true or safe guide to its action on man, and "some drugs possess therapeutic properties of which we could obtain no hint from a study of their physiological actions." Again, chemical analogies and affinities, and similarity of chemical composition, may to some extent guide us in the selection of remedies, but cannot be more than a guide-post. But the only safe, final, and complete source of the accurate and scientific therapeutical knowledge we require must ever be careful, instructed, and repeated observation of the action of drugs on the diseases of the human body.

And here many and not slight difficulties are met with. The disease or disordered condition to be treated must be accurately diagnosed, and then numerous possible sources of error must be avoided, and many outside influences eliminated, ere any noted effects can be safely attributed to the action of any drug or drugs that may have been administered. The natural tendencies and course of a disease must be known, and the effects of rest, warmth, pure air, and proper diet, or we may place to the credit of our so-called remedies changes which are natural to the malady treated, or have been brought about by the circumstances under which the patient has been placed. Remedies must be prescribed "with singleness and simplicity," and with definite purpose and aim, guided, indeed, but not dominated, by theory or preconceived idea of their action; their effects must be noted with extreme care, accuracy, and trained intelligence; and the observations made must be multitudinous, and well sifted and compared, ere really trustworthy results can be obtained.

But many and great as are the difficulties in the way of our gaining precise and persisting knowledge of the peculiar virtues and specific agencies of medicines, and laborious as the acquisition of such knowledge may be, real and marked progress in this path has indisputably been made of late. Numerous able and eager labourers have been at work, and their powers of observation have been aided and enlarged by the advance of collateral sciences, and by the help of such instruments of precision as the clinical thermometer and the sphygmograph.

To fully sum up the progress so made would be a very difficult task, but it is easy to mention some examples of our gains. Thus, by means of hypodermic injection and of the spray apparatus, we have acquired new and very valuable modes of administering medicines; chemistry has provided us in some of the alkaloids with greatly improved forms of old medicines; among new remedies we have the hydrate of chloral, carbolic acid, and the carbolates, apomorphia, podophyllin, and the Calabar bean; and our knowledge of the powers and uses of other remedies, such as digitalis, ergot of rye, bromide of potassium, aconite, the veratrium viride, and belladonna, has been greatly enlarged, and made more positive.

These examples may suffice for the present to support our assertion that real progress is being made towards a science of therapeutics, but it may be profitable to give in some future articles some further and fuller illustrations of that fact in the shape of some gleanings from the field of modern therapeutics.

THE CHAIR OF MIDWIFERY IN EDINBURGH.

The election of a successor to the lamented Sir James Simpson took place on Monday last. For some time back, as is usual in such cases, much excitement has prevailed among Professional circles in Edinburgh. Speculations were current as to the chances of the respective candidates, and no efforts were spared to influence the election in favour of certain of the candidates. The

election rests with the curaters of the university—a corporate body, constituted by seven members, four sitting as representatives of the Town Council, and three of the University Court. The candidates were four in number—Dr. Alexander Simpson, Dr. Matthews Duncan, Dr. Keiller, and Dr. Coghill. When the voting began, three voted for Dr. Simpson, three for Dr. Matthews Duncan, and one for Dr. Keiller. The latter having been thus disposed of, the voting was resumed for Drs. Simpson and Duncan, when four votes were recorded for the former, three for the latter, securing the chair for Dr. Simpson by a majority of one. Curiously enough, the four Town Council votes were those recorded for Dr. Simpson, the representatives of the university all voting for Dr. Duncan.

If party spirit ran high before the election, it seems to have run still higher after, and the local press is unanimous in condemning the selection made by the curators. They point out with justice that the representatives of the university were men of rank and reputation as scholars, including among their number one of her Majesty's judges, whilst the town councillors were men selected for a totally different reason, and, as far as their council duty went, for a totally different purpose. It is not unlikely that some attempt will be made to obtain a revision of the mode of electing to university chairs in the future.

As to the merits of the candidates we have said but little. The three who obtained votes are all men of mark. If we are to estimate them by work done we must fairly put Dr. Matthews Duncan at the head of the list. Dr. Keiller is also well known both as a teacher and a writer. But, in justice to Dr. Simpson, we must say this, that, a much younger man than either of the others, he has had opportunities of the most varied kind for obtaining a knowledge of his selected department of our Profession. It is further well known that he has availed himself of these advantages to the utmost, and that as his uncle Sir James's assistant he proved himself a skilful teacher. If he has not yet made his mark on the literature of our Profession it may be attributed to his age and modesty. He has shrank from speaking without that authority which only long experience can give, and not from any inability or want of capacity to deal with his subject. The fame of his uncle has deeply impressed the Edinburgh public, whom the Town Council represent, and a portion of this feeling could hardly fail to be reflected on his nephew, who was so long associated with him, and it is not unlikely that they may have been actuated by a desire to preserve for the University the splendid collection of teaching material brought together by Sir James Simpson, and now the property of his nephew.

At the same time we most heartily sympathise with Dr. Matthews Duncan, who, without disparagement to the other candidates, we must say, has been for years looked upon as the legitimate successor to a great predecessor, who has worked hard, and worked well, to maintain and extend the domain of Scotch school of gynæcology, and who cannot fail to be bitterly disappointed at thus losing the crowning reward of a long and laborious career. And yet we are sufficiently catholic in spirit to see that there is something to be said in behalf of the action of the Town Council. In one respect we rejoice at it, hoping that it may be the means of doing away with a system now established in Scotland—a system which we thoroughly dislike. When Dr. Matthews Duncan publicly announced his candidature, he did so, and backed his claims in a fashion both simple and dignified by publishing a list of his works, and the criticisms of the public prints on them. Would that he had stopped short here! But after, came series 1 and series 2 of testimonials from all quarters, and Dr. Keiller followed suit. No one who turns over the many leaves of these volumes can help being struck with the very unequal value, from the unequal stations of the givers, of these testimonials—a country Practitioner in some remote district on one page, a name of European celebrity on the other. If there were any attempt at selection it might be all very well, but if we are to be borne down by the brute force and magnitude of these volumes we must enter an energetic protest. We have known—we will not say in this instance, but in others—of candidates writing to every one of eminence in connection with the subject to which the contested Chair was devoted, enclosing a list of published works, and requesting a testimonial by return of post. Such a system we again protest against as neither dignified nor gentlemanly. The value of testimonials so obtained must be most apocryphal, and if the system is to prevail we should prefer to fall back at once on the rude but useful test of avoirdupois weight—the heaviest to have the *pas*.

Dr. Simpson sent in no special testimonials for the chair, and yet he succeeded. May this be noted in time to come.

THE ACT REGULATING SCHOOLS OF ANATOMY.

The object of the Anatomy Act (2 and 3 William IV. c. 75) is, as is stated in its preamble, "to give protection, under certain regulations, to the study and practice of anatomy, and to prevent, as far as may be, such great and grievous crimes and murder as aforesaid," the allusion here being to the murders committed by Burke and Hare With a view, therefore, to this twofold object, persons therein defined desirous of practising anatomy are required to be licensed, and notice is required to be given to the Secretary of State of the place where it is intended to practise anatomy "at least one week before the first receipt or possession of a body for *such purpose* at such place."

"In no case shall a body be *removed* for anatomical examination from any place where such person may have died until after forty-eight hours of such person's decease, nor until after twenty-four hours' notice, to be reckoned from the time of such decease, to the inspector of the district, of the intended *removal* of the body." . . . . "Nor unless a certificate stating in what manner such person came by his death shall, previously to the *removal* of the body, have been signed by the Medical man who attended such person during the illness whereof he died, or if there be no such Medical man then by some Medical man who shall be called in after the death of such person to view his body, and who shall state the manner or cause of death to the best of his knowledge and belief, but who shall not be concerned in examining the body after *removal;* and that in case of such removal such certificate shall be delivered, together with the body, to the party receiving the same for anatomical purposes."

Any executor or other party having lawful possession of the body of a deceased person, and not being an undertaker, or other person intrusted with the body for the purpose only of interment, may permit the body to undergo anatomical examination, unless the deceased shall have expressed his desire either in writing or verbally in the presence of two or more witnesses during the illness whereof he died, that his body might not undergo such examination; or unless the surviving husband or wife, or any known relative shall require the body to be interred *without such examination*. Post-mortem examinations required or directed to be made by any *competent legal authority* are not prohibited by this Act. (See section 15.)

The case now before one of the metropolitan police-courts simply resolves itself into the question whether a Hospital is a *competent legal authority* empowered to require or direct post-mortem examinations, for it is not pretended that in the case of Guy's Hospital the preliminary requirements of the Anatomy Act have been complied with. A reference to the charter or Acts of Parliament by which the Hospital is incorporated can alone answer this question. If they are thereby empowered to make post-mortem examinations of deceased patients, then *cadet questio*. They are then legally authorised. If not, it is to be feared they have for years been acting under a misapprehension in this respect. Other competent legal authorities are the executors or relations of the deceased, or the coroner of the district.

Such is the question in its purely legal aspect, but it has other, and to our mind graver, bearings. It is indisputable that the feelings of the friends and relations of deceased persons dying in Hospitals ought to be respected. We should urge, then, on the part of the Hospital authorities the importance of communicating with the relations of a deceased person immediately on his demise. If, as in Hospitals to which Medical schools are attached, the rule be that a post-mortem examination shall be made in every case unless the friends object, this rule ought to be notified to the friends, together with the intimation that unless an objection be entered within a certain number of hours after death the examination will take place. Practically this would occasion no inconvenience, as in all cases twenty-four hours are allowed to elapse before an examination is made. This would effectually silence cavillers, would ensure the support of the public, and would tend in every way to prevent the discussion of a very painful subject in a manner calculated to do infinite mischief to pathological teaching.

THE SANITARY ACT AMENDMENT BILL.

The Bill brought in by Dr. Brewer is framed to amend a defect in the 26th section of the Sanitary Act, 1866. The defect was of course unforeseen at the time the statute was drafted, but a case to which we referred in November last shows that, but for the energy of Mr. Selfe, at the Thames Police-court, its effect would have been to render the section useless in an instance where it was most needed. In the case in question, Dr. Ellison and Dr. Woodford, the Medical Officers of the Board of Works for the Poplar District, applied for an order, under section 26, for the removal to a Hospital of a man named William Kearns, his wife, and three children, who were stated to be suffering from a dangerous and contagious fever. The section enacts that—

"Where a Hospital or place for the reception of the sick is provided *within the district of a nuisance authority*, any justice may, with the consent of the superintending body of such Hospital or place, by order on a certificate signed by a legally qualified Medical Practitioner, direct the removal to such Hospital or place for the reception of the sick, at the cost of the nuisance authority, of any person suffering from any dangerous, contagious, or infectious disorder, being without proper lodging, or accommodation, or lodged in a room occupied by more than one family, or being on board any ship or vessel."

It appeared from the evidence that two Irish families, quite destitute, were inhabiting two close, dirty, and ill-ventilated rooms in a densely populated neighbourhood. The rooms were without furniture. In one was the man Kearns, with his wife and six children. The man, his wife, and three children were lying on the floor suffering from a contagious fever. The three other children, as well as the second family, if not already infected, were in danger. It was proposed to send the patients to the London Fever Hospital at Islington, but they would not consent to go, and it was feared that in the event of an order being made it would be necessary to use force to effect the removal. Mr. Selfe said that as the London Fever Hospital was not within the district of the Poplar Board of Works, it was open to question whether the case came within the section under which the application was made, but as the matter was one of urgency he would take the risk of making the order.

Similar cases may at any time arise, and as it is not certain that another magistrate would have acted with similar promptitude, it is as well to be fore-armed. Otherwise, while time is occupied in considering the best course to adopt, or in finding a suitable Hospital within the district of the nuisance authority, the officers of health would be powerless to continue their efforts for stopping the spread of infection.

By the Bill now before the house, all difficulty in respect of the situation of the Hospital will be removed, as regards the nuisance authority. The Bill is so short, and its principle can admit of so little discussion, that we may reasonably hope that, in spite of the present pressure of business, it will become law this session. It consists of but two clauses, of which the second enacts that "for the purposes of the 26th section of the Sanitary Act, 1866, every Hospital or place for the reception of the sick situate within the limits of the metropolis, as defined by the Metropolis Management Act, 1855, shall be deemed to be within the district of every one of the nuisance authorities in the metropolis."

THE WEEK.

TOPICS OF THE DAY.

The retirement of Mr. Cæsar Hawkins from the representation of the Royal College of Surgeons in the General Medical Council will be generally regretted. Few members of that Council have had more influence in its deliberations, or have discharged their trust with greater judgment, ability, and courtesy than Mr. Hawkins, and we are sure that his refusal to permit himself to be again nominated will be regretted by his colleagues, both in the Council of the College of Surgeons and in the General Medical Council. Either Mr. Quain or Mr. Busk will in all probability be elected to succeed Mr. Hawkins. We need scarcely say that no worthier candidate than either of these gentlemen could be selected were the electing constituency a much wider one than the Council of the College.

The annual meeting of the Poor-law Medical Officers' Association is to take place on Wednesday, the 13th inst., at the Freemasons' Tavern. The proceedings are to commence at 5 o'clock. We are glad to see that the council of the Association find that it will not be necessary to convene meetings of their members so frequently as heretofore. They think that public attention is now fully alive to the necessity of material reforms in the mode of administering Medical relief, and of improving the position of the Medical officers. Under these circumstances they propose that, instead of four meetings annually, they should hold three—two during the Parliamentary session and one in November. After the meeting the members will dine, and it is intended that the dinner should take something of the form of an ovation to Dr. Brady, to whose disinterested and successful exertions in obtaining the practical success of the Medical Officers' Superannuation Bill not only the Poor-law Medical Service, but the whole Profession are under so great obligation. Several members of Parliament, amongst whom are Dr. Dalrymple and Dr. Lush, have accepted invitations to be present, and it is expected that a large number of the members of the association will assemble. No little praise is undoubtedly due to Dr. J. Rogers and the Executive Association for the way they have fought the battle of the Poor-law Medical Officers out of Parliament, and the coming festival should be worthy of the victory which it celebrates. With regard to the Superannuation Bill the Council in their report thus define what will be the exact position of the Medical Officers when it has become law:—

"Thus one of the "objects" of the Association—viz., "to obtain superannuation allowances for the Medical officers," is achieved; for Medical officers are now placed on the same footing as other Poor-law officers with regard to pension. To say, however, that the superannuation laws are altogether satisfactory would be incorrect; but hitherto the Medical officers had no place in them. Now they will obtain a hearing in common with other branches of the Poor-law service, when that reconsideration of the whole question which it is expected Mr. Goschen will give to it ere long, shall take place.

They add—

"The support of Dr. Brady's Bill is not the only benefit, during the past year, for which the Medical officers have to thank the President of the Poor-law Board. He has announced his intention of issuing a general order abolishing the distinction hitherto existing between separate parishes and unions, with respect to the tenure of Medical appointments, so that in future the Medical officers of single parishes will be elected

for life, the same as those in unions, subject to the provisions of the general order of the Board, dated May 25, 1857. When this is effected, a great advance will have been made towards the attainment of the first 'object' of the Association—viz., 'to obtain life appointments for all Poor-law Medical officers.'"

We hear that the authorities of the College of Surgeons have determined to prosecute a Medical student who is believed to have made an attempt to obtain from the printer of the College copies of the examination papers before the examination. There has been on former occasions some suspicion that similar attempts had been made, and the College has determined to make an example. The College authorities believe themselves to be in possession of evidence sufficient to convict the offender. A summons had been issued, and the case was to have been heard on Tuesday before one of the metropolitan magistrates, but the young gentleman did not appear. A warrant has been issued for his apprehension.

The proposal that the memorial to the late Sir James Y. Simpson should take the form of a lying-in Hospital, is already attracting considerable attention in various quarters. Dr. Lauchlan Aitken has written a letter to the *Scotsman*, in which he states what he believes to have been Sir James Simpson's persistent opinion on the subject of maternity Hospitals. His impression is derived from many conversations with Simpson on the subject. As Dr. Aitken's letter is a very important one at the present juncture, we quote a portion of it:—

"Sir James had a great horror of maternity Hospitals on a large scale. He looked on them as unmitigated evils, and he preferred a thousand times, he said, that the poor should be delivered in the most wretched hovels of our own filthy Cowgate or Canongate—and he knew well what those were—rather than that they should be exposed to zymotic influence in the magnificent wards of such a palatial residence, to use his own words, as the Rotunda in Dublin, or the Gebärhaus in Vienna.

"This is a strong statement, and requires abundant proof; but I think I can easily satisfy the public that the late Professor's opinion was really his mature conviction, based on many important data, and confirmed by long practical experience and much thought on the subject.

"In proof of the correctness of my assertion, allow me to state, as succinctly as possible, the facts on which I rest it:—

"1st. For the last few years his introductory lecture to the class of Midwifery in the University has been on the importance of out-door treatment of lying-in women. In this lecture he made great use of the remarkable statistics of Dr. Leon Léfort, of Paris, collected in his valuable work on the Maternities of Europe—statistics which it would be out of place to reproduce in the columns of a daily paper, but which, as I may shortly state them, seem to prove that while 1 in every 32 women delivered in maternities is lost, the death-rate of those attended at their own homes is only 1 in 212. This astounding and horrifying conclusion of Dr. Léfort's Professor Simpson brought prominently before his students in large printed tables; and that he was himself convinced of Léfort's accuracy I can unhesitatingly affirm.

"2nd. When Dr. Kennedy, of Dublin, made his now famed attack on the Rotunda in that city last year, Sir James's sympathies were entirely enlisted on his behalf, and I have frequently heard him express great admiration of Dr. Kennedy's interesting paper and powerful arguments.

"3rd. Sir James's opinion on the value of small Maternity Hospitals was expressed in a paper now unfortunately lost, but, as I wrote the greater part of it, I can confidently state its conclusions. They were as follows:—That no Maternity Hospital should ever be built with more than twenty-four beds; that each bed should occupy a separate apartment, or that, at the most, there should be two beds in one room; that half the total number of beds only should be occupied at the same time, to allow of a complete change from one set of rooms to the other every six or every three months, according to the state of the Hospital; that the Hospital should be built of iron or wood, or some equally cheap material, so that it could be taken down and rebuilt every two or three years; that a maternity should never be merely a ward in a general Hospital, but should invariably be a separate building; lastly, that a maternity was only necessary for purposes of clinical instruction, or for convenience in the performance of the graver obstetrical operations.

"Such, I repeat, were Sir James Simpson's views on Maternity Hospitals up to last November; but at the London meeting in favour of a national memorial to his memory, Dr. Alexander Wood, if correctly reported in the *Scotsman*, declared, in reply to Dr. Priestley's objections to the proposed form of memorial, that in several conversations he had held with him previous to his death, Sir James's opinion on the subject of lying-in Hospitals had greatly changed. It is incumbent on Dr. Wood, I think, to satisfy the public as to this alleged radical change in Sir James's views, and to state the data on which he bases it. I feel satisfied that, had such a memorial been proposed in the late Baronet's lifetime as a memento of any other man, he would have been the first to have raised his pen against it.

"I am authorised by Dr. Munro, who assiduously attended Sir James throughout his last illness, to assert that he is convinced that his ideas remained the same to the last.

"I am, &c. "LAUCHLAN AITKEN, M.D."

One Eugene Taylor, known as Dr. Ralph Richardson, of 101, Drury-lane, has been brought before the Bow-street magistrate on a charge of administering to one Julia Pound noxious drugs with the intent to produce abortion. The prisoner is remanded, and the drugs are to be analysed, but an important point in the case is that Julia Pound applied to the prisoner in consequence of a newspaper advertisement addressed to ladies only. When will the Government interfere to stop this kind of advertising? Thanks to the *Saturday Review*, we believe that some of the daily papers which have been hitherto disgraced by admitting these advertisements are from henceforth to be cleansed. But they still find admission into the low weeklies, and we believe that only Government interference can put a stop to the abominable traffic. If an Act of Parliament be necessary we ought to have one to stop it, especially as Earl de Grey and Ripon acknowledges that persons whose names have been expunged from the Medical Register on account of infamous or disgraceful conduct will be able, if the new Bill passes, to practise Medicine as uninterruptedly as ever.

On the whole, we think the Government have taken a wise course in granting a Select Committee on the subject of compulsory vaccination. Of course no new facts will be elicited, but the committee, if it does its work properly, ought to be successful in dispelling the prejudices against the operation which are being aroused by the present agitation, and as a consequence vaccination will become more popular, and the law will be obeyed more willingly.

THE ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

THE annual election of Fellows into the Council of the College of Surgeons took place on Thursday last, the 7th instant, in the library of the College. Punctually at the appointed time, 2 o'clock, Mr. Edward Cock, the President, took the chair, and was supported by the Vice-Presidents, Mr. Samuel Solly, F.R.S., and Sir William Fergusson, Bart. F.R.S. Several members of the Council were also present—viz., Messrs. Hilton, Quain, Spencer Smith, Hawkins, Hancock, Gay, Turner, South, J. Paget, Busk, Lane, Le G. Clark, Hewett, Birkett, Holden, Erichsen.

There were two vacancies to be filled up, one caused by the resignation of Mr. Joseph Swan, of Tavistock-square, a life member of the Council, who was elected so long ago as 1831, and the other by Mr. Thomas Paget, of Leicester, and whose period of office having terminated, declined to be re-elected. The candidates were, taking them in seniority, Mr. William James Erasmus Wilson, F.R.S., the Professor of Dermatology to the College, of Henrietta-street, Cavendish-square, who was admitted a Member November 25, 1831, and an honorary Fellow December 11, 1843; Mr. Thomas Spencer Wells, Surgeon to the Queen's household, of Upper Grosvenor-street, Member April 26, 1841, honorary Fellow August 26,

1844; Mr. Holmes Coote, Surgeon to St. Bartholomew's Hospital, a College prize essayist, of Margaret-street, Member July 4, 1838, Fellow by examination, December 24, 1844; and Mr. Henry Lee, Surgeon to St. George's Hospital, a Jacksonian prize essayist, of Savile-row, Member February 22, 1839, Fellow by examination December 24, 1844.

The President having explained the objects of the meeting, called upon the Secretary to read those portions of the bylaws and ordinances relating to elections into the Council; this having been done, the President invited the Fellows to begin the process of voting, which was carried out by the voter erasing from the list provided for that purpose the names of the candidates for whom he did not intend to vote, this list he then handed to the President, by whom it was deposited in a box provided for the purpose. It was not until 5 o'clock that the last Fellow had recorded his vote, and the President declared the polling closed; he then opened the box and handed the papers to the Secretary, by whom they were read aloud, and the result taken down by Mr. Stone, and checked by some of the Fellows present. The last paper having been read, the President declared that the choice of the Fellows had fallen on Messrs. William James Erasmus Wilson and Henry Lee, and that the numbers polled by each candidate were as follows, viz.:—

	Votes.	Plumpers
William James Erasmus Wilson .	121	29
Henry Lee	112	19
Holmes Coote	80	21
Thomas Spencer Wells . . .	80	9

The proceedings did not terminate until 5 o'clock. In proof of the great interest taken in the election by provincial Fellows it may be stated that several of them attended from distant places—*e.g.*, Messrs. Wood, Shrewsbury; Bartlett, Ipswich; Beckingsale, Isle of Wight; Brown, Preston; Campbell, Stourbridge; Turner and Southam, Manchester; Hawkins, Cheltenham; De la Garde, Exeter; Cross, Bristol; Hussey, Oxford; Jones, Brackley; Morris, Spalding; Wiblin, Southampton; Nicholls, Chelmsford; C. C. Smith, Bury St. Edmund's; Swaine, Devonport; Thomson, Ross; Richards, Bold; Paget, Leicester. Amongst those who were present and recorded their votes were Bishop McDongal and Dr. Dalrymple, M.P. 234 voted—about 70 less than last year.

In the evening the Fellows met at dinner at the Albion Tavern, under the presidency of Mr. John Hilton, F.R.S. We propose to give an account of the festival next week.

KING'S COLLEGE COMMEMORATION DAY.

On Thursday the Principal and Council of King's College celebrated their commemoration-day, in a manner worthy of that institution. In the morning there was a special service in the chapel, which was largely attended. At two o'clock luncheon was served in the great hall, and at half past three the prizes were distributed by H.R.H. the Duke of Cambridge. Among the visitors were many distinguished members of our Profession, and the Earl of Powis, the Bishop of Lincoln, the Bishop of Gloucester and Bristol, Mr. Beresford Hope, and others not less eminent. The chair at luncheon was occupied by the Principal, the Rev. Dr. Barry, and the few toasts proposed by him were most enthusiatically received. Especially did a reference to his predecessor, the Rev. Dr. Jelf, who was also present, call down hearty applause from his audience. The prize-list we shall publish next week.

VISITATION OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

Judgment, so long deferred, has at length been given in the case of Dr. MacSwiney, to which we have adverted in our impressions of January 15, p. 66, and May 21, p. 556. The Lord Chancellor (Lord O'Hagan) stated that the delay in delivering judgment had arisen as much from the necessity of giving careful consideration to the question of the legality of the system of electing by ballot as from the temporary illness of some members of the court. As to the by-law that one vote in five should exclude, the visitors had no doubt whatever; they were all of opinion that the by-law, so far as it enacted that one vote in five should exclude, was null and void, contrary to the terms of the charter, unauthorised by any power committed to the College, and inconsistent with the due and proper administration of the authority which it legitimately possessed. As to the mode of voting by ballot, they had arrived at a similar conclusion, but not without considerable doubt and hesitation. They thought that voting by ballot was not warranted by any clause of the charter, but, on the contrary, was in contravention of the letter and spirit of some of its provisions. Throughout all, there was no direction that the suffrages should be taken secretly. The 15th clause expressly provided that where the "voices shall be even and equal, the president or vice-president should have and give a casting voice." That voice must be given openly *ex necessitate rei*. They had looked carefully into the authorities bearing on this branch of the case, and had found that, wherever the machinery of the ballot had been adopted it had been authorised in express terms, or was plainly within the scope of the powers conferred by the charter. It was otherwise in the case before them. They therefore declared the by-law void and illegal on this ground also. The result was that they could not declare Dr. MacSwiney to have been duly elected, as they should have been able to do if the voting which gave him the majority had been open. There must be a new election. But, as they conceived that the present appeal was warranted by the circumstances of the case, and would issue to the advantage of the college in the ascertainment of the true principles to guide its future proceedings, they were of opinion that Dr. MacSwiney should have indemnifying costs out of the funds of the college, and that the college, on the other side, should also be paid out of their own funds. In this judgment, the other visitors, the Lord Chief Justice of the Queen's Bench, the Lord Chief Justice of the Common Pleas, and the Lord Chief Baron of the Exchequer, having at some length expressed their opinions on certain points, fully concurred.

DEPUTY LIEUTENANT FOR LEITRIM.

The Lords Justices have been pleased to approve of the appointment of John Brady, Esq., M.P., to be a Deputy Lieutenant for the county of Leitrim.

THE CAMP AT WIMBLEDON.

The question whether mankind did not make a mistake when they abandoned tent or hut life and settled down in aggregations of permanent buildings, is one which the yearly recurring celebration on Wimbledon-common tempts people to treat as still an open one. Tent accommodation is small, and its management sometimes perplexing to the novice. Wet weather is a little troublesome, and supplies are now and then uncertain. But, on the other hand, town life can offer nothing to compare with the luxury of throwing open your tent to the bright fresh morning air, after sleep of a far more wholesome and refreshing quality than town sleep, and of feeling sure, as you fill your lungs with air that is not full of pulverised animal refuse, that you stand on ground not yet invaded by vestries, local boards, and drains. Moreover, a considerable number of the shams of civilised life are left behind, and the hard tyranny of custom is at all events mitigated; while healthy secretions and the necessities of comradeship soften failings of temper, and make bilious men astonished to find that the world in general are not such bad fellows after all. That considerations of this kind have weight

with many dwellers in towns is proved by the steady and increasing demand for tent room in the camp. About 3100 are to be accommodated this year, and all the preparations have been completed in good time by Captains Drake and Maitland, of the Royal Engineers. The chief variation from the sanitary arrangements of previous years consists in the abandonment of Moule's machinery for the dry earth system, and the substitution of hand-labour. Large trenches are dug, over which the latrines are constructed, and dry earth is to be thrown in at frequent intervals with the shovel. It remains to be seen whether this plan, which certainly has the merit of cheapness, will work as satisfactorily as the self-acting machines. If it does not, there is some reason to fear that the latrines, which are placed rather near the camps, and are enclosed with a good deal of woodwork, may become offensive. Macdougall's disinfectant is to be used on a large scale. An attempt is being made to exclude fruit-hawkers from the camp, in order to lessen the amount of diarrhœa due to unripe and decayed fruit, which is recklessly devoured by the men, and, at the same time, to secure a constant supply of fresh fruit, for the goodness of which the contractors are to be responsible. Some such arrangement is evidently required in the interest of the health of the camp. "*Plus occidit gula quam gladius.*" More men are knocked down by plums than by bullets in the Wimbledon campaign. The Medical Staff consists of Drs. Wyatt and Temple, of the Coldstream Guards, and Dr. Mayo, of the Inns of Court Rifles.

THE MUD OF THE SERPENTINE.

An "Ex-Medical Officer of Health" writes to say that he has had an opportunity of examining the mud of the Serpentine, and that it justifies the worst description given of it. It is a black mass, of the consistence of soft butter, composed of the minute *débris* of animal and vegetable matter, flavoured with sewage. It turns brown on exposure to air, from the oxidation of the iron it contains, and if treated with acetic acid, gives off abundance of sulphuretted hydrogen. It is quite clear that it is anything but a stable substance, chemically or physically. It is liable to further decomposition on the one hand, and it is utterly deficient in the cohesion necessary to bear the weight of gravel or anything else that may be laid upon it. We are not surprised at anything Mr. Ayrton says or does, and hence we must not say we are surprised that any sane man, engaged in making a new sound bottom to a public bathing place, should base it upon such a stinking slippery mass of rottenness as the present Serpentine mud.

ACCIDENTS IN MINES.

Nothing is more humiliating to us as an educated people than the great and frequent loss of life in mines. What renders this the more lamentable is the fact, that a very small fraction of this loss is due to unpreventible causes. It has been shown by testimony unimpeachable and strong that the losses of life are due mainly to two causes—1. The absence of the best appliances, and the employment of inefficient managers, which the legislature should require the proprietors to provide against. 2. The culpable neglect and recklessness of the men, which nothing but such an improvement in their condition as would stimulate self-regard can remedy. The "Report on Mines," just issued, affords abundant evidence on these points. That Parliament should and will interfere after the publication of this valuable document cannot be doubted.

THE EPIDEMIC OF SMALL-POX AT PARIS.

We have nothing particular to communicate this week respecting this remarkable epidemic, except to record a slight decline of the number of cases, these amounting to 210 for the week ending July 2, in place of 238 for each of the two preceding weeks. From the same return we learn that in that week there were also 16 deaths from scarlatina, 16 from measles, 20 from typhoid fever, 6 from erysipelas, 31 from bronchitis, 53 from pneumonia, 33 from diarrhœa, 3 from dysentery, 5 from cholera, 4 from diphtheria, 8 from croup, 2 from puerperal affections, and 813 from the various other causes, making a total of 1220 deaths, which is far beyond the average Paris weekly mortality; being, in fact, equal to that of London with a population twice as large.

FROM ABROAD.—THE AMERICAN MEDICAL ASSOCIATION—EPIDERMIC GRAFTING—THE SEWING MACHINE.

The twenty-first meeting of the American Medical Association commenced its session under the presidency of Prof. George Mendenhall, of Cincinnati, Ohio, on May 3, at Washington, it having been resolved at the meeting at New Orleans last year the future meetings should be held alternately at Washington, and the intervening ones at such places as might be agreed upon. At present we have only seen the barest outline of the proceedings, but these seem to have been of a somewhat vigorous and not quite satisfactory character. The attendance was large, and the number of delegates from the South very considerable, so that the Association would seem to be assuming its comprehensive character again. Indeed in its own opinion and that of its well-wishers it would seem to comprehend more members than is desirable, several so-called Medical societies of very questionable character having sent their delegates. They have, however, to pass through the ordeal of a "Committee on Credentials," and when they cannot do this satisfactorily the committee reports their names and obtains their exclusion. Some such power is absolutely necessary where so chaotic condition as that of the Medical Profession in the United States prevails. The Association thus exerts a very beneficial moral effect by the ostracism it decrees against those who undersell their diplomas and pursue unprofessional practices of various kinds. But how such a power may be abused, is seen by a resolution of the Credental Committee, excluding about twenty-five delegates of various Medical Societies and Hospitals, on the ground that they had met coloured Physicians in consultation. Then in the course of the proceedings of the Association, a resolution proposed by Dr. Sullivan "that no distinction of race or colour shall exclude from this Association any person duly accredited to it," was lost by a majority of 46, 106 voting against, and 60 in favour of it. This is very sad. The battle against the prejudices on the score of colour has been a very fierce one; and just when the victory seemed to have been nearly won, when offices of the highest importance are being filled with coloured men, and when an admiring senate listens to an eloquent harangue from the lips of the black successor of one of the arch-protectors of slavery, our own Profession—the liberal Profession *par excellence*—stands forth as the advocate of an oppression which the civilised world had fondly hoped had ceased to disgrace the banner of free America. It is gratifying to learn that many of the really influential members of the Association were not present at the meeting of this year.

At a recent meeting of the Paris Surgical Society, M. Marc Sée related a case of what he termed "epidermic grafting." The patient had his arm caught in some machinery, the soft parts of the anterior and external portions of the forearm and of the elbow being lacerated and crushed, the bones not sustaining any injury. The wound was dressed with pure alcohol, and its surface, after the elimination of the superficial portion which became gangrenous, was covered with granulations. M. Sée then took two small shreds of epidermis detached from the inner side of the arm by means of a lancet, and applied them to a prominent part of the wound. Some days afterwards a new graft was formed by depositing on the surface of the wound epidermic particles obtained by scraping the cutaneous surface of the arm with a lancet. The same

day, M. Reverdin, an *interne*, who is the inventor of this form of grafting, applied to the wound several small epidermic shreds taken from the leg and kept *in situ* by a strip of diachylon. In a day or two these different grafts had taken hold, and soon after the epidermic islets extended and united, so as to produce cicatrisation over a notable portion of the wound. The process of proliferation of epiderm cells replaces that of suppuration at the points invaded by the islets so that the process of healing is considerably expedited.

M. Decaisne, who has paid much attention to this subject, presented a memoir to the Académie de Médecine on the Sewing Machine, which is summed up in these conclusions:—1. The effects on the muscular system differ in nowise from those of all excessive muscular exertion of certain of the limbs, to the exclusion of the others. They are not produced at all in women who work only two or three hours a day, and generally disappear after a while in those who work longer. 2. While admitting that all excessive labour is in women a powerful cause of disturbance of the digestive organs, the sewing machine cannot be accused of especially causing disorders which are met with in sixteen out of twenty women pursuing all varieties of calling in Paris. 3. Certain affections of the respiratory organs—as, for example, dyspnœa—are met with just as frequently in women employing the needle as the sewing machine. 4. The noise and trepidation of the instrument produce slight disorder of the nervous system at first, but the women soon become accustomed to them, and they then produce no injurious effect. 5. A careful inquiry has also convinced him that women employing the sewing machine are, *cæteris paribus*, not more liable than other workwomen to metrorrhagia, abortion, leucorrhœa, or peritonitis, the facts which have been adduced in evidence being simple coincidences, or the results of excessive labour. 6. Supposing even that some of the reproaches to the machine were well founded, they would be of no great importance in face of the constantly increasing employment of steam and other motor powers. 7. As regards those machines still set in motion by women, those with isochronous pedals are preferable to those with alternating pedals. 8. In fine, M. Decaisne is of opinion that the machine, when employed within reasonable limits, and without fatiguing the worker, as is too often done, is not attended with any more inconvenience for the health than working at the needle. In proof of this, he states that he has found it impossible to discover in twenty-eight women, from 18 to 40 years of age, and working from three to four hours a day, any ill effect whatever attributable to the machine.

PARLIAMENTARY.—MEDICAL ACT (1858) AMENDMENT BILL—VACCINATION ACT (1867) AMENDMENT BILL.

On Monday, July 4, in the House of Lords.

On the report of amendments in the Medical Act (1858) Amendment Bill,

The Earl of Lichfield said he felt that an apology was due from him for venturing at this late stage of the Bill to introduce an amendment of considerable importance; but he believed he should be justified in doing so, even at a very short notice, if it should appear that the object of the amendment was to carry out an almost unanimous feeling of the Medical Profession. In asking for such a representation on the Medical Council as his amendment would give them, the Profession were actuated by a desire to promote the interests of the public. It appeared to him that they were indebted to the Profession for the Bill introduced in 1858 and also for the Bill now before their lordships. He had heard several objections made to the direct representation asked for by the Profession. It was said that the Medical body was represented indirectly, if not directly, on the Medical Council. Now, if it had no direct voice in the constitution of the colleges and universities—and it was only necessary to look into the pages of the Medical calendars to see that it had not—it could not have an indirect representation on the Medical Council. It was urged, also, that a direct representation of the Profession on the Council would not be worth the trouble and expense which it would involve, but he believed that the registration of the whole Profession, established by the Act of 1858, rendered the carrying out of the object of his amendment a very easy matter. Another objection was that if eight members were added to the Council the latter would be too large. This was a matter of detail, and the difficulty might be met by linking together some more of the colleges. A petition emanating from some 9000 members of the Profession, a memorial presented to the President of the Council, and meetings held at Oxford, Leeds, Edinburgh, and Dublin, all went to show how strong was the opinion of the Profession in favour of direct representation. Even at a meeting of the General Council held to consider the clauses of this Bill, a resolution was brought forward by one of the nominees of the Government strongly recommending a larger representation, though an indirect representation. A long discussion ensued, and a decided feeling was manifested by the Council in favour of a better representation of the Medical Profession. (Hear, hear.) The clause which he proposed to insert was to the effect that the General Medical Council after the passing of that Act should always contain four representatives elected by the registered members of the Medical Profession residing in England and Wales, two representatives elected by the registered members of the Profession in Scotland, and also two elected by the Profession in Ireland. Although he did not wish to pledge himself as to that being the exact number or proportion of representatives of the Profession who ought to sit in the General Medical Council, yet he thought their lordships should not allow the Bill in its present shape to leave the House without at least giving to that which was really the desire of the Medical Profession generally a fair consideration. The noble earl concluded by moving his clause.

Earl de Grey hoped from the concluding observations of the noble earl, and from the nature of his clause itself, that it was not his intention now to press his amendment on their lordships' adoption, but rather to solicit some discussion upon the subject. It was clear that the clause could not be admitted into the Bill, inasmuch as no machinery was provided for the election of the proposed representatives of the Medical Profession. Although the noble earl might think it an exceedingly easy matter to have persons elected by the universal suffrage of the Medical Profession, yet that could not be done by simply enacting that it should be done, without supplying any machinery for carrying it practically into effect. The noble earl had spoken as if there could be no question that the General Medical Council should be representative of the Medical Profession; but whether a body ought to be representative or not depended very much on the functions it had to discharge. In his view the functions of the General Medical Council might be rather called executive than properly representative. He was aware that many members of the Profession desired to impose on the Council duties which would be more likely to be properly performed by a body largely containing a representative element, but he strongly doubted the advisability of that extension of its functions, and—speaking generally and with due reserve—he did not think it would be expedient to extend the functions of the Council in a greater degree than was proposed under that Bill. With regard to the number of members on the Council, he was inclined to think it was too large rather than not large enough, and that the proposed addition of eight members would be a serious hindrance to the proper transaction of its business, which was not that of a debating society, but should be confined as much as possible to duties of an executive description. He believed, however, that the Council was fully representative of the intelligence of the Medical Profession. It contained not only several most eminent members of the existing corporations, but also six members appointed by the Crown, who might be taken not merely from the Profession, but from the general body of the public, whose interests were concerned in the matter as well as those of the Profession. The principal duty of the Council under the Bill would be to conduct the examinations by which persons were to be admitted to the Medical Profession. It had another duty to perform as regarded those already in the Profession—viz., that of striking Practitioners off the register for proved offences; but that was a function of a strictly judicial character, to be exercised in a strictly judicial spirit, and it hardly formed a ground for giving to the body which exercised it more of a representative character. With these views, while he should be ready to give his very careful consideration to any complete scheme which the noble earl might propose on that subject, he owned it did not appear to him that this was the right moment when such a change should be made, nor did he think it a change from which the

public or the Profession in reality would derive advantage. He, therefore, ventured to suggest that the noble earl should not press his clause on that occasion, but that the Bill, which had a distinct object quite separate from that aimed at by the clause, should be allowed to pass.

The Marquis of Clanricarde regretted that the noble earl the President of the Council had refused his assent to this clause. Notwithstanding the objections taken to it by that noble earl, he thought there ought to be an element representative of the Medical Profession in the Council, and the requisite machinery for accomplishing that object might be easily devised. As it stood, the Bill would not give satisfaction either to the public or to the Profession, and it ought not to be sent down by their lordships in its present shape to the other House. Unless the measure underwent material amendment he should, therefore, feel it his duty to move its rejection on the third reading.

Earl Grey admitted that without the required machinery it would be idle to insert that clause, and that at that late stage it might be difficult to add to the Bill the provisions necessary to give effect to this proposal. He also thought the President of the Council was right in objecting to make the Council too numerous. But he regretted that in effecting what was, he believed, a valuable reform in respect to the Medical Profession, some means had not been devised by which, without rendering the Council too unwieldy, the Medical Profession at large, as distinguished from the Medical corporations, should be enabled to make its voice heard in the deliberations of that body.

The Marquis of Salisbury wished to say a word, lest there might be an appearance of unanimity on this subject which really did not exist. He had no doubt that in a full meeting of their lordships' House, the principle of an elective body, such as that proposed in the amendment, would find but little favour. The principle of having a number of persons elected to represent them by a Profession widely dispersed, having no means of communication or of forming a public opinion except through the medium of newspapers, was something so new—not having been applied to any other body in this country—that he should regard it with great suspicion. He had not heard that any of the more eminent members of the Medical Profession were anxious for the proposed change. His own opinion was that they were content with the constitution of the Medical Council, and that they would look upon this change as tending to introduce political controversy where peace now existed.

Earl de Grey said the noble marquis (the Marquis of Clanricarde) was mistaken in supposing that the number of entrances to the Profession would be increased by the Bill in its present shape, and that the controlling power of the Government was weakened. The fact was under the Bill there would be only a triple door of entrance—namely, the examination of the conjoint Board in the three divisions of the country. All that the 18th clause permitted was that the existing Universities might give their degrees to whom they liked, but such degrees would confer no right to be placed on the registry, and if the holders of them called themselves by these titles for the purpose of practising, they would be liable, under the 21st clause, to very heavy penalties. There would, therefore, be but this triple door instead of the nineteen distinct and separate entrances which now existed. He hoped his noble friend would not pursue the course of opposing the Bill on the third reading, as he had intimated. His noble friend had not objected to the constitution of the Medical Council in committee, where all his objections might have been fully and fairly discussed, and, therefore, he trusted he would not attempt to stop the measure at its last stage.

The Earl of Lichfield said his object had been gained when he heard his noble friend's statement that if the amendment had been brought forward at an earlier stage he would have taken the subject into consideration. He would not therefore press the amendment. As to the remark of the noble Marquis opposite (the Marquis of Salisbury) that the leading members of the Profession were not in favour of the clause, he begged to say that there was a strong feeling on the part of the leading members of the Profession, even those who were nominees of the Government, and sitting in the General Council, that the Council would not exercise the influence which it ought to possess owing to the fact of its not sufficiently representing the Profession at large.

The amendment was then withdrawn, and the report was received.

On Tuesday,

Earl de Grey moved the third reading of the Medical Act (1858) Amendment Bill.

The Marquis of Clanricarde, in moving as an amendment that the Bill be read a third time this day three months, said the measure would not be satisfactory to either the Profession or the public. At a very large meeting of Medical Practitioners recently held in London the Bill in its present shape was condemned, and a petition against it obtained 10,000 signatures. The Bill did not provide for an adequate representation of the Profession on the Medical Council. The Medical Practitioners of the kingdom had shown themselves willing to make sacrifices in respect of the privileges of their own corporations, in order that the public might be protected against incompetent persons practising as Doctors, but the Bill would not give the public that protection. The noble Marquis concluded by moving his amendment.

Earl de Grey said the noble marquis had stated that the Bill in its present shape did not properly protect the public against unauthorised Practitioners of Medicine. Now, the object of the Bill, both as at first introduced and as it now stood, was to prevent any person from coming upon the Medical Register unless he had passed a due examination. It was true that the corporations and the universities had preserved to them under the Bill the barren right of granting degrees, but persons who, having obtained those degrees, attempted to practise Medicine for gain without being upon the register, would render themselves liable to very severe penalties. He, therefore, could not admit that the Bill was altered in any of its cardinal principles, and he trusted that their lordships would not stop its further progress. As to the representation of the Medical Profession generally in the Medical Council, he had nothing to add to what he had said on that point on the previous night.

The amendment was negatived, and the Bill then read the third time and passed.

On Wednesday in the House of Commons, Mr. Candlish withdrew his Vaccination Act (1867) Amendment Bill, informing the House that the Government had consented to appoint a select committee next year.

Mr. Bruce confirmed this statement, explaining that it was not from any doubt as to the value of vaccination that he had made this promise, but in the hope that an inquiry would convince people of the absurdity of their opposition.

Sir M. Beach and Dr. Playfair regretted this determination, which would shake the confidence of the people in the wisdom of vaccination; and the latter went into the statistics of small-pox, to show how beneficially the compulsory law had worked in checking the disease.

Dr. Brady and Colonel Sykes took the same view, while Mr. Hibbert and Mr. D. Dalrymple thought the Government had taken a wise course in the interest of vaccination in granting an inquiry. Mr. Gilpin made some observations in support of the Bill, which was then withdrawn.

THE HUNTERIAN MUSEUM.

The annual report of Mr. Flower, the Conservator of the Royal College of Surgeons, has been just published. The new specimens are as usual arranged during the present week in the theatre of the College for the inspection of the Fellows and Members.

The following extracts from Mr. Flower's report are of interest:—

1. *Pathological Collection.*—The additions are fully equal in number to the average of former years, and include an important specimen showing the effects of ligature of the common carotid and subclavian arteries, four years before death, in the treatment of intrathoracic aneurism, presented by Mr. C. Heath, which has required an unusual amount of time and care on the part of Mr. Moseley for its proper display.

2. *Osteological Collection.*—In the latter part of last year it was intimated, through Dr. Barnard Davis, that the well-known Italian ethnologist, Dr. G. Nicolucci, of Isola di Sora, was about to dispose of his fine collection of ancient and modern Italian and Greek skulls. The President and Council of the Ethnological Society, and several eminent English anatomists, having expressed a favourable opinion as to the value of the collection, and the desirability of its being placed in so accessible a situation as the Museum of the College of Surgeons, the Council at its meeting in February last, resolved to purchase it at the price asked by Dr. Nicolucci—viz., 120*l.* The collection arrived safely in the latter part of May, and is now arranged in the Museum. It consists of 38 ancient Italian and

114 modern Italian crania, 4 ancient Greek and 10 modern Greek crania, in all 166. The locality from which it was obtained is carefully recorded on each specimen. The entire collection of human skulls in the Museum, including those illustrating development, amounts at the present time to 795; the great proportion of them being well authenticated and characteristic examples. Several important additions to the series have been made during the past year by donation. In comparative osteology numerous and valuable specimens have been added, and the articulator has continued to exercise his skill in preparing them for exhibition in the Museum, and for consultation and reference by students. The skeleton of a pike, prepared from a fish which weighed 32 lbs., presented by Mr. Petre, of Westwick, Norwich, at the instance of Mr. Frank Buckland; that of a very fine adult specimen of the recently discovered long-tailed Chinese deer (*Elaphurus davidianus*), presented by the Council of the Zoological Society, and one of the very rare and remarkable South African "Aard Wolf," or *Proteles*, are among the most important additions to this series. An interesting and instructive skeleton of a fœtal Southern right-Whale (*Balæna australis*), from the Cape of Good Hope, which was purchased in 1838, but has (with the exception of the skull) remained in the stores till now, has been articulated and mounted in the Western Museum, by the size of the full-grown Northern representative of the same genus. The series of separate bones mounted in the upright cases in the Eastern Museum has received numerous additions during the year.

3. *Physiological Collection.*—Numerous new specimens have been added to the series, chiefly prepared from animals which have died in the gardens of the Zoological Society.

4. *Teratological Collection.*—The necessity of a revision of the Catalogue of the Collection of Malformations and Monstrosities was alluded to in the last report. The present catalogue was published in the year 1831, and the classification upon which the preparations were then arranged was not founded upon any scientific basis. Since that date so many additions have been made that the catalogue, such as it is, conveys very little idea of the real extent of the collection. It appeared probable that a thorough study of the whole of the specimens now contained in the museum would not only result in placing the collection, as regards classification and description, on a level with the present state of knowledge of this very difficult and often perplexing subject, but might also do something towards advancing that knowledge. The committee therefore adopted the suggestion I made last year of obtaining the assistance of some one who would make a special study of this department, and who would use the large materials which have been for some time accumulating in our museum as the basis of a really scientific work on the subject. The Council of the College in April last, at the recommendation of the committee, entrusted the work to Mr. B. J. Lowne, M.R.C.S., a gentleman whose capability and perseverance have been proved by his elaborate treatise on "The Anatomy of the Blow Fly."

5. *Dermatological Collection.*—The past year has been signalised by the institution of what may be termed an entirely new department of the collection, for such illustrations of diseases of the skin as the museum formerly contained were very limited in number, and were incorporated in the general pathological series. Moreover, the great majority of the morbid appearances presented by the skin cannot be shown in an anatomical museum by actual specimens, but recourse must be had to models and drawings to perpetuate and illustrate their characters, and no collection of such objects had hitherto been formed in the College. When the Professorship of Dermatology was founded and endowed last year by Mr. Erasmus Wilson, it appeared necessary that the means of illustrating the lectures should also be provided; and for this purpose, as well as for the general advancement of the study of the subject, Mr. Wilson has presented to the College an extensive collection of drawings, casts, and models of cutaneous diseases, the greater proportion of the latter having been recently executed with great artistic excellence and fidelity by M. Baretta from patients in the Hôpital St. Louis at Paris. In order to provide space for the exhibition of this collection, and for any further additions that may be made to it, the Council determined upon the erection of a set of rail-cases around the upper gallery of the western museum, on the same plan as those put up in 1863 in the lower gallery. The construction of these cases was entrusted, as on the former occasion, to Mr. Sage, of Gray's-inn-road, and they were completed in October last, at a cost of £280, which will be defrayed out of the proceeds of the endowment of the chair of dermatology, so that the cases as well as the collection must be looked upon as the gift of Mr. Wilson to the College. Since the completion of the cases, Mr. Wilson has been engaged in arranging the preparations in systematic order, and in preparing a descriptive catalogue of the whole collection, the MS. of which is now ready for the press.

Amongst the last contributors to the College Museum are His Grace the Duke of Wellington, Lord Lilford, His Excellency Governor Robinson, Captain Burton and Lieutenant Armit of the Royal Navy, Professors Erasmus Wilson and Bennett, the Rev. H. F. Holland, the Rev. J. Walker, Sir William Fergusson, Bart. Among the other members of the Council who have contributed are Messrs. Busk, Cock, Gay, Birkett, Hilton, Le Gros Clark, Hancock, and Messrs. Adams and Partridge. Public institutions and societies are represented by the Zoological, the India Museum, the Admiralty, the Museum d'Histoire Naturelle de Paris, &c.

THE ANNUAL REPORT OF THE POOR-LAW BOARD.

No. I.

The Dispensary System in the Metropolis.

The twenty-second annual report of the Poor-law Board is issued earlier by some months than its predecessors. The President, if we remember rightly, soon after his accession to office undertook to work an improvement in this particular, and it is satisfactory to find that he has been enabled to keep his promise. It appears that the report would have been issued even sooner but for the delay inseparable from an analysis of certain statistical returns of a kind not previously called for. These returns relate to the numbers and classes of sick poor in England and Wales, and must receive careful examination on a future occasion. Our first duty, however, lies in a consideration of the portion of the report which treats of the steps taken for carrying out that "dispensary system" for which provision was made in the Metropolitan Poor Act, 1867.

That statute empowered boards of guardians in the metropolis to provide Dispensaries for the out-door poor, to appoint the requisite officers, and to supply drugs and Medical and Surgical appliances. For a long time after they had acquired this power, guardians seemed very unwilling to avail themselves of it. Previous annual reports have referred to the question in a tone which showed clearly enough that, notwithstanding th pressure applied by the Poor-law Board, no real steps would be made towards the adoption of the "Dispensary system" in London until further powers should be furnished by Parliament. Accordingly section 14 of 32 and 33 Vict., cap. 63, provides that if, after being required by the Poor-law Board to establish a dispensary, the guardians refuse or neglect to comply, no repayment shall be made from the Metropolitan Common Poor Fund for medicines and Medical officers' salaries. Whether owing to the action of the powerful "screw" furnished by this section, or to a fuller recognition of the benefits to be derived from the adoption of the Dispensary system, certain it is that, in the present report, the board are able to state that "progress has been made in nearly all the unions and parishes in the Metropolitan District in giving effect to the recent legislation for the establishment of dispensaries." The extent of that progress is evidenced by the fact that, at the date when the report was prepared, the following were the only places which had not adopted any definite dispensary scheme, viz.:—Camberwell Parish and Woolwich, Fulham and Lewisham Unions; of these the Parish of Camberwell, as appears from a footnote, prepared plans before the report was issued. For the Woolwich, Fulham, and Lewisham Unions the report tenders this apology, "In all these unions there is a difficulty in applying the system completely in consequence of the existence within them of large and thinly populated areas." It appears to us, however, that there should be no real obstacle to the provision of dispensaries in any union, since but two limiting conditions have been laid down:—

1. That the dispensary should not be more than one mile distant from the dwelling of any patient.

2. That there should be in each dispensary sufficient work to occupy the time of the dispenser.

Within these limits there appears to be scope for such a variety of arrangements as should enable guardians to meet the

circumstances of their own union. The board have, as we learn from the report, considered uniformity in the number of dispensaries in proportion to area and population *only* as a matter of minor importance when compared with the expediency of securing such an apportionment of work in the Medical relief districts as will be in some degree uniform, regard being had to area, population, *and pauperism*.

It must not be inferred that, in all but the three unions above mentioned, the dispensary system is in active work. In the rest of the metropolis, different stages of completeness have been reached. Thus in some unions the system is already in comparatively full operation; in others it is at work in a less complete form; whilst in a third group of unions active efforts are being made to establish dispensaries. The following unions and parishes possess dispensaries in comparatively full operation:

The hamlet of Mile-end Old-town, the Stepney Union, and the parish of Paddington, one dispensary each; the parishes of St. Margaret and St. John, Westminster, one; and the Poplar Union, two dispensaries. All these dispensaries combine the requisites of a waiting-room for patients, a dispensing room, and, what is most essential to the proper working of the system, consulting rooms for the district Medical officers.

The following unions and parishes have dispensaries where medicine is given out to the patients from the prescriptions of the district Medical officers, but no provision is yet made for the attendance of these officers at the dispensary:—

The parish of St. George-in-the-East, the parish of St. Mary, Islington, the parish of St. Luke, now in Holborn Union, one dispensary each; the parishes of St. Giles and St. George, Bloomsbury, one dispensary; the Whitechapel Union, the parish of St. George, Hanover-square, and the St. Saviour's Union, two dispensaries each.

The guardians of the following unions and parishes had, at the date of the report, plans more or less matured, viz.:—The parish of Bethnal-green; the parish of St. Leonard, Shoreditch; the Whitechapel Union; the Hackney Union; the City of London Union; the Holborn Union; the parish of St. John, Hampstead; the parish of St. Pancras; the parish of Marylebone; the Westminster Union; the Strand Union; the parish of Kensington; the parish of St. Luke, Chelsea; the Wandsworth and Clapham Union; the parish of Lambeth; the St. Saviour's Union; the St. Olave's Union; the Greenwich Union.

Of these, Bethnal Green, Whitechapel, Islington, St. Pancras, the Strand, and Lambeth, are in a position to open one or more of their dispensaries very shortly. Shoreditch, Hackney, Hampstead, Kensington, Chelsea, Wandsworth, St. Saviour's, and St. Olave's, have provided one or more sites, whilst, at the date of the report, the rest were still searching for suitable premises.

The report goes at length into the probable result of the adoption of the dispensary system, and states the opinion of the Board that it will not be "to remove the necessity for infirmaries, but to improve the existing arrangements under which Medical relief is administered, by securing for the sick poor a prompter and better supply of all necessary and proper Medicines and Medical appliances, by abolishing the system of requiring the Medical officers themselves to supply the drugs, by enabling those persons who are not confined within doors to obtain Medical advice at fixed hours and within a convenient distance from their own homes, and generally by organising a more efficient control over the whole administration of out-door Medical relief." Comparison is also instituted between the systems of out-door Medical relief in force in England and in Ireland, and details are given as to the results of an inquiry into the dispensary arrangements of the latter country. We propose to notice, at an early date, this and other interesting portions of the report.

(*To be continued.*)

Demonstration of Cutaneous Disease.—On Monday, July 4, a large gathering of the Medical Profession assembled, at the invitation of Mr. Balmanno Squire, at the Royal Polytechnic Institution to witness the trial of a new mode of conveying practical instruction in cutaneous Medicine. The room having been darkened, magnified images of the patients themselves were thrown, considerably larger than life-size, on the spacious screen of the theatre by means of the dissolving views apparatus, so that all the details of the various eruptions were plainly visible, even from the most distant parts of the theatre, and were equally discernible by every member of a large audience. A great number of well-known members of our Profession were present.

AUSTRALIAN WINES.

White and Red Bukkulla, from Messrs. Wyndham, of Dalwood, Branxton, New South Wales.

Red Tintara, from Dr. A. C. Kelly, of Tintara Vineyard, Maclaren-vale, Adelaide, South Australia.

Amongst the circumstances which promise a great and prosperous future to the Australian continent, few are more pleasing than the capacity it is showing of becoming a source of good and pure wine. We have already called attention to the *Auldana*, which embodies the name of Mr. Patrick Auld, one of the earliest and most energetic Australian wine-growers, and is a fragrant and abiding monument of his scientifically guided industry. We may observe by the way that, having, after a long and heavy interval of sickness, tasted some of the Red Auldana which had been resting in our cellar (for, be it observed, these wines have hitherto been tasted under the unavoidable disadvantage of a recent voyage), we were surprised at its brilliant colour, its great and substantial body, and the fine flavour it had developed. The White and Red *Bukkulla* came from the vineyards of Messrs. Wyndham, of Dalwood, Branxton, New South Wales. These wines have gained repeated prizes at the exhibitions of the Agricultural Society at Sydney, and at the Paris Exhibition, 1867, and are now submitted to the judgment of Physicians and other connoisseurs in England. They may be obtained at very moderate prices of Messrs. Cohen, 19, St. Helen's-place, E.C. The white is one of those delicious wines resembling the better kinds of Pouilly; not acid, and certainly not sweet, but round and fruity. The red is a full-bodied wine, which recalls some of the best of the wines grown upon the Rhone, and promises abundance of flavour. The *Tintara* is the result of the labour (we may say the labour of love) of a member of our Profession, Dr. A. C. Kelly, of Maclaren-vale, Adelaide, and may be procured through Messrs. Elder, 7, St. Helen's-place, E.C. We have before us Dr. Kelly's book entitled the "Vine in Australia," published at Melbourne in 1861, a thorough treatise on vine culture, on the choice of vines and of soils, the management of vineyards, and the fermentation of wine, which may be taken as a guarantee that the writer thoroughly understands, and is determined to accomplish, the production of good pure wine. The Tintara Vineyard, which is on a gravelly and ferruginous soil, on hill slopes 600 feet above the sea, was planted in 1863, so that the *primitiæ*, or firstfruits (wine of 1867), of which we have received a sample, good as they are, will no doubt be surpassed in the future. The yield is, like that of the best Bordeaux, small, only 250 gallons per acre, so that quality is not sacrificed to quantity. The wine before us is quite mature, with something of tawny tinge; pre-eminently full-bodied and nutritious, with a port wine flavour. Like the Ofner and Carlowitz, these Australian wines are well adapted for convalescents. They do not belong to the *Claret* group to be sipped *ad libitum*, or made into "cup;" they are neither thin nor sharp, but robust and satisfying. They are good in themselves, and good as varieties of diet for the sick and the healthy.

REVIEWS.

A Treatise on Asiatic Cholera. By C. Macnamara, Surgeon of the Calcutta Ophthalmic Hospital. London: John Churchill and Sons. Calcutta: Thacker, Spink, and Co. Bombay: Thacker, Vining, and Co. 1870.

Having already in a short critique announced our high appreciation of the value of this work, we think it likely that our readers will be interested by a further notice and analysis of its contents.

Having at considerable length noticed the existence of cholera in India from the earliest days, Mr. Macnamara proceeds to observe that the earliest account of the occurrence of cholera in India from the pen of an English Physician (Dr. Paisley) is dated Madras, 1774, but was not brought to light till it appeared in Curtis's works on the "Diseases of India," published in Edinburgh in 1807. Meantime Girdlestone had in 1787 published his work on the "Spasmodic Affections of

India," in which he gives an accurate account of a disease which it is evident he did not recognise as being that which we now designate as cholera, although Dr. Paisley had in 1774 mentioned that disease as being familiar to him, and frequently epidemic among both European and native troops. We can hardly be surprised, therefore, says Mr. Macnamara, at failing to meet with a description of this affection as cholera among the writings of English Physicians in India during the latter part of the eighteenth and beginning of the nineteenth centuries.

From the returns kept in the office of the Bengal Medical Board, and from other records, Mr. Macnamara has adduced ample evidence that it was nothing new for cholera to spread over India in an epidemic form prior to 1817 and 1819, and that, as Mr. Scott observed, although cholera very rarely appears in the sick returns of former times it is by no means to be thence inferred that it did not then exist.

The history given by Mr. Macnamara of the various Indian and European epidemics of cholera between 1817 and 1867, is itself such a concise abstract of the subject, that condensation would interrupt its continuity, and fail to teach the lesson which he desires it to convey. With reference to the epidemic of 1867, and judging from the experience of other outbreaks of the disease in Europe, he remarks that this country is threatened at the present time with the disease, viâ Russia and Turkey, and also from central India and Bombay—a warning which it would be well not to lose sight of, and the truth of which has already to some extent been confirmed by the appearance of the disease at Moscow, Minsk, Kursk, and Smolensk, during December, 1869, and January, 1870, to which we have already directed the attention of our readers in p. 211 of the present volume.

The history of cholera as traced by Mr. Macnamara, clearly shows that in every instance in which the disease has extended beyond the confines of its endemic area, it has originated in an outburst in Lower Bengal or in Madras; also, that as a general rule, cholera has two well defined routes from Bengal, the one its westward course along the basin of the Ganges into Nagode and Saugor, and from thence into the Bombay Presidency, the other, its north west route from Cawnpore (or up the Jumna) to Agra, Muttra, and Delhi, and so over the North Western Provinces into the Punjab. We regret that our space does not admit of further extracts from this extremely valuable part of Mr. Macnamara's work.

The remarks on the geographical distribution of cholera are also full of interest. The characteristics of those countries which are exempt from cholera—Australia, New Zealand, and other islands of the Pacific, the Cape of Good Hope, the west coast of Africa from the Cape, as far northward as Gambia—in which latter station, however, the exemption unfortunately no longer exists—St. Helena, Ascension, the Azores, etc.—are, that they are at a great distance from India, separated from her by a wide expanse of ocean, and having very little communication with her. They are isolated from the home of the disease, and to this we must attribute their immunity from its influence. A desert is the only country in which cholera is unable to establish itself, the absence of moisture in the air and soil of such regions being the influence which shields those who travel over them or dwell in them from cholera. As the Cholera Conference (Constantinople) assert, "A great desert is the best of all obstacles to the propagation of cholera." No meteorological changes, filth, want, or any other similar conditions we know of, are capable of generating the disease *de novo*. Cholera progresses with man along the great high roads upon which he travels, spreading no faster than he moves, and being generated in hot and wet weather. Mr. Macnamara with confidence challenges any one to cite an instance of epidemic cholera occurring beyond the precincts of British India unless connected by a direct chain of cases with an outbreak of the disease in that country. The apparent exception in the case of the ship *Mangles* should be received with caution, as there is good reason for doubting whether the disease in that particular instance was cholera at all.

Mr. Macnamara is a strong advocate of the theory that, in the majority of cases, cholera spreads from one individual to another by means of the cholera *fomes* finding its way into drinking-water, and thus into the intestines of other people. This is merely a repetition of the statement of Dr. Snow in 1849, which was so ruthlessly handled by the London College of Physicians in the report of Drs. Baly and Gull, whose opinions Mr. Macnamara affirms to have done much to retard the progress of our knowledge of cholera to the present time. Mr. Macnamara considers that it is during the vibrionic stage of the decomposition of water, contaminated with choleraic dejecta, that the use of such water is particularly dangerous. This stage of decomposition, unless in water so obviously offensive that it would not be used for drinking purposes, lasts, he says, under the heat of an Indian sun, for not more than three days, and he is confidently of the opinion that such water may be drunk with impunity after this stage is over, and when various forms of ciliated infusoria have replaced the vibriones.

"Not that the vibriones have any influence in inducing cholera in the human body, but they indicate that the organic matter in the water is passing through a certain stage of decomposition, during which process it seems capable of imparting a similar action to the epithelium of the intestinal canal—a conversion of force, as Dr. W. Farr calls it."

In making this statement, Mr. Macnamara says he is "not writing at random or on theoretical grounds, but from actual experience, gained during a constant study of the disease for fifteen consecutive years in Lower Bengal." He details also a typical instance within his own knowledge of water which the most positive evidence showed to have been contaminated by fresh cholera dejecta, and exposed to the heat of the sun during the day, having been partaken of next morning by nineteen persons in perfect health, and under otherwise favourable conditions, and of these five were attacked by cholera at varying intervals within 72 hours, the other fourteen escaping. Confirmation of such a statement by voluntary experiment is, of course, not likely ever to be attained, but the history of the Hurdwar epidemic strongly supports its probability.

This certainly is a point of extreme importance in the etiology of cholera, and if confirmed by other observers, opens out before us a feasible plan for checking the progress of the disease beyond the limits of its endemic area. To effect this object, the rules to be laid down, says Mr. Macnamara, "must be based upon a clear and unqualified faith in its communicability from man to man." "That it extends itself by the instrumentality of the *fomes* of those affected by it, or through articles of clothing, or, in fact, anything which has been exposed to the choleraic dejecta, and to which the organic infecting matter can have attached itself." "Cholera is not transmitted from man to man by contact, but by an organic infecting matter passed with the evacuations of those affected, which must gain access to the intestinal canal of another person before he can be attacked by cholera. In this lies the whole secret of an effectual preventive treatment, for evidently if we can destroy the organic infecting matter the instant it has passed from the patient, cholera cannot spread; or what amounts to the same thing, if we can prevent the infecting matter of the cholera dejecta from reaching the intestines of other persons we prevent them from getting cholera. Our efforts in this direction will constitute the most truly scientific preventive treatment of this fearful disease." Holding such views, Mr. Macnamara strenuously urges the attention of the Government of India to means of preventing the wide-spread distribution of cholera; he says that the time is past "for playing at sanitary commissioners" in India. "It is to the condition of the inhabitants of the Gangetic valley that our attention and efforts must be primarily directed if Asiatic cholera is ever to be effectually controlled by human agency." It is only by our mismanagement or neglect that it should be permitted to extend from the comparatively narrow limits of its permanent source of infection in Lower Bengal.

The frequent importation of cholera into Europe by pilgrims passing up the Red Sea from India renders absolutely necessary the strictest sanitary supervision of these people both before disembarkation on arrival, and re-embarkation on their return to their homes. The suggestions made by Mr. Macnamara in this matter are valuable and practicable. He believes in the efficacy of a strict quarantine as regards pilgrims from India. "Once let infected persons or things slip into Egypt or Persia, and there is but little chance of stopping the advance of the disease to the west and north-west." He, however, does not advocate a "non-discriminating quarantine," and would not think of applying its restrictions to such vessels as the first-class steamers of the Peninsular and Oriental Company, on board which all the necessary preventive measures are, as a matter of course, thoroughly carried out in the case of cholera occurring among the passengers; and he states that no instance of the disease having been introduced into Egypt by these vessels has ever yet been observed. In another place, however, he indicates his suspicion that the ordinary mercantile traffic through the Suez Canal may be the means of the importation of cholera into Egypt, and thence into Europe. With regard to pilgrims, he says that people pursuing antiquated propensities must be treated upon antiquated principles. He would therefore insist upon a vessel carrying pilgrims among whom cholera has occurred remaining in quarantine for six days after

her arrival in the port of disembarkation, strict cleansing of persons and disinfection of clothing being meanwhile carried on; after this the pilgrims might disembark, but should be detained in a lazaretto for six days more, and, if cholera do not appear, they might be permitted to go their ways; but, should any cases break out among them, it would be wise to reship the whole party, and send them back to India.

We have left but little space to notice Mr. Macnamara's system of treatment of cholera. Suffice it to say that he trusts in the efficacy of opium and acids in checking the preliminary diarrhœa, and arresting the disorganising process which he describes as going on in the intestinal epithelium. It is his firm conviction that by stopping the dejections in the early stage of the disease many lives may be saved. He has no confidence whatever in the eliminative treatment. He has since on several occasions tried castor-oil in cholera, but has now finally abandoned it, having never seen any benefit arise from its use.

In the second stage of cholera he would still recommend opium, to be given cautiously and combined with sulphuric acid. The rice-water stools are invariably alkaline, and if possible they must be rendered acid, so as to redden litmus paper. When, under these circumstances they are examined with the microscope, the molecular action is found to have ceased, and it appears reasonable to conclude that the cholera process going on in the intestinal canal has been destroyed. The following is the formula which Mr. Macnamara advises for the administration of acids:—℞ acid. sulph. dil., acid. acetici dil. āā ♏ xv., acid. carbolici gr. ss., aquæ ʒ jss. M. ft. haust., to be given every second or third hour.

In the stage of collapse, acids, and in fact all other remedies, are almost useless. He earnestly protests against the use of brandy or any alcoholic stimulant in the second stage or in collapse, although frequently useful in the first stage; he believes them to be both theoretically and practically the cause of unmitigated evil. He merely mentions brandy, champagne, etc., to condemn their use most emphatically; according to his experience it is almost impossible to hit on a more detrimental plan of treatment than that usually known as the stimulant in this form of disease. He recommends chloroform by inhalation for the relief of the cramps, and says that its full anæsthetic effects may be safely induced.

In his description of the rice-water evacuations, Mr. Macnamara gives a hint as to a means of forming a prognosis, which would be worth bearing in mind. "When first passed the rice-water evacuation soon separates into two portions, the flocculent curdy matter sinking to the bottom of the glass or vessel in which it is contained, leaving a whitish fluid above. This separation of the material into two parts takes place rapidly in many instances, say in from one to three hours, and is evidence of the severity of the disease; for if the more solid matter of the dejecta collects in the lower part of the fluid very speedily it indicates the complete death and disintegration of the organic matter. On the other hand if the separation of the fluid and more solid components of the rice-water product takes places slowly, it is on account of the evacuation containing a considerable quantity of comparatively healthy mucus, and the case so far allows of a more favourable prognosis."

Mr. Macnamara also observes that the fact noticed by Dr. Parkes and others, that there appears to be no direct relation between the severity of the disease and the amount of the alvine discharges, may be explained by the other fact that the intensity of the cholera process depends upon the extent of the epithelium involved. If the whole extent of the intestinal canal be affected, absorption cannot take place; the outpouring of the serum is very rapid, and the patient dies, although he has only passed it may be one or two motions, perhaps none at all. Whereas if only part of the intestinal epithelium be engaged, absorption of fluids swallowed may go on through the remainder, and thus the circulation be maintained, and the patient kept alive, notwithstanding that at the same time copious purging may go on; "in other words, the patient who is much purged is by no means always in the greatest danger, the fact of his being thus constantly purged showing that a considerable amount of healthy epithelium still exists in the intestinal canal, and by its aid he may recover."

The plugging of the intestinal capillaries by the blood rendered viscid by loss of serum, as pointed out by Dr. Pacini, may be considered to have a reparative tendency, as in consequence of it "the water of the tissues begins to pass into the empty blood-vessels, diluting the viscid blood, and enabling it to circulate. Reaction may thus occur without any fluid being swallowed, the water of the tissues supplying the fluid necessary for the re-establishment of the circulation. . . . But if, as we sometimes see, a quantity of blood is passed in the stools just as reaction is setting in, the smaller vessels of the intestines giving way before the pressure of the circulation on the plugs they contain, we find, that the patient, as a general rule, sinks very rapidly."

We have detailed rather fully a few only of the very important points treated with so much ability by Mr. Macnamara in the work before us. We by no means pronounce on the special views of the pathology or treatment of the disease which Mr. Macnamara entertains. Those of our readers, however, who, on our recommendation, may study his book for themselves will find, as we have done, that it is full of thought and research, eminently suggestive, and most valuable as a compendium of all hitherto thought or known about cholera, as well as containing much that is new.

NEW BOOKS, WITH SHORT CRITIQUES.

Transactions of the Edinburgh Obstetrical Society. 1868-69. Edinburgh: Maclachlan and Stewart. Pp. 207.

*** This industrious Society have for the first time ventured on the publication of a volume of *Transactions*, a work which contains several highly meritorious articles. Amongst these we might notice Dr. Matthews Duncan on the "Cephalotribe;" Dr. Menzies on a "Case of Puerperal Mania;" "How long may a Dead Fœtus remain in Utero?" by Dr. Young; a case of "Cephalotripsy," by Dr. Grenser; "Complete Intra-uterine Detachment of the Placenta before Labour," by Dr. Cappie; "Cephalotripsy after Turning," by Dr. Keiller; Dr. Cairns on "Post Partum Hæmorrhage," and the "Scarification of the Gums of Infants;" "Combined Version," by Dr. Milner; cases by Dr. Bell; Dr. L. Aitken on "Pelvie Hæmatocele," etc., etc. Such varied topics speak well for the usefulness of the Society.

The Unity of Medicine; its Corruptions and Divisions by Law Established in England and Wales; their Causes, Effects, and Remedies. By Fred. Davies, M.D., etc. Second Edition: John Churchill and Sons.

*** The second edition of a very learned and useful work. This edition is published at an opportune time, when the question of the unity of the Profession, the "one faculty" system, is nearer trial than it has been in our time. Since the first edition of the work was published, some of the main points urged by the author, such, for instance, as the examination of pharmaceutists, have been adopted. We commend the work to the serious attention of our readers.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

June 23, 1870.

The Birmingham board of guardians have again set at nought the recommendations of the Poor-law Board. The Medical appointments which they made in March last have not been confirmed by the Board, who, before ratifying them, require that the appointments be made permanent, and the establishment of a dispensary. The six suggestions of the Poor-law Board were duly discussed by the Medical committee of the guardians, and Mr. John Clay, the chairman of that committee—a member of the Profession—proposed that the wishes of the Poor-law Board be complied with, and that a dispensary be instituted. Mr. Clay's resolution was lost, and the committee resolved not to disturb the existing arrangements for out-door Medical relief. At the general board of guardians, the report of the Medical committee having been received, it was again moved by Mr. Warrilow, also a member of the Profession, that a dispensary be established. A warm discussion ensued, and, after a long debate, the views of the committee were adopted by a large majority, consequently the scheme of a dispensary for paupers here is at present purely prospective. It has been questioned whether Mr. Clay was so warm an espouser of the interests of the parochial Medical officers as his position would lead one to expect. The following resolutions, however, which he framed, and to which he was wedded, will at once set at rest all doubts as to his good intentions and honesty of purpose.

"1. That one dispensary be established in the centre of the

parish for the purpose of supplying the out-door sick poor with medicines, from the prescriptions of the district Medical officers.

"2. That two of the district Medical officers shall attend at such dispensary daily (Sundays excepted), at such hours and under such regulations as the board may determine, for the purpose of affording Medical relief to any poor person applying for the same, and presenting an order as required by the regulations of the Poor-law Board.

"3. That a qualified apothecary be appointed as a dispenser at a salary of £90 per annum, with coals, gas, and furnished apartments at the dispensary.

"4. That the district Medical officers be relieved from attending midwifery cases, except those of a difficult character, and that competent midwives be employed by the guardians, but under the superintendence of the district Medical officers.

"5. That the salaries of the district Medical officers remain at the present amount—viz., £200 per annum, with £5 per annum in lieu of lunacy fees.

"6. That the district Medical officers be requested to furnish the guardians with a written undertaking empowering the board to vary the conditions of the contract, so far as relates to the supplying of medicines for the out-door sick poor and the relief from attending midwifery cases.

"7. That these regulations shall take effect on and after September 30, 1870.

"8. That the out-door Medical Relief Committee be instructed to determine the arrangements necessary for the efficient management of the dispensary and to report thereon to the board.

"9. That this board be requested to appoint a deputation for the purpose of waiting upon the President of the Poor-law Board, and submitting to him the suggestions of the guardians in respect to the proper working of the Dispensary."

Mr. Clay has made the dispensary question a favourite study, and he is therefore greatly disappointed at being unable to carry out his views, which accord with the wishes of the department at Whitehall, and which sooner or later must be embodied to meet the requirements of an enlightened legislation for the pressing wants of the sick poor.

The Birmingham Medical Benevolent Society, which is, perhaps, not so well known away from here as it should be, is one of our most useful societies for dispensing relief to the needy Practitioners and their families in this district. The Society has lately had its laws revised, and such alterations made in its constitution as would, it was thought, animate it with new life. For some years past its directors have been quite a snug family party, and the meetings held at each other's houses have been followed by that never-failing source of satisfaction—by dinners, which have a mysterious way of knitting people together. By many it was felt that this system needed revision—and directors elected irrespective of their qualifications as estimated by *recherché* repasts. Last year, after a brisk struggle, an improved state of things was effected, and at the annual meeting the other day four new directors representing advanced ideas were elected, not to mention a president of the new *régime*. This infusion of fresh blood, it is felt, will give a prosperous career to a society which ought to number among its members every Practitioner in the midlands.

Rumour saith that it is contemplated at our chief Hospital to enlarge the staff. It is said that the General Hospital will soon have assistant-officers added for the purpose of doing the out-patient work. Two Assistant-Surgeons and two Assistant-Physicians are mentioned. A valuable addition, and long wanted to the Medical staff, is the appointment of ophthalmic and obstetric officers.

The Medical School at the Queen's College is doing very well, and it is said this year that the fees for Hospital practice are to be altered. The Queen's Hospital has always undersold the General Hospital, the fees at present being, at the General 37 guineas, at the Queen's 25 guineas. In the face of a single Medical school, this may be considered an unfair and degrading competition, and this year arrangements are in contemplation to abolish it by equalising the Hospital fees at 30 guineas.

The "club" question still keeps very quiet, and is, to personify it, an "humble individual." It may be mentioned, however, as indicating the present state of it, that a document well and influentially signed for presentation to the club committee, has recently been got up, and which asks for the maximum sum to be reduced to 4s.!

At Queen's College the Medical Tutorship and Demonstratorship of Anatomy are vacant by the resignation of Mr. James Hinds, who goes into practice. Mr. Hinds has held the appointment many years, and was an excellent teacher, and very popular with the students.

A student of Queen's College fell the victim to an attack of scarlatina maligna last Saturday, and was buried yesterday. He was followed to the grave at Edgbaston Church by his fellow students in their academic costumes.

The local branch of the British Medical Association held its annual meeting last week, and the gathering was worthy of the Branch, which is now the largest connected with the parent association. The President for the year, Mr. Thos. Underhill, of Great Bridge, delivered the address, which treated of Medical education, the apprenticeship system, the club question, and Hospitalism. On this last point he declared himself a disciple of Sir J. Simpson. The proceedings passed off very weak, in spite of rather a sharp discussion during the early part of the proceedings, raised by some fault-finding on the part of the "reformers." Some speeches have come to be looked for and greeted every year in much the same manner as the inevitable dog which appears on the Derby course at Epsom just at the most critical juncture. I may mention that the Branch not only holds seven or eight meetings annually, but has connected with it a clinical and pathological section, which does an equal amount of work. This section indicates the method by which the Branch hopes one day to gather together under its wing all the societies of the district, so as to give it, by means of a common organisation, greater strength and stability, and make one great and useful society—an idea which the proposed Academy of Medicine is now trying to effect in London.

Dr. Evans's Testimonial Fund amounts to over 1200 guineas. The surplus, after the payment of all expenses, will be about 1000 guineas, and this I hear Dr. Evans, with nobleness of purpose, intends to devote to some object connected with, and for the benefit of, the Medical Profession.

LIVERPOOL.

June 21.

In the large infirmary of our very large workhouse, cases of the greatest Medical and Surgical interest at times occur. The following record, for which I am indebted to the kindness of the Surgeon, Mr. J. H. Barnes, may be interesting. Liverpool was one of the earliest towns in which excision of joints was practised, and the operation has, since the days of Park, always found favour in the eyes of its Surgeons. The cases are all those operated on from July, 1868, to the present time.

Julia H., aged 26. Knee has been enlarged for some months, causing contraction. Origin of the mischief supposed to be rheumatic. July 8, 1868.—Excision by semicircular incision. No sleep for the first two nights, though thirty and sixty drops of tinctura opii were given. There was slight vomiting, and the pulse became quick and intermitting. On the third day a somewhat offensive discharge escaped from the wound, which had swollen very much. Vomiting and hiccup supervened. The pulse rose to 126. Carbolic-acid lotions, poultices, and the internal administration of sedatives and stimulants subdued these symptoms. By the eighth day she was able to eat fish, and subsequently improved continuously, having in the end a very serviceable limb.

Ellen S., aged 34. Had an injury to the elbow when 15 years old, which left the joint anchylosed and useless. Excision was performed on July 1, 1868. In this case there was scarcely a bad symptom, a slight vomiting, easily controlled by ice and bismuth, alone occurring to disturb the progress towards cure. A very useful joint was obtained.

Grace R., aged 4. Fracture just above the condyles of the humerus, with dislocation of radius and ulna backwards, led to disease of the joint, which, after some weeks, it was thought well to treat by excision. The operation was performed on April 29, 1869. Uncontrollable vomiting and diarrhœa shortly supervened, and the patient died on the fourth day.

George J., aged 6. An injury to the hip, some time previously, had caused disease of the joint, for which excision was performed on April 8, 1869. The operation was well recovered from. On the sixth day he is reported in the Infirmary case book to be "doing well; no bad symptoms." He continued in tolerable health for a long time—the exact period is not mentioned—then betrayed symptoms of phthisis, of which he eventually died.

Catherine F., aged 26, had a dislocation of the radius and ulna backwards, with probable fracture of one or both bones, six months before admission, with no use in the joint. Excision was performed on March 18, 1869, and the arm placed on a

straight splint, which on the third day was replaced by an angular one. By the eighth day she felt very well, having had no troublesome symptoms since the operation, and was soon about with a very useful limb.

Mary O., aged 21, had the elbow excised for strumous disease on September 9, 1868, and quickly recovered with a very serviceable arm.

The following case, under the care of the same Surgeon, shows what can be done when the patient has strength of will to carry out to the full instructions laid down for him:—

G. M., aged 33, a working engineer, used to laborious exertion, necessitating great strain on the legs to maintain his footing. Six weeks before applying for advice, felt a sudden pain in the knee-joint, and a cracking behind it, as of the tendons slipping over each other. No notice was taken of this for a week, until, finding the sensation continue and increase, he sought advice. On examination, a hard round tumour about the size of a hen's egg was detected at the inner side of the popliteal space, just beneath the tendons of the semitendinosus and semimembranosus muscles. It was but little affected by pressure, and did not pulsate. On the application of the stethoscope, however, a distinct whiffing bruit was heard. The patient, though a man of intelligence, did not understand the nature of his ailment, but so soon as this was explained to him, readily acquiesced in the plan of treatment suggested. On Saturday, April 2, 1870, his leg was flexed on the thigh, and the thigh on the abdomen, and both secured firmly in those positions. At night pain, at first slight, but gradually increasing until it obtained the utmost severity, supervened in the joint. A fourth of a grain of morphia was given twice a day, and yet there was no sleep for four days and nights. The patient spent the whole of this time seated in a chair with his foot resting on a stool, having the leg slightly everted. There was much swelling in both feet. On April 12 the leg was undone and examined. The tumour was then found to be of the same size, and perfectly free from any bruit. The leg was then maintained for two more days in a state of modified double flexion, and then released. On April 15 it was released, after which the swelling gradually but very steadily declined day by day, until by May 9 it was scarcely perceptible. At that date the patient was taking daily walking exercise without the slightest inconvenience; and two weeks after not the slightest trace of swelling or hardness was perceptible in the popliteal space, and the patient was performing his ordinary laborious duties.

As a method of administering cod-liver oil to those who are unable to take it in its undisguised condition, few plans will succeed so well, I imagine, as that of the cod-liver oil jelly, prepared by Mr. James Agnew, a chemist of this town. I have refrained from alluding to this preparation hitherto, from a desire to see the result of keeping. Finding, however, that a specimen which I have had in my possession for many weeks has lost none of its palatableness, though a slight smell of the oil has become developed during that time; and having good accounts of its employment by different Medical men as well as myself, I think it but right to mention this. The preparation has the appearance of a translucent yellow jelly, from a specimen of which, Mr. Brown, chemical lecturer to the Royal Infirmary School of Medicine, has extracted 73 per cent. of oil. Mr. Agnew claims to using 75 per cent. in the manufacture. The jelly is so palatable, that few, if any, I imagine, would refuse to take it.

GENERAL CORRESPONDENCE.

"THE VALUE OF AN OLD REMEDY."

Letter from Dr. Wilmot.

[To the Editor of the Medical Times and Gazette.]

Sir,—With a feeling very closely allied to indignation I read your article last Saturday on a case of venesection in threatened apoplexy. That such a case should be considered exceptional and worthy of record is the severest censure on modern practice that could be passed on a decaying art. The final sentence of your own article is a sentence of condemnation:—"A century ago such results of treatment were commonplace, now they are exceptional. The said result being a cure. Venesection "an almost discarded remedy!" Yes; it has come to this. The *infiniment petits* of the present day, with their thermometers and microscopes, their sphygmographs and zigzags, are so occupied with petty details that they overlook the large and general views which lead to the cure of maladies. How many wretches have been suffered to die—how many have been condemned to a life of chronic sickness and suffering for want of the timely and judicious adoption of this discarded remedy! Because venesection was at one time indiscriminately resorted to by routine Practitioners; because it was sometimes carried too far, or had recourse to at an improper moment, are we therefore justified in discarding it altogether?

I will not now inquire who is answerable for the prevailing notion that to withdraw a drop of blood is to withdraw the life; but unquestionably that notion has laid hold of the minds, not only of the non-Medical public, but of the educated mass of modern Medical Practitioners, until it has become almost a religious dogma of belief.

For my part, I maintain, and always have maintained, that in certain cases of acute inflammation, especially of a true serous membrane, as pleura, peritoneum, arachnoid; that in those cases of congestion, especially of lung and brain, where the loaded heart is making vain struggles to drive the blood forward, where the nerve-power is itself suspended by pressure from within, and where non-interference ends in rupture of a vessel and disintegration of tissue—venesection, free, bold venesection, is positively demanded as the surest, most rapid means towards successful treatment.

We all know that there are cases which prove fatal, whether bleeding has been resorted to or not; but the same may be said of every other remedial agent, whether Medical or Surgical. Is that a reason why we should remain passive and leave a patient to his fate through dread of being charged by prejudiced bystanders with the death in case of a fatal result?

If in former years I have had to contend against bleeding in certain cases where I have felt it to be injudicious, for many years my battles have been fought on the other side, and sometimes most obstinately contested, with risk to my own personal reputation, against an opposition lay, clerical, and Medical; and I can safely affirm that although I have seen many a case lost or maimed for life for want of timely abstraction of blood, I never have seen a man bled to death with three exceptions. One was that of a man who was guillotined on the Place de Grève; the second was a man who was beheaded with the sword at Meissen, in Saxony; and the third was when Dupuytren tied the axillary artery for aneurism of the subclavian in 1829. The patient was bled seven times before the operation and five times after, and lost six ounces from the wound. He lived nine days. This most dexterous operator, admirable for his diagnosis and for the clear and logical manner in which he worked out his ideas to his clinical class, was scarcely equal to his great reputation in the after treatment of his operations.(a)

Let me conclude this somewhat vituperative epistle by quoting a short lecture which was once given me when a tyro working at the alphabet of our Profession by a very old Practitioner of considerable local repute, a lecture which remained engraven on my memory. "My young friend, there is no more simple operation than that of bleeding, and none more effectual when needed; but to be able to determine whether to bleed or not, requires the experience of a lifetime."

I am, &c. J. B. Wilmot, M.D.

Tunbridge Wells, July 5.

Letter from Dr. John E. Smyth.

[To the Editor of the Medical Times and Gazette.]

Sir,—The article in your excellent journal with the above title has recalled to my mind a somewhat similar case. Some time ago a Medical friend had been in attendance on a boy, aged 13 years—the only child of very respectable parents—for an attack of scarlatina followed by some anasarca with albuminous urine. All at once, one evening, he was seized with a very severe fit of convulsions, which, of course, caused considerable alarm. A second opinion being thought advisable, my aid was hastily requested, and, as every remedy usually employed in such cases had been tried for some hours to no purpose, venesection was proposed by me, very readily agreed upon, and promptly carried out ad ℥viij. The blood, at first quite black, became gradually much redder as it flowed from the arm, a decided impression was made on the pulse, and a

(a) I do not know whether this case was ever published in detail; probably it was. I have notes of it, for I was then working hard in Paris. The operation made a great sensation, and I remember that amongst several Surgeons from distant parts Mr. Arnott came expressly from England.

correspondingly marked abatement of all the alarming symptoms followed. This boy recovered perfectly well without any recurrence of the fit, although his case appeared at first sight almost if not quite hopeless. It may be interesting to mention that the blood abstracted, on chemical analysis, was found by me to contain distinctly visible crystals of the uitrate of urea, thus showing the advantage of phlebotomy in not only relieving the renal and cerebral hyperæmia, but in serving to eliminate directly out of the system an excess of poisonous material—the product of disintegrated tissue—giving rise to all the toxical effects of uræmia. The details above recorded also prove the "value of an old remedy," perhaps too much neglected at the present day.

I am, &c. JOHN E. SMYTH, M.D.

China-terrace, 60, Kennington-road, July 4.

THE INFLUENCE OF THE RELATIVE MAGNITUDE OF THE ORIFICES OF THE HEART ON THE CIRCULATION.

LETTER FROM DR. HERBERT DAVIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am much indebted to Dr. R. Douglas Powell for his friendly notice in a recent number of your journal of my paper on the above subject read at the Royal Society; but with reference to the words "unequal distances" quoted by him from my essay, I cannot admit that either the sentence in which that expression occurs, or any passage in the communication, allows the inference to be drawn that "a given quantity (three ounces) passes from the left ventricle to the right auricle *in the same time* in which an equal quantity passes from the right ventricle to the left auricle." The great disproportion between the masses of blood respectively contained in the systemic and pulmonic systems, and the necessity that equal volumes of blood must be admitted synchronously into, and subsequently expelled synchronously from, the two ventricles, manifestly prove that unequal times must be required for the transmission to their respective auricles of synchronously expelled ventricular charges. The "unequal distances" between the right ventricle and left auricle and between the left ventricle and right auricle are evidently important factors in the calculation of the resistances which the ventricles have to surmount, inasmuch as "the unequal distances" mean unequal lengths of path for the ventricular charges to traverse, unequal masses of blood to be moved, unequal amounts of friction and therefore of resistance to be overcome. It is clear, then, that, under such circumstances, a charge from the left ventricle will take a much longer period of time to travel to the right auricle than an equal amount of blood discharged from the right ventricle will require to reach the left auricle, and I think there is nothing said in my paper which leads to a different conclusion. Dr. Powell has very clearly illustrated the point. The "longer path" to which he refers obviously entails the greater resistance to, and the necessarily greater power of, the left as compared with that of the right ventricle. But as the two ventricles must commence and finish their contraction in exactly the same time, and expel during that time equal quantities of blood, it is evident that the areas of the outlets (aortic and pulmonic) must be inversely as the velocities of the issuing volumes. Synchronous action of the ventricles is absolutely essential to the working of the pulmonic and aortic systems, and can be only secured by the arrangement of the areas of the outlets in the manner above described. The resistances to be overcome in the two circulations determine the forces to be exerted by the two ventricles in systole, while the synchronous expulsion of equal quantities of those from the two chambers determines the velocities of the issuing currents, and consequently the relative magnitude of the areas of the outlets which those currents have to traverse.

I am, &c.

Finsbury-square. HERBERT DAVIES.

LARGE SCROTAL HERNIA REDUCED, BUT STRANGULATED BY THE MESENTERY.

LETTER FROM MR. S. MESSENGER BRADLEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—The mistakes that a man makes are often more valuable experiences to him than his most brilliant successes, and for a long series of years stand out as clear and distinct landmarks, guarding him from any danger of repeating his error. Of course we must admit that it is "bad for the coo" that comes in the way of the blundering train of thought, but it is none the less valuable experience for the driver. It is because there seems to me a lesson to be learnt that I briefly record the following sad case of Surgical mistake:—

On June 8 I was requested by a Surgeon to see a case of strangulated hernia with him. On our arrival I found the patient, a powerful man of 40, suffering from a scrotal hernia as big as a small water melon, and which, he stated, had been down for twelve hours. The man had been ruptured for fourteen years, but had always been able to reduce the hernia until the preceding night, when it came down very suddenly, while he was lifting a heavy weight, and was at once accompanied by a good deal of pain. He had vomited three or four times, but not stercoraceously. The tumour was not very tense, and there was slight impulse on coughing. The Surgeon whom I accompanied commenced manipulating it, and from the gurgling and the general feel of the tumour thought that it could be returned. He consequently persevered with the taxis for about a quarter of an hour, using very moderate force, the tumour gradually diminishing the while, with much gurgling, and finally entirely disappeared. On coughing it did not return. The man said he felt slight pain, when he was questioned, but did not complain.

The following morning I received a message from the Surgeon, who wrote from the patient's house, requesting me to see the man at once. On my arrival he was dead. His wife told us that he had had a good day, but complained from time to time of slight pain. He had remained at home, and went early to bed. He awoke her at five, saying that he had terrible pain in his bowels, and remained tossing about till eight o'clock, when he sent for his Doctor. At half-past eight he died. He had not vomited up to the last minute of life, when he threw up some semi-digested food.

At a post-mortem examination we found that the hernia consisted of about two feet of small intestine, which had forced its way through a rent in the mesentery. The entire mass had been returned into the abdominal cavity, the constriction remaining unreduced. The strangled gut was black, but shiny, and the abdominal cavity contained about a pint of blood and serum. The gradual way in which this hernia was returned, accompanied as it was by the sound of gurgling, and the almost entire absence of symptoms of strangulation following the operation, render the case instructive, and point to the absolute necessity of carefully watching cases of hernia for some time after the taxis has apparently been successfully employed.

I am, &c.

Manchester, June. S. MESSENGER BRADLEY, F.R.C.S.

OBITUARY.

THE LATE SIR JAMES CLARK, BART., K.C.B.,

Physician in Ordinary to Her Majesty.

THE whole Medical Profession, and outside of it a wide circle, will have heard with deep regret of the death of Sir James Clark. The position he had held for so long as her Majesty's Physician made his name known to the public, his works on climate and consumption made him esteemed by scientific men, and his many patients thought of him with deep regard and affection. But beyond or behind all these there were some who knew that this man, so quiet and unobtrusive in his manner, so simple and modest in his pretensions, exerted an influence for good, wider and destined to be more lasting, than any Physician of his time.

He died (aged 81 years) on June 29 at the royal residence at Bagshot-park, which the Queen had lent him for his life, and which he had inhabited for nearly ten years.

In 1860 he had retired from the active duties of his Profession, but still continued to perform some of his Court duties, and to aid his successor in his responsible office. After a long life of constant activity he had the rare fortune not only to retain unimpaired his mental faculties to the last, but his interest in people and events. The isolation and shadow which often sadden the old age which has outlived contemporaries and interests were not his. He had ever consulted the well-being and fortunes of his fellow-men more than his own, and this habit brought its own reward, when in the evening of his days he still cherished warm affections and retained warm friends, and still felt happiness in being useful.

It must always be interesting to know how a man starting

in life with only the advantage which Scotland gives to so many of her sons—a good education—ends with being the leader in his Profession, the trusted friend of the Sovereign, and the associate of the foremost men of the time. In the case of Sir James Clark the explanation was easy. It was not the accident of birth, nor the chances of interest, nor the caprices of fortune, which aided him. It was not the possession of the common qualities of activity and self-confidence which shoulder contemporaries out of the path. When any one first became acquainted with Sir James Clark some surprise might be felt that he should have won his way to such a position. A retiring, modest man, accustomed to estimate others above himself, and disliking display and notoriety, he was at first sight the very reverse of what is considered the successful man of the world. But the surprise soon ceased when his real character became known, and when below the surface of reserve and shyness was discovered a man singularly gifted with judgment, accuracy of view, and truthfulness, a man to be relied on, a man in whose good faith the most complete trust could be put, a very rock of integrity, which no floods could move and no insidious current undermine. At the end of his long life, when he had seen both the great things and the base things of this world, when few events could surprise him and few shades of human conduct were unknown, he still preserved his simplicity of heart, and it may be truly said that he united the wisdom of the serpent and the harmlessness of the dove.

Sir James Clark was born in December, 1788, and received his early education at Fordyce and Aberdeen. He was intended to be a lawyer, but disliked it so much that the choice was given him of the church or Medicine. He chose the latter profession, and proceeded to Edinburgh, where he passed the College of Surgeons in 1809. The great war then raging attracted him to the navy, and he served as Assistant-Surgeon and Surgeon until 1815, when he was put on half-pay. During his naval service he was twice wrecked. One of his contemporaries, both at Aberdeen and in the navy, was John Forbes, for whom he had the strongest friendship, and whose future career he much influenced. In company with Forbes he spent the winters of 1815-16 and 1816-17 at Edinburgh, studying and attending the Infirmary. He took the degree of M.D. in 1817. In 1818 he went to Rome, where he remained for seven years, and where the basis of his future fortune was laid. At that time the English aristocracy were the chief visitors at Rome, and in that small and intimate society a man's real character soon became known. He made not merely professional connexions, but warm friends, and he was so strongly urged to settle in London that he decided on this important step in 1826, and removed to London. He had previously become a member of the College of Physicians of London. At that time the chances of a Scotch Physician attaining a good position were far less than at present. The Fellowship to the College of Physicians was shut against all but graduates of Oxford and Cambridge, and the influence of the College was systematically exerted in favour of its own Fellows and against outsiders. It may be noticed, indeed, by any one who takes up the list of the College of Physicians, that Sir James Clark's name remained to the last among the members, and not among the Fellows. The reason illustrates his character. In order to alter the unjust monopoly of the two English universities, an association of Scotch graduates was formed which succeeded in inducing the College to adopt a more liberal course. Several of the prominent members of this association, among whom was Sir James Clark, had, in order to obviate all suspicion of self-interest, stated that if successful they would themselves not ask for or receive the Fellowship. In spite of frequent solicitations, Sir James Clark considered himself bound by this promise, and would never allow his name to be proposed as a Fellow.

It was very much to the astonishment of the leading Physicians in London when, in 1834, the announcement was made that the Duchess of Kent had appointed Dr. James Clark her Physician. This involved the Medical care of the Princess Victoria, on whom the eyes of the nation were fixed with more than ordinary anxiety. That a man known chiefly only by a work on climate, and who was unconnected with any Hospital or public institution except a small dispensary, should be chosen, created no little ferment and jealousy. But the Duchess of Kent knew what she was about, and she had learnt from her brother, Prince Leopold, afterwards King of the Belgians, that in Dr. Clark she would find a man with all the necessary qualities. Prince Leopold, who was one of the wisest men in Europe and most discriminating in his judgment of character, had discovered not only that James Clark was a good Physician in the common sense of the word, but that he was a man of enlarged views, profoundly impressed with the necessity of preventing as well as of curing disease, and skilled in the art of strengthening and maturing the body. In fact when we read Sir James Clark's work on Climate, and on Consumption, and the essays published in the "Cyclopœdia of Medicine," we cannot but be impressed by the sound hygienic views he everywhere brings forward. He was in this respect in advance of his time, and owed much of his success in practice to this knowledge. But something more than even this was wanted. For such a post and for the office he afterwards held on her Majesty's accession, a man was required who was not only Professionally learned, but discreet and conscientious, and no time-server and no self-seeker. The choice of the Duchess of Kent had happily fallen on the man best qualified in all these respects in the entire kingdom. Her trust in Sir James Clark was unbounded, and although an untoward event afterwards dissolved their official relation, she regarded him with warm friendship, and her deathbed was soothed by his devotedness and skill.

In 1837 he was appointed Physician in Ordinary to the Queen, and subsequently received a similar appointment to Prince Albert, and from that time until 1860 he devoted himself to do his part in that household so happy and so united, which seemed to the nation the very type of the highest and purest family life. For his office Sir James Clark was peculiarly fitted both by nature and culture. No sovereign ever had a servant so perfectly true in all ways, so thoroughly free from any wish to use his position for his own advantage or that of his friends; so careful not to busy himself beyond his sphere; so anxious to exert what influence he could properly use for the public good; so disinterested, and, in one word, so single-minded. A more brilliant man might have been found, but not a wiser one.

Gradually the influence of his character and his position at Court insured for him a power beyond that commonly exerted by members of our Profession. In matters of the State connected with Medicine—and these frequently arise—he was almost always consulted. In the midst of his regular Court duties, and of his large practice, he found time to enter on educational questions and to aid in, and sometimes to guide, important scientific movements. He soon had a large practice, which was, however, lessened for the time by the unhappy story of Lady Flora Hastings, which those who lived thirty years ago must remember well. When the public learnt that a lady of high birth and, as it was afterwards proved, of spotless character had been subjected to the accusation which most degrades a woman, there was a universal cry for the punishment of her detractors. The authors of the report were never known, or at least were not named, but the public indignation fell on Sir James Clark, who was thought to have given currency to the report, by sharing suspicions which his Medical knowledge should have dissipated. The exact facts will probably never be known, but it is certain that Sir James Clark did his best to prevent the harsh measures which brought the affair out of the gossip of coteries into public discussion, and that, if his advice had been followed, the slander would have been nipped in the bud. As it was he bore the blame which should have fallen on other shoulders, and suffered acutely a reproach which, had he deemed it right, he could have removed by a word. This affair was one of the great troubles of his life, and it cast a shadow over many years of a career otherwise most fortunate.

What may be termed the other great Professional trouble of his life was the death of the Prince Consort. That event, which shook the nation, was a most grievous trial to him on personal and public grounds. Personally his relations with the Prince had been most satisfactory; he had the highest opinion of the Prince's judgment and relied greatly upon him. On public grounds he regretted most deeply the removal of one who had mastered both our domestic and our foreign polity so completely that Sir James was accustomed to say no home or foreign Minister was better, and many were not so well informed. The one thing which softened the blow to him was the way in which the Queen bore this great affliction, and the confidence she expressed that all had been done that art could do by himself and Sir William Jenner. The presence and assistance of his younger colleague and the advice of Sir Thomas Watson were also, he used to say, of the greatest use to him.

Probably that period of his life was the darkest of all. While the Prince was dying, Lady Clark was also dangerously ill, and a divided duty and a double grief pressed most heavily upon him. Happily Lady Clark rallied for a time, but a few months afterwards he lost her, and one of the most happy unions which can be imagined came to an end.

Then came a period of what was meant to be rest, but which was really only a change of activity. He never knew what rest was, but was constantly occupied in public duty of some kind. Only two years before his death he went thoroughly over the whole subject of the treatment of insanity in preparation for the biography of Conolly, which he wrote in memory of an old friend, and to illustrate the history of what he thought one of the greatest improvements in the treatment of disease.

As a Physician, Sir James Clark was chiefly distinguished by the extreme common sense and moderation of his views. It is refreshing now to read his works with their clear style, their information always to the point, and their practical tendencies. They were like himself, remarkably free from pretension, but really full of knowledge and wisdom. But his works cannot show some of the qualities which made him so great a Physician; they cannot show his inexhaustible patience, his gentleness, and his sympathy. His patients' cause became his own, and he entered into every consideration with an interest which never failed, because it was heartfelt. Never was a man more fitted for his Profession, and never have the duties of a Profession been more thoroughly and conscientiously discharged.

In these few lines we have found it impossible to do full justice to a character of singular excellence and to a career of uncommon usefulness. But we have said enough to show that in Sir James Clark's elevation there was nothing fortuitous. It was the simple result of excellent abilities backed by a perfection of moral qualities which is seldom seen. It is sufficient memorial to say that he played a great part with true success. We have been told that "the evil which men do lives after them; the good is oft interred with their bones." But he did no evil, and the good which he did will live. The judgment of men is fallible, and often worthless, and no one should regard it too highly. But we believe our opinion for once is right, and that when the modest grave at Kensal-green received the remains of James Clark on July 4, it closed over one of the best men who ever lived.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—At the summer commencements, held in Trinity College, on Wednesday, July 6, the following degrees and licences in Medicine and Surgery were conferred:—

DOCTOR IN MEDICINA, HONORIS CAUSA.

Macnamara, Rawdon, *nuper Præses Collegii Chirurgorum.*

MAGISTER IN CHIRURGIA, HONORIS CAUSA.

Dane, Ricardus.

BACCALAUREI IN MEDICINA.

Barrington, Edvardus Ebenezer.
Bernard, Armandus.
Bolton, Gulielmus.
Carter, Sidney Herbert.
Chartres, Johannes Smith.
Clery, Jacobus Albertus.
Colles, Abraham.
Creery, Gulielmus.
Elliott, Gulielmus Hamilton.
Evans, Gulielmus Robinson.
Fawcett, Gulielmus Jacobus.
Hetherington, Carolus Edvardus.
M'Nalty, Franciscus Carolus.
Mayberry, Franciscus Georgius.
Niven, Jacobus Simpson.
Palmer, Carolus de Montmorency.
Underhill, Arthurus Stopford.
White, Ricardus.

MAGISTRI IN CHIRURGIA.

Archer, Edvardus Johannes.
Battersby, Gulielmus Edvardus.
Clery, Jacobus Albertus.
Fawcett, Gulielmus Jacobus.
Hetherington, Carolus Edvardus.
M'Nalty, Franciscus Carolus.
Rainsford, Ricardus.
Underhill, Arthurus Stopford.

DOCTORES IN MEDICINA.

Chartres, Johannes Smith.
Clery, Jacobus Albertus.
Fitzgibbon, Henricus.
Fitzsimons, Henricus.
Johnston, Benjamin.
Orton, Fredericus.
Orton, Johannes.

LICENTIATUS IN MEDICINA.

Huddart, Cuthbert H.

LICENTIATUS IN CHIRURGIA.

Huddart, Cuthbert H.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received his Certificate to practise, on Thursday, June 30, 1870:—

Willmore, Frederick William, Walsall.

The following gentlemen also on the same day passed their First Professional Examination:—

Fordham, John William, London Hospital.
James, Cyrus, London Hospital.
Richards, John Edward, University College.
Stafford, Thomas, St. Bartholomew's Hospital.
Tudge, James McDougal, Guy's Hospital.
Wilson, Samuel, Newcastle-on-Tyne.

MILITARY APPOINTMENTS.

18TH FOOT.—Staff Surgeon Richard Uniacke Cashman, M.D., to be Surgeon, *vice* Daniel John Doherty, appointed to the Staff.

72ND FOOT.—Staff Surgeon John Meane to be Surgeon, *vice* Robert Thomas Buckle, M.D., who exchanges.

MEDICAL DEPARTMENT.—Surgeon Robert Thomas Buckle, M.D., from the 72nd Foot, to be Staff Surgeon, *vice* John Meane, who exchanges; Surgeon Daniel John Doherty, from the 18th Foot, to be Staff Surgeon, *vice* Richard Uniacke Cashman, M.D., appointed to the 18th Foot; Staff Assistant-Surgeon Algernon Newbegin Watts has been permitted to resign his commission.

BIRTHS.

BIGLAND.—On July 3, at 65, Warwick-gardens, Kensington, the wife of T. B. Bigland, Surgeon, of a son.

FAWSSETT.—On July 4, at Louth, Lincolnshire, the wife of F. Fawssett, M.D., of a son.

FINCH.—On June 30, at Stainton Lodge, Blackheath, Kent, the wife of Robert Finch, M.D., of a daughter.

RICKARDS.—On July 1, the wife of F. W. Rickards, M.B., Winchester, of a daughter.

WILLIAMS.—On June 3, at Judno Lodge, Llandudno, the wife of Dr. Bold-Williams, of a son.

MARRIAGES.

DOW—COOPER.—On June 30, at St. George's, Bloomsbury, James Alexander Dow, of the Admiralty, second son of the late W. A. Dow, Esq., Special Pleader of the Temple, to Constance, third daughter of George Lewis Cooper, F.R.C.S., of 7, Woburn-place, W.C.

EARLE—JENNINGS.—On July 2, at Trinity Church, Cloudesley-square, Frederick Earle, M.D., of Edgware, to Louisa Mary, daughter of William Jennings, of 9, Barnsbury-square, London, and Caldbeck, Cumberland.

ELLIS—WOOLER.—On June 30, at the parish church, Mirfield, Yorkshire, by the T. Nevin, M.A., Vicar, Joseph Rhodes Ellis, M.R.C.S.L., of Dunbottle House, to Harriet Wooler, daughter of the late Charles Wooler, Esq., of Ledger Mill House, both of Mirfield.

LOMAS—DICKINS.—On July 5, at St. Stephen's, Coleman-street, William Lomas, M.D., M.R.C.P., of 35, Finsbury-square, E.C., to Amy, elder daughter of F. O. Dickins, Esq., of Brighton.

DEATHS.

BARNETT, THOMAS WILLIAM, M.R.C.S., at 72, Fore-street, Limehouse, on June 29, in the 80th year of his age.

PHILLIPS, THOMAS BACON, M.D., at 5, Brunswick-place, Brighton, on July 4, aged 45.

STOKES, JANET ISABELLA, the beloved wife of Henry Edward Stokes, Mount-road, Madras, at Howth, near Dublin, on July 4.

WEIR, FANNY ELIZABETH, the wife of Archibald Weir, M.D., at St. Mungho's, Great Malvern, on July 4, aged 28.

VACANCIES.

In the following list the nature of the office vacant, the qualification required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the President of the Infirmary, on or before the 20th inst.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to the Medical Committee on or before the 21st inst. Election on the 25th.

BIRMINGHAM BOROUGH LUNATIC ASYLUM.—Assistant Medical Officer; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Clerk, at the Asylum, on or before July 14.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN-ROAD, W.C.—Assistant-Surgeon; must be F. or M.R.C.S., not practising midwifery or pharmacy. Applications and testimonials to the Secretary on or before the 14th inst.

CHARING-CROSS HOSPITAL, WEST STRAND.—Assistant-Surgeon; must be F.R.C.S.E., and reside within three miles of the Hospital. Applications and testimonials to the Secretary, on or before July 12.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Surgeon; must be F. or M.R.C.S.E. Applications and testimonials to the Secretary on or before the9th inst.

LEEDS PUBLIC DISPENSARY.—Assistant Resident Medical Officer; must have a legal qualification and be registered. Applications and testimonials to Mr. C. J. Wright, 2, Park-square, Leeds, on or before July 16.

LIVERPOOL ROYAL INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to the Chairman of the Committee on or before the 19th inst.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—Demonstrator of Anatomy. Applications and testimonials to the Registrar on or before July 9.

MALE LOCK HOSPITAL.—House-Surgeon. Applications and testimonials to the Secretary, 91, Dean-street, Soho, on or before July 15.

NORTHAMPTON GENERAL INFIRMARY.—House-Surgeon's Assistant. Applications and testimonials to the Secretary, from whom further particulars may be obtained, on or before July 9.

OSWESTRY DISPENSARY.—Secretary and Dispenser. Applications and testimonials to J. S. Davies, Surgeon, Oswestry.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—Medical Officer to attend patients at their homes. Candidates must be registered and have both Medical and Surgical qualifications. Applications and testimonials to Mr. John Barber, 41, John Dalton-street, Manchester, on or before the 15th inst.

WORCESTER GENERAL INFIRMARY.—House-Surgeon's Assistant and Dispenser; must be legally qualified. Applications and testimonials to the Secretary on or before July 14, at the offices, 50, Foregate-street.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Lancaster Union.—Mr. John Johnstone has resigned the Southern District; area 35,464; population 5233; salary £45 per annum.

APPOINTMENTS.

Bradfield Union.—George H. Davis, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Fourth District.

Lincoln Union.—Andrew Campbell, L.F.P. and S. and L.M. Glasg., L.R.C.P. Edin., to the Fourth District.

Mansfield Union.—John J. Bingham, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., to the Sixth District.

Oswestry Incorporation.—Wm. H. Box, M.R.C.S. Eng., L.S.A., to the St. Martin's District.

Ruthin Union.—Evan P. Williams, M.R.C.S. and M.D. Univ. Edin., L.S.A., Lond., to the Llanrhaiadr District.

Weobley Union.—Wm. H. Kerbey, M.R.C.S., L.S.A., to the Weobley District.

Wigton Union.—Wm. P. Murphy, L.R.C.S. Irel., L.S.A., to the Bowness District.

COLLEGE ELECTIONS.—At a special meeting of the Council of the Royal College of Surgeons on Monday, the 4th instant, Mr. John Hilton, F.R.S., Surgeon to Guy's Hospital, and a late President of the College, was re-elected a member of the Court of Examiners for an additional quinquennial period. Another meeting of the Council will take place on Thursday next, the 14th instant, for the following among other elections, viz., a President and Vice-Presidents, the examiners in Medicine and midwifery, a chairman of the midwifery board, the Professors and lecturer for the ensuing collegiate year, and also for the election of a representative of the College in the General Medical Council, in the vacancy caused by the expiration of the term of office of Mr. Cæsar H. Hawkins, F.R.S., who, much to the regret of the Council, declines to be again nominated.

BRITISH MEDICAL BENEVOLENT FUND.—At the last monthly meeting the sum of £115 was distributed in grants to ten applicants, while six other cases were postponed for further inquiry to be made respecting them, and three were passed over as not being suitable cases for assistance. The death of one of the inmates of Providence-place, Chippenham, was reported, so that there is now a vacancy, the candidate for which must be a Member of the Royal College of Surgeons of England, or the widow of such. Among the subscriptions received since our last notice are, Thomas Knight, Esq. (Brompton), £10 10s.; H. S. (London), £10; Sir H. Holland, Bart. (additional), £10; G. Critchett, Esq., £5 5s.; Charles Rothwell, Esq. (Bolton), £6.

THE SEWAGE COMMITTEE OF THE BRITISH ASSOCIATION.—This unfortunate committee laid its troubles before the Council of the British Association last Saturday but one, and on the occasion of its next meeting in committee delegated its powers to a sub-committee composed of Mr. Grantham (the chairman), Dr. Williamson, Professor Corfield, and Mr. Hope. The refractory minority of the Sewage Committee regard this step as an improper one, and as being inconsistent with the obligations undertaken towards subscribing towns. With the exception of the chairman the sub-committee contains only one of the original committee men appointed by the British Association, viz., Mr. Hope, the other members of sub-committee having been appended to the committee since the Exeter meeting. According to the objectors (who have likewise entered a protest against the proceedings) the sub-committee will consist essentially of Mr. Hope, who is before the public as one of the chief promoters of sewage irrigation.

BEQUESTS, DONATIONS, ETC.—Addenbrooke Hospital, Cambridge, has become entitled to £500 under the will of James Ivatt, Esq., of Cottenham, and has received one of £100 under the will of Canon Sparke. £500 has been contributed to the building fund of the Rotherham Infirmary and Dispensary by "T. L., forty years in a foreign land, but who still loves old England." The Salisbury Infirmary has received £200 under the will of J. C. Wheeler, Esq. George Rule, Esq., bequeathed £100 to the Royal Infirmary, Edinburgh.

THE salary of Mr. Robert A. Jones as Surgeon to the County Gaol, Carnarvon, has been increased from £55 to £80 per annum.

BANQUET AND TESTIMONIAL TO DR. MACAULAY, OF CANOBIE.—On Friday evening week a banquet was given at Canobie, Dumfriesshire, to Dr. Macaulay, who had been resident in that town since 1854. The Doctor had a considerable private practice, was Surgeon to the Duke of Buccleugh's collieries, and was parochial Surgeon. Soon after a late contest in the Dumfriesshire burghs, in which Dr. Macaulay had voted for the Liberal candidate, Sir S. Waterlow, he received notice from the Duke's chamberlain that his services were no longer required at the collieries. Quickly following this, came a similar intimation from the parochial board, and three weeks afterwards he got notice to quit Eskbank, his residence. Immediately petitions were sent off to his Grace, and those who took the lead were the colliers. Out of a total of 238 colliers, no less than 230 signed the petition. Succeeding that there was a petition got up in the parish by the Doctor's patients and friends, and that petition was signed by nearly 1400. Strangely enough, no answer could be obtained to either petition or private communication, and the friends and patients of Dr. Macaulay met to express their sympathy with him and hand him over purses of money collected for him amounting to £245. Many excellent speeches were made, and much enthusiasm exhibited in the Doctor's cause. He returned thanks in a sensible, manly, and independent speech, which was loudly cheered.

THE MARINE HOSPITAL AT BERCK-SUR-MER, NEAR BOULOGNE.—The Administration of Public Assistance founded in 1861 a small experimental Hospital, containing 100 beds, for the treatment of the poor scrofulous childen of Paris; and the experiment having answered every expectation, it built an additional establishment of 500 beds, which was opened last year by the Empress, as we noticed in our preceding volume. Desirous also of affording the opportunity of treatment at the seaside to families whose means did not allow of their incurring the expense of residence there, the Administration has devoted the smaller Hospital with its 100 beds for the reception of children, the cost of whose treatment there—1 franc 80 centimes per diem—is to be reimbursed. Eighty beds are placed at the disposal of families living in Paris, who are so circumstanced as to require this aid, and the other 20 are reserved for scrofulous children of the Department du Nord.—*Union Méd.*, June 25.

NEW MODE OF EVADING PAYMENT OF A SURGEON.—The following case is one that appears applicable to every British port in the world. It is extracted from the *Southland News* (New Zealand), and is from the pen of Mr. F. A. Monckton, of Invercargill:—"On an accident happening at the Bluff, and a request sent by telegram through the police, I proceeded on horseback to the *Sea Wave*, whose second mate was the sufferer; and having administered chloroform and operated, I subsequently gave the necessary Professional attendance until his convalescence. As the captain refused payment on the grounds that the accident did not occur in the performance of ship's work, and that I was not engaged by his instructions, and as, until after the case was heard, I did not know by whose authority the message was sent, I, in my ignorance, brought my claim against the person who received my services—viz., James Spargo, second mate of the *Sea Wave*, who made no attempt to deny the work or dispute the charges; but was told by Mr. M'Culloch (the resident magistrate) that if he had signed ship's articles, no larger amount than five shillings could be recovered under the 234th clause of the interpretation clause of 'Merchants' Shipping Act, 1854.' Of course the man had signed articles in London, and so a decision was given against me. Now, to lay on one side the question of who I ought to have sued, or whether a remedy existed or not, I wish to more particularly point out the possibility of any man defrauding his creditors, for a time at least, by simply signing a ship's articles. I append the clause, which is stringently worded, and I am now puzzling my brains to know why resident magistrates are not appointed from men of legal education and eminence, and therefore as capable of showing the remedy as of discovering the flaw. I formerly entertained an impression that, though an appeal would be allowed on a point of law, a magistrate's court was intended to be one of equity and good conscience. Perhaps I was right, perhaps wrong; but of one thing I am certain, that I am rapidly inclining to the frequently-discussed opinion that the toss of a coin would be a cheaper and very often as satisfactory a method of settling a mooted point."

On Wednesday, June 29, the biennial festival of the Hospital for Diseases of the Throat, was celebrated at the Freemasons' Tavern. The Earl of Powis most ably filled the chair, and the assemblage was graced by the presence of many ladies, not perched as usual in the gallery, while the lords and masters feasted, but taking part in and redeeming from barbarism the festive occasion. After dinner a collection of upwards of 2000 guineas was announced.

Condensation of Combinations of Carbon with Separation of Water, and their Importance in Plant-life.—Herr A. Kekulé, of Bonn, has discovered that common acetic aldehyde may pass over very easily, and even spontaneously, into crotonic aldehyde, which then yields the well-known crotonic acid. The transformation is easily understood by supposing that two molecules of the first aldehyde, by elimination of water are condensed into a single molecule, and this appears to be of very great importance in explaining the formation in nature of substances richer in carbon, and more complicated, out of simpler ones. Herr Kekulé proposes to study and explain these processes more exactly; but in the meantime many speculations will arise out of them. Thus Herr Bäyer, of Berlin, has developed his views on plant-life and on fermentation. According to his explanation, sugar is not formed in plants, as has hitherto been supposed, by the splitting up of substances of complicated composition, but synthetically from carbonic acid and the products of their reduction, among which Herr Bäyer believes may be included methyl-aldehyde, discovered by Professor Hofmann. This aldehyde has the same composition as sugar, but a smaller molecular weight; and, by the union of several molecules of methyl-aldehyde, sugar might be produced. Herr Kekulé also believes this to be probable. In fermentation, Herr Bäyer thinks that, as a consequence of the internal movement which is a part of this process, an accumulation of oxygen takes place within the molecules of sugar, which results in its separation into alcohol and carbonic acid. The elimination and absorption of water in different ways, which the theory points out, appear to be processes of the greatest importance in the changes of carbon-combinations in plants.—*Academy*, No. 6.

Leprosy.—A man from Shantung, aged 30, but to appearance 45 years, came to the Hospital with ta-fêng-tsï or leprosy. His eyelids were gone, he had lost all sensation in his hands, and complained of impaired vision. His was not a solitary case; he knew in his own neighbourhood seven or eight individuals who were likewise so affected, and all agreed to call it by the above name. It has long existed and been recognised in the locality. The province is mountainous; but whence he came is flat and occasionally inundated by the capricious Hwang-Ho. He, like the others so affected, was an agriculturist, and owned and tilled a few acres of land. His parents and relations never manifested any similar symptoms; they marry, intermingle and have families, and it does not seem to be hereditary according to his statement. His relations were not known to have had syphilis or elephantiasis. This patient had the disease for eight years, and had tried all remedies, and well-nigh spent his living on drugs and doctors without any permanent result. Once or twice each year it broke out with great virulence, when all his symptoms were increased, but the remedy applied seemed by his own account to keep it to some extent in check. The popular nostrum in Shantung consisted in acupuncture and the wholesale swallowing of drugs. The former practice obtained between the eyes, on the cheeks, temples, upper lip, and chin, with the fingers, the palms of the hand, soles of the feet and the heels. Immediately on the puncture a small quantity of musk is introduced, and the moxa is used to drive in the benign effects of this drug and drive out the leprosy; the same time fifteen medicines are infused together in several gallons greater and boiled down to about one gallon, and this is drunk. The ingredients and quantities will be found in the appendix(C.) In the South two kinds of leprosy are mentioned, "wet" and "dry." The particular form of this patient might be called anæsthetic. Little hope was held out to this patient of an ultimate cure. The affection is exceedingly rare in the North, this being the first case that has been seen. In the South, lazar houses exist, and are supported from the Imperial exchequer.—*The Fifth Annual Report of the Peking Hospital, by Dr. John Dudgeon.*

A Query for Horticulturists.—M. Amedée Latour, besides being a learned journalist, is an accomplished horticulturist, and while deploring his loss occasioned to his flowers by the tremendous heat and utter absence of rain, puts a query as to the reason why artificial irrigation is so much less efficient than natural rain. "Evidently the water which I give to each foot of flowers, greatly exceeds the quantity which the most torrential rain furnishes them; and yet while a good rain maintains the flowers fresh and the ground moist for several days, the most generous watering, after twenty-four hours, has to be repeated. Does the composition of rain-water, especially at the time of storms, differ from that of our wells and ponds? Has it not been said that the rain of a storm becomes combined with ozone? And have we not heard of a certain quantity of nitric acid existing in rain-water, that is ammonia, and consequently azote, the richest of manures? I have no clear idea of any of these things, but I am quite certain that watering by the hand of man is not attended with the same effects as the watering which comes from the clouds."—*Union Méd.*, June 25.

Composition and Quality of the Metropolitan Waters in June, 1870.—The following are the returns of the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	17·00	0·079	0·023	0·001	13·0	3·5
West Middlesex	17·40	0·034	0·020	0·001	13·6	3·6
Southwark & Vauxhall	17·98	0·066	0·023	0·005	13·7	4·1
Chelsea	18·07	0·086	0·023	0·002	13·9	3·8
Lambeth	18·57	0·069	0·027	0·001	13·9	4·2
Other Companies.						
Kent	26·77	0·004	0·033	0·000	19·2	5·2
New River	16·03	0·021	0·023	0·000	12·6	3·4
East London	15·83	0·034	0·027	0·001	11·8	3·2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 107,279,754 gallons; and the number of houses supplied was 478,255. This is at the rate of 33·3 gals. per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 23 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

H. Letheby, M.B.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

L. Cresswell.—It cannot well come into force before January, 1871; very likely there will be alterations in the Commons.

O. W. B.—According to the strict rules of etiquette, no charge in such a case should be made. But there are exceptional circumstances in the instances before us which make the refusal to remunerate the Medical gentleman in attendance to appear most ungracious and ungrateful. It would be well, however, for our correspondent to pocket the insult as well as the injury.

Dr. Beauperthuy's Treatment of Leprosy.—Dr. Bakewell, the Medical officer of health of the colony of Trinidad, who has been sent home by the governor of Trinidad to report the result of his trials of Dr. Beauperthuy's treatment to the Secretary of State for the colonies, has sent in his report, which has been transmitted, by directions of Lord Granville, to the College of Physicians for their opinion. As Dr. Bakewell has received numerous letters on this subject, which have been delayed in consequence of having been sent to his former address, he requests us to say that his present address is—and will be as long as he remains in England—Waverley-villas, Hendon, N.W.

Whitehead's Soup Squares (8 *and* 9, *Lime-street-square, London, E.C.*).—We shall be doing a service to our readers by pointing out the great variety of soups now manufactured into solid squares, and their excellence. Green pea, chestnut, and carrot soups furnish the Physician with means of varying the diet of the convalescent, and at a price to suit the worst filled purse.

The editor of a contemporary, claiming to be a Medical journal, tells the public how Baron Liebig recovering from "nervous headache and carbuncle of the neck, has been attacked by anthrax"!!

Public Urinals.—We have lately heard loud complaints by foreign friends of the absence of public urinals in the streets of this metropolis; and we must admit that witty strictures passed by our friends upon our prudishness are not unmerited. It is certainly remarkable that, in a matter of such obvious necessity, so little provision should have been made in this great city for the convenience and comfort of those who have to traverse its highways. Not only foreigners, but strangers from our own provinces often suffer extreme inconvenience and pain, and are sometimes vexatiously hindered in their business by their inability, from lack of opportunity, to relieve the ordinary calls of nature. It may well be asked of sanitary engineers—Could not some arrangement be made whereby easily-found *lieux d'aisance* might be provided in our chief thoroughfares without their presence being too grossly obtruded upon our notice? Surely, a matter so conducive to the comfort—not to say health—of wayfarers in London might very readily be arranged on a satisfactory and workable basis by the Metropolitan Board of Works, which body has, we presume, power to make the necessary provision without seeking the aid of Parliament. We commend this matter to the attention of our rulers: it commends itself to the common sense of dwellers in cities.

CORRIGENDUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your number of June 25, you publish an extract from the roll of the Fellows of the College of Surgeons in the order of seniority, inserting the names of several provincial Fellows. As the letter I happens to come before J (Jones being the last name on your list), I may be allowed to state that I was also elected a Fellow on August 20, 1844.

Leeds, July 1, 1870. I am, &c. J. INNHAM IKIN.

A QUERY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—What has become of the projected Medical Office Insurance Company, whereof "Tribune" was the introducer in the Medical papers?

I am, &c. HOLLINS.

COMMUNICATIONS have been received from—

Mr. J. MOOFORD; Dr. J. FINLAYSON; Dr. DAY; Dr. RUSSELL; Mr. OATES; Dr. FAIRBANK; Dr. FAYRER; Dr. J. E. SMYTH; Dr. HERBERT DAVIES; Dr. BAKEWELL; Dr. BRADY; Dr. BOLD-WILLIAMS; Mr. L. CRESSWELL; Dr. J. B. WILMOT; Mr. J. E. TUSON; Dr. T. DAVIDSON; Mr. P. P. NCID; Dr. PARKES; Mr. CHATTO; Mr. H. ARNOTT; Dr. RUSSELL.

BOOKS RECEIVED—

Practitioner, No. 25—Quarterly Journal of Science, No. 27—Edinburgh Medical Journal, No. 181—Journal of Mental Science, No. 38—Quarterly Journal of Microscopical Science, July—British and Foreign Medico-Chirurgical Review, July—Monthly Microscopical Journal, No. 19—Food Journal, No. 6—Westminster Review, No. 75—Johnson on Cholera and Choleraic Diarrhœa—Popular Science Review, July—Wormell on Hydrostatics and Sound—L'Herpétisme: Pathogénie, Manifestation, Traitement, Pathologie Experimentale et Comparée, par le Dr. L. Gigot-Suard—Du Traitement des Coliques Hépatiques precédé de Remarques sur les Causes, les Symptomes, et la Nature de cette Affection, par le Dr. H. Sénac.

NEWSPAPERS RECEIVED—

Edinburgh Evening Courant—Pharmaceutical Journal—Preston Chronicle—Scotsman—Standard—New York Medical Gazette—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

July 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

11. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

12. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

13. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH, 4 p.m. Meeting for Election of Officers.

14. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

15. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 2, 1870.

BIRTHS.

Births of Boys, 1129; Girls, 1084; Total, 2213.
Average of 10 corresponding weeks, 1860-69, 1963·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	693	666	1359
Average of the ten years 1860-69	639·2	588·0	1227·2
Average corrected to increased population	...	...	1350
Deaths of people above 90	1	...	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	9	20	1	10	1	3	...	42
North ...	618210	4	12	20	2	2	1	4	...	51
Central ...	383321	1	11	5	1	2	...	...	3	21
East	571158	7	4	7	...	4	2	3	2	37
South	773175	...	6	28	2	10	4	2	2	41
Total	2803989	12	42	80	6	28	8	12	7	192

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·860 in.
Mean temperature	57·7
Highest point of thermometer	75·1
Lowest point of thermometer	44·8
Mean dew-point temperature	48·3
General direction of wind	Variable.
Whole amount of rain in the week	0·16

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 2, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending July 2.	Deaths Registered during the week ending July 2.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2213	1359	75·1	44·8	57·7	14·28	0·16	0·40
Portsmouth ...	122084	12·8	66	26	76·2	43·9	58·7	14·83	0·08	0·20
Norwich	81087	1·09	44	37	67·8	46·0	54·2	12·33	0·71	1·81
Bristol	171382	36·6	124	76	71·3	44·7	56·2	13·44	0·00	0·00
Wolverhampton ...	72990	21·5	45	23	67·2	45·2	54·7	12·61	0·21	0·54
Birmingham ...	369604	47·2	232	115	69·2	48·0	55·8	13·22	0·15	0·38
Leicester	97427	30·4	58	38	67·7	44·7	55·1	12·83	0·30	0·76
Nottingham ...	88888	44·5	88	19	69·8	45·3	56·3	13·50	0·12	0·30
Liverpool	517567	101·3	427	264	61·8	50·4	54·2	12·33	0·14	0·35
Manchester ...	374993	83·6	274	174	65·4	46·0	54·7	12·61	0·77	1·96
Salford	121580	23·5	89	48	65·1	45·7	53·3	11·84	0·65	1·65
Bradford	143197	21·7	168	69	68·0	47·5	56·1	13·39	0·45	1·15
Leeds	259527	12·0	322	118	69·0	48·0	55·8	13·22	0·49	1·25
Sheffield	247378	10·8	200	101	67·0	47·0	54·9	12·72	0·37	0·94
Hull	130869	36·7	92	57	66·0	38·0	52·7	11·50	0·45	1·15
Sunderland ...	94257	30·5	131	4	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	148	51	62·0	43·0	50·8	10·44	1·36	3·45
Edinburgh	178970	40·4	147	80	79·7	46·0	56·6	13·66	1·20	3·05
Glasgow	468189	92·5	376	217	...	...	...	...	...	...
Dublin (City, etc.*)	321540	33·0	167	123	66·7	43·5	54·5	12·50	0·00	0·00
Total of 20 Towns in United Kingd'm	7209603	33·8	5411	3038	79·7	38·0	55·1	12·83	0·42	1·07
Paris—Week ending July 2	1889842	242	...	1220	...	...	...	...	...	...
Vienna—Week ending June 25 ...	605200	167	...	423	...	...	67·3	19·62	...	...
Berlin—Week ending June 30 ...	702437	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·860 in. The highest barometrical reading was 29·93 in. on Tuesday, and the lowest was 29·81 in. on Saturday.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

LECTURE II.

A FEW years ago there appeared a very remarkable work, published under the title of "Cellular Pathology," by Professor Virchow, of Berlin. That work, followed as it was by the greater work on tumours, by the same illustrious author, has had a great effect upon pathology in this country.

In it a new pathology rises up boldly, or at least is regarded as rising up boldly, and ostensibly claiming to show all morbid changes as the work of cells. It appears to purport to unseat and replace that pathology which, until its publication, was thought to be established — the pathology developed by Rokitansky, and Alison, and Simon, and Paget, and Wilks. We shall have to examine the scope of this new cellular pathology, and ascertain if possible whether it ought to take the place of the older pathology, or whether it ought rather to be added to it and accommodated to it. I believe that so far from any essential or fundamental change having been made by it, the cellular pathology is, in truth, only an extension of previous knowledge—a gaining of more exact acquaintance with processes whose nature was already well recognised, and had been very well stated and defined.

The limits that I have set to my subject in my first lecture exclude from our consideration the changes which functional variations of organs and fluids cause, so we have to leave the very interesting, and I fear more attractive, branch of the general science of disease which concerns us in understanding symptoms by the chemistry of the blood or the evil effects of retained excretions. And we must set ourselves to consider what is the general nature of local tissue change. The changes to which tissues are liable come under these divisions:—Congestion, inflammation, hypertrophy, tubercle, tumour, atrophy, and degeneration.

It will be well, first of all, to consider generally congestion and inflammation in relation to the other kinds of tissue change, as it is vitally important to understand clearly how these are related to the others, for it is mainly in the matter of congestion and inflammation that the possible opposition of cellular and vascular pathology will be found. He who understands the mutual relations of congestion, inflammation, and hypertrophy has the key to the analysis of pathological changes. But it is certain that these three do not stand to each other in any straight order. On the other hand, their relations are several and oblique, so that their mutual methods of succession and causation have to be studied from the point of view which each of them affords. We shall learn that congestion is a coarse word, that though it is a convenient term for signifying mere excess of blood in a part, yet it does not import any appraisable character of the change that it indicates. Further, that congestion is related, on the one hand, to inflammation in a way that we must discuss, and, on the other hand, in a different way to hypertrophy and the other formative changes. Again, we shall learn that inflammation is a word that is used in at least two entirely distinct senses, which are as different as anatomy from physiology. In one of these it means the vital phenomena that are clinically observed and suffered; in the other it means the material change that is found in the part inflamed. The confusion of these two meanings does much to obscure the view we may take of inflammation in its several relations on the one hand to congestion, and on the other to hypertrophy.

Hypertrophy, again, has a direct relation to congestion and another to inflammation.

I have used the word congestion in preference to hyperæmia, because the latter word has been long offered for public acceptance, and yet is not generally used, while the word congestion is constantly employed in evidence before the coroners, and often so as to produce a very wrong impression if it does not arise in one, so that a consideration of it promises to be useful.

The word congestion is part of the nomenclature of a theory now for ever hopelessly exploded—that of fluxions, which did duty before the circulation of the blood was known. It is a word that has stood very much in our way, and still, from the licence and irregularity with which it is used, stands very much in the way of the general spread of a more enlightened view of the true nature of the processes in which hyperæmia plays a part.

Congestion has been defined as overbloodedness, and it is nearly always viewed as being of only two kinds, *active* and *passive*. The relations of these two sorts of congestion have been stated very neatly thus:—"The conditions of hyperæmia are twofold—namely, too much blood may be brought into a part, which constitutes *active* hyperæmia; or too little may pass out of a part in proportion to what flows into it, and this gives the state of *passive* hyperæmia." But this scarcely describes either of the states, for, in active congestion, not only is too much blood brought into a part, but too much also passes out of it,—there is too large a stream of blood through the part. And again, in passive hyperæmia as defined in the quotation, we must distinguish two wholly distinct congestions—namely, such as are *mechanical* and such as are truly *passive*.

When pathologists were endeavouring to explain congestion by changes in the vessels and blood, there was an unmanageable difficulty about the two kinds of congestion active and passive. On the supposition that congestion was no more than a fulness of the vessels due to obstruction, pathology could never show why the results of active congestion which leads to inflammation should be so different from the results of passive congestion which leads to dropsy, etc. Consider these states as they occur in the lung—first, in narrowing of the mitral orifice, a very intense congestion occurs in the lung, evidently attributable to the mechanical stoppage of the blood at the obstructed valve. This leads to a condensation of the tissue of the lung, and at last, perhaps, to a bursting of its minute vessels, causing pulmonary apoplexy. Now, when pathologists tried to hold that the fulness of blood occurring in the bronchial mucous membrane in chronic bronchitis, which they also called a passive congestion, and even, too, the congestion which occurs in acute pneumonia, which they called active congestion, were equally with the passive congestion of mitral disease, to be viewed as based upon mechanical impediment to the circulation of blood in the part,—then they met a difficulty which could not be overcome from that point of view; no one could explain why such different causes and results followed from the several congestions.

But now these different kinds of congestion stand well apart, and we are able to see the causes of their differences and the conditions of the likeness they bear to each other. We know best the results of congestion due to mechanical stoppage of the venous current. We will take these in order. They are—*First*, distension of the veins behind the obstruction, which leads to stretching and thinning of their walls, and so apparently to leakage of serum through these into the tissue, producing œdema there. What passes thus through the vessels is not entire serum, however; it can best be examined where it is collected in the great cavities, forming hydrothorax or ascites. The usual specific gravity of dropsical effusions in the chest is about 1015 to 1019, whereas the specific gravity of the serum is 1028, so that more of the water than of the solids of the serum passes out of the vessels in these dropsies. The specific gravity of effusions varies, however, in different parts; that, for instance, which is found in the ventricles of the brain in hydrocephalus is of much lighter specific gravity, whether it is caused by obstruction of the venæ Galeni, through contraction of lymph around them, or by impediment to exit of the ventricular contents at the apex of the fourth ventricle. The liquid of hydrocele, on the other hand, has a high gravity. In the case of the liquid in the brain, the light gravity corresponds to the lightness of the liquid naturally present there, which, indeed, is little more than water. And hence we must conclude that in these dropsical effusions the natural secreting powers are not without influence in modifying the nature of the separated liquid. Nearly always in a subject with hydrothorax and ascites you will find the thoracic liquid lighter than the abdominal. So that dropsy is, at least partly, an augmentation of the kind of effusion or secretion natural to the part, and not simply sweating or leaking out of the serum. The *second* result of mechanical obstruction to the vein-stream is effusion of blood, probably from rupture of the over-distended vessels behind the obstruction. The first and most common of the stock examples of this is pulmonary apoplexy, but there is one circumstance about this state which renders it unfit to serve as an instance, and that is the curious but constant presence of a plug of fibrin in the pulmonary artery of every apoplectic patch in the lung, which plug you always find, whether you take old museum specimens or cases occurring in recent post-

mortems. The argument concerning pulmonary apoplexy is a long one, but I believe that the plugging of the artery precedes, and somehow causes, the effusion of the blood. We must look elsewhere for uncomplicated examples of rupture of vessels behind mechanical obstruction. The free escape of blood into the stomach in cases of cirrhosis of the liver obstructing the portal vein, or in cases of obstructive heart disease; the cerebral hæmorrhage that sometimes results from infantile convulsions, and hæmorrhage from rupture of varicose veins, will serve as instances. Time was when we could speak strongly concerning these hæmorrhages. Thus, "The notion of blood passing through the walls of a vessel without a lesion of the latter is one that could only belong to times when the structure of minute vessels was unknown—capillaries naturally possess delicate but perfectly solid and continuous walls; and it is just as impossible for a single blood-corpuscle to get through that wall without a hole being made for it, as it would be impossible for the entire man to sink through the floor of an apartment without an aperture of his own size existing for his passage." But all this is changed now. If the femoral vein of a frog be tied or pinched in forceps, and the capillaries of the foot-web watched, corpuscles are seen to make their way through the capillary walls. They evidently go through holes much smaller than themselves, so that in the middle of their passage they are hour-glass shaped, half in and half out of the vessel, constricted much where actually passing. Whether the walls of the capillaries are composed of cells adapted to each other so as to leave pores between them, as Aeby and Auerbach affirm on the faith of specimens stained with metallic deposits, or whether rather our minute tissues, during their life, possess some of that yielding and closing capacity that one sees in the amœba, which can take in a fellow-creature of its own size through its skin and then close over it so that there is no remaining opening, I think we don't know. The discovery of amœboid movements of blood and pus cells shows that such negations as I have quoted, which we confidently apply to common mechanical unliving shapes, cannot be applied to living things. It is indeed very surprising to find a very free and even a fatal hæmorrhage from the stomach while the mucous membrane from which the blood must have come is entire, yet no doubt this sometimes occurs. Nevertheless its occurrence must not be accepted without very careful search over the mucous surface, for the opening of a vessel may be very small. I have met with a case where cirrhosis of the liver led to total obstruction of the portal vein by ante-mortem coagulation in it, and in consequence of this obstruction a varicose œsophageal vein ruptured close to the cardiac orifice of the stomach; a small hole was found leading into the vein-channel; the patient had bled to death from this. The occurrence was equivalent to rupture of œsophageal piles, and it is an interesting link connecting the common anal hæmorrhoids that arise from hepatic obstruction with the dilated venules on the cheeks and in the mouth that we recognise as signs of obstructed hepatic circulation. These venules are indeed no other than facial hæmorrhoids.

The third result of mechanical obstruction is thrombosis or ante-mortem coagulation of blood in the obstructed veins. The example I just now mentioned of clotting in the portal vein, will instance this result very well. It is an occurrence that is found more frequently in direct proportion to the number of times you open up the portal vein in inspections of cases of cirrhosis. The two other ordinary sites of thrombosis from mechanical obstruction, are the veins of the bend of the thigh and the prostatic veins. In cases of cardiac dropsy some thrombosis of these veins is the rule. The clots begin often behind the valves, in the stagnant eddies which occupy their hollows, and it is far from infrequently that we find portions of the clots so formed in these veins to have been broken off, and passing up the vein and through the heart, to have been stuck in a bifurcation of pulmonary artery, where in heart disease they are part of the cause of pulmonary apoplexy, as I have already said. At the present time there is in the clinical ward a patient with dropsy from pulmonary and cardiac obstruction, and the right innominate vein has become obstructed by ante-mortem coagulation. We have several specimens of a similar occurrence in the museum. It is very important to distinguish between these simply passive coagulations from stagnation on the one hand, and on the other the clotting of blood in the veins that are truly inflamed. Such inflammatory coagulation you often find in the cerebral sinuses in cases of traumatic or spontaneous inflammation of the cranium, and in the veins of ill-conditioned stumps after amputation. The clots in these cases are composed of purulent and not merely puriform matter. They are covered with fibrin on the side in contact with the blood in the vein, and this covering clot of fibrin may form a considerable proportion of the whole clot, but in these inflammatory cases some part will be found to be purulent. If a part of such a clot becomes loosened and finds its way into the pulmonary artery, the result of its presence is an inflammation of the part of lung supplied by that artery. We had yesterday a case where sloughing of the wall of the jugular vein had arisen from the extension of necrotic disease from the petrous bone through the lateral sinus to the vein; several large pieces of clot from the gangrenous vein had passed into the pulmonary artery, and at the spots where these clots were lodged, the wall of the artery was necrosed and changed to slimy blackened pulp, although the texture of the lung around was not affected.

The fourth effect of mechanical congestion is gangrene; we see this in the limbs and scrotum in heart disease, but there are complications in this process, erythema commonly precedes it. We, however, know that mechanical obstruction of the vessels will lead to gangrene. We may see, though I hope we never shall see, gangrene supervene in the toes of limbs which have been bandaged with too much vigour by inexperienced persons.

Such are the four results of mechanical (obstructive) congestion. They succeed each other as results of successive increments of mechanical obstruction to the circulation, and they are natural consequences of the obstruction, so that we easily see their causation, and, indeed, we have to beware lest we too easily see the explanation of them, for in the case of brain dropsy and pulmonary apoplexy we have proved that the mechanical are not the only causative conditions.

Now, as to passive congestion, what is it and in what does it differ from mechanical congestion? We shall see that it differs both in its cause and in its seat. Let us take, as an example, a case of severe emphysema and chronic bronchitis, and compare it with a case of severe mitral obstruction. In the first case there will be, besides the dropsy which is also present in the second, a general lividity of the surface. This is so constant that it forms a very valuable sign in diagnosis between emphysema and heart disease, in difficulties where the presence of a tricuspid murmur in the emphysema case or of some bronchitis in the mitral case makes the one otherwise very like the other. If we recognise the cause of such general lividity, we shall find an explanation of the difference. In the case of mitral disease there is free entry of plenty of air into the lungs, but little blood can pass through them. And thus that which succeeds in getting through the mitral is a small stream of well aërated blood, which goes on its course to the textures of the system. Here its good quality enables it to pass the capillaries, through the attraction the textures have for such healthy blood, and so it runs on into the veins, where it begins to meet the mechanical impediment to its further progress, so that in the veins it is detained more or less. In short, the congestion in mitral disease is in the lungs, right heart, and great veins, and not in the capillaries, and hence the comparative absence of lividity in this disease. On the other hand, in the emphysema case the blood has a *comparatively* free course through the lung, while the air is renewed with difficulty and imperfectly, so that there is deficient aëration of the blood, but a very fair stream of it is passed on through towards the systemic capillaries. When it reaches these there arises a true passive congestion. The impure blood is accepted sulkily by the tissues, and its course is sluggish and languid in the capillaries, for the force of the normal attractions is not duly exerted. Hence the skin looks livid, being gorged with this purple and unlively current. Thus the seat of such truly passive congestion is the capillaries of the part, and the cause of it is deficient activity in the vital interchanges of the part, whereas we saw that in the mechanical obstruction the seat of the congestion is in the veins, and the cause is not vital but mechanical. Passive congestion is due to negative obstruction from want of circulating force; mechanical congestion is due to positive obstruction, from resistance to the normal forces. And so they differ in cause, but the two kinds of cause combine in the case of languid action of the heart, where imperfect circulating force is at the same time a mechanical obstacle to the current, and the congestion is in cause both passive and mechanical.

It should be noted, while we are thus contrasting emphysema and mitral disease, that the opposition is not complete. The difference is so striking in the two classes of cases that you can often judge as correctly which of these states is present by a mere glance at the patient as you can after twenty minutes' examination by auscultation. But it must be recollected that in all cases of emphysema some mechanical impediment

is necessarily present to the circulation through the lung, for emphysema consists in the breaking away of air-cell walls so that the cells open into each other, and this cannot be done without proportionate reduction of the number of capillaries by the disappearance of those spread on the wasting cell walls. In this way the blood stream is narrowed as really and directly as mitral contraction narrows it. Hence arises the enlargement and thickening of the right heart in emphysema to overcome this resistance. Such enlargement does not occur in bronchitis without emphysema, and is not to be ascribed to impediment in overcoming the resistance due to impurity of air in the lung. So that, in short, emphysema never gives us purely passive congestion but along with it also some degree of mechanical obstruction not equal to that in the mitral disease. This is why the great veins of the neck are often seen enlarged in emphysema cases. The enlargement of these is a measure of ischæmia and not of dyspnœa.

As other examples of passive congestion take the blueness of cold hands, or the redness of the extremities, ears and nose of weakly people—not of people with weak circulation, for the deficiency is more probably in the vitality of the tissues and the changes that keep up the capillary circulation. Again the prolonged redness or blueness of fauces that have been the seat of severe tonsillitis; or the hypostatic hyperæmia we find present in fever in those dependent parts of the lungs which the air fails to reach in the imperfect breathing. Congestion in all these cases and in many more is not caused mechanically. It is secondary to inactivity of the vital changes in the part, and is the exponent not the cause of the ill-conditions there. It is merely a sign, though it is a convenient sign and one easily observed and appreciated.

We shall, perhaps, best state the relations of mechanical to passive congestion, if we say that mechanical congestion is congestion pure and simple, while passive congestion is congestion *plus* low vital activity, and as we shall presently find, active congestion is congestion *plus* exalted vital activity. In all of them the mere congestion, the overfulness of blood, is mechanical, but in the active and passive forms the congestion is an accident more or less unimportant, and dependent on conditions very remote from plain mechanics.

As to the results of passive congestion. The direct results in the affected tissue are two—first, you get depravation of the tissue showing itself as atrophy, with more or less of molecular change of a degenerative kind; and, second, you get vulnerability which lays it open to fall readily into inflammation under trifling injuries, while its recovering power is gravely reduced. The balance of nutrition is both sensitive and unstable.

An interesting question often arises concerning passive and mechanical hyperæmia; can either of them produce an increased growth of the tissue affected? can it cause hypertrophy? It has been argued that this cannot occur. The argument is that, though the quantity of blood is in excess, its proper qualities are so reduced, that as far as the use of the blood goes it is equivalent to an anæmia; and the argument has been most ingeniously carried further, thus:—It was supposed that this deficient state of the blood in passive hyperæmia, going as it would with deficient formative power in the fluids exuded through the congestion, explained why these exuded fluids should show an inability to undergo the organic changes, which we shall hereafter find prevalent in the results of active hyperæmia.

But now that the organic changes which accompany active hyperæmia are ascribed to the action of the cellular elements of the parenchyma, there is little place left for the last speculation, though it may be true that the more active current of aërated blood yields a better sustenance than the impure and slow current.

As to the other questions, it appears certain that in true passive congestion there can be no increase of growth in the tissue, but rather, as we have seen, an atrophy. It is otherwise with mechanical congestion—at least, there are many facts which show it to be probable that the mechanical congestion of tissues with healthy blood leads to hypertrophy of them. The spleen becomes usually considerably enlarged in cirrhosis of the liver, and this by an increase of its proper substance. All the abdominal organs are increased in size, and the lungs also become denser by cardiac obstruction. The common thickening of the membranes over the upper surface of the brain, increasing towards the longitudinal sinus, is explicable by the mechanical congestion that must be favoured there, through the current of blood from the cerebral veins entering the longitudinal sinus against the course of the stream within the sinus. The check so caused to the entering stream will have most effect on the part of the stream that is near the vein wall, for this is weaker than the current in the middle of the vein, but this parietal layer of the stream receives the blood from the parts near the sinus, and hence these will feel the check more than the distant parts, and will tend to be held all one's life in a state of mechanical congestion of mild degree. Hence it is, I believe, that we find in nearly every adult body in direct proportion to its age that there is a thickening of the meninges of the brain, decreasing from the longitudinal sinus outwards, and this, too, must be the cause of the formation of the so-called Pacchionian bodies which are always found clustered about the points of exit of the veins from the meninges to join the longitudinal sinus, at the part, that is, which suffers most from the check and congestion we are considering.

I have thus first, and somewhat fully, considered the effects of mechanical and passive congestion, that we may be prepared to enter on the study of the so-called active congestion with a knowledge of the effects of simple congestion; so that we may clearly and strongly perceive those important characters of active congestion which give to it its great importance, and reduce the congestion in it to a trifle in comparison with the activity, which does not qualify but creates the congestion.

There is now no longer any reason to separate active congestion from inflammation, of which it is a phase or stage. There was once such a reason from the point of view of those Physicians who wished to see inflammation as a thing caused by congestion and congestion as a thing caused by obstruction, and so to reduce inflammation within the domain of mechanics, which we are usually able to control. But reasoning inflammation into mechanics never gave any greater power of curing it, and the arguments and experiments have finally put down for ever the notion that mere mechanical conditions will explain its phenomena.

It is now an ordinary commonplace to say that inflammation is a fault of nutrition; indeed, I cannot find out the time when the idea arose that the processes of hypertrophy and inflammation are faults of nutrition. It appears that this was the first and natural idea, and that the view which at any time has prevailed concerning the nature of nutrition has governed also the opinions then held concerning the nature of inflammation. The history of pathology rather tends to show that other beliefs, such as the mechanical and chemical views of inflammation, have arisen at different times through the attempts of original thinkers to bring inflammation out of the shady region of nutrition into the light of known laws or at least to show that known laws acting on the processes of nutrition induced the change. And while we credit those thinkers who have brought back the Profession to a view of the essentially vital nature of the active processes in the body, we must allow a very high share of praise to those experimenters who have enabled us by their experiments to see what share mechanical causes have in these obscure changes, and to be nearly sure how far they are vital and how far mechanical.

ORIGINAL COMMUNICATIONS.

ON THE VALUE OF INDIAN HEMP IN MENORRHAGIA AND DYSMENORRHŒA.

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I AM desirous of bringing the following cases before the Profession not because the discovery of the value of Indian hemp in these troublesome maladies is new, but rather because it is not sufficiently well known. It is to Dr. Churchill, of Dublin, the Profession is indebted for making known the excellent effects of Indian hemp in uterine disorders; nevertheless, I was led to the conclusion independently.

A woman, whose case I regret I cannot give in greater detail, came to Charing-cross Hospital complaining of violent pain in the loins, and of a persistent bloody discharge, the blood being sometimes clotted, and then giving rise to severe bearing-down pains during expulsion. This had lasted without interval for upwards of six months, insomuch that she was greatly reduced both by the discharge and the constant pain. To get rid of the latter, all sorts of sedatives, among others the hypodermic injection of morphia, were tried locally and generally. At the same time iron was given in considerable doses, but altogether without effect. The pain was so harassing that, after having tried a variety of sedatives, I was induced to prescribe mxxv. doses of the tincture of

Indian hemp, in hopes of giving some relief, and, to my surprise, when she returned we were told that the medicine had acted like magic, both pain and discharge having totally ceased after a few doses. Some iron was ordered, on account of the anæmic state of the woman, and she continued under observation for a considerable time, during which she remained quite well. Afterwards her visits were discontinued, and she has not now appeared for some months. It is perhaps fair to conclude that she remains well. Some similar cases, although not of the same intensity, yielding to the remedy in an equally satisfactory manner, an inquiry was made into the history of the drug, but neither in our ordinary works referring to the diseases of women, nor on Materia Medica, was mention made of it as producing good effects in menorrhagia; at last, however, it was found that hemp had been used in such cases with very good results by Dr. Churchill. Conversing with Professional friends, I have found most equally ignorant on the matter as I had been, and I accordingly resolved to collect a few cases (a few of the most recent have been selected) as the best way of enforcing the value of the remedy.

Here is a case which is typical in its way.

(a) *Case* 1.—E. B., aged 24. Married fifteen months; no family; no miscarriages. Has always been regular till she had scarlet fever in December, 1869. Since she recovered from that fever has suffered from great general debility, pain under left breast, and flushings succeeded by cold chills. Menstruates every three weeks, the discharge being sometimes scanty, at other times very profuse, accompanied by pain in the loins. Came under the care of Dr. Silver on June 10, being at the time unwell; the discharge very profuse, and accompanied by much pain. She was ordered Tr. Cannab. Indicæ, ɱxx., bis die, and found relief after the first dose; the discharge and pain speedily ceased.

June 13.—Suffers now merely from debility. To have Liq. Ferri Perchlorid. ɱxv., in Inf. Quassiæ.

June 17.—No return of flow; debility still continues; much frontal headache. Iron does not suit; to have quinine.

July 5.—Headache nearly gone, and much better otherwise. Flow begun again, normal. A little pain in the back. To have quinine again.

No. 2 is also satisfactory, and would have been more so had the woman been better fed; still she has greatly improved.

(a) *Case* 2.—C. H., aged 39, married twelve years; one child aged 11 years; six miscarriages, occurring generally between the sixth and seventh month; last miscarriage last February. General health good; menstruation always regular. Husband healthy; occupation, straw-hat maker. For the last nine months has lived rather low, husband being out of work. After each miscarriage discharge profuse, continuing about a week. Just before the time of the last menstruation (May 18) received a sudden fright, and immediately became unwell. The discharge was more profuse than usual, and was accompanied with pain in the loins. Came under Dr. Silver May 24, and was ordered the Tinct. Cannab. Indicæ. Found relief after the first three or four doses, losing the pain and discharge. Had first dose of medicine on May 24, continued it till June 6. Feels now very well with the exception of slight debility.

June 21.—Flow recurred; scarcely any pain, only very slightly in the back; no clots as formerly.

July 5.—Flow lasted nearly a week; very little pain—not more than when in usual health; has felt tolerably well since, but lacks strength; not over well fed.

These two cases, although satisfactory in one way, are not so striking as might be, the excessive flow not having continued so long as in the first case noted. The following is in that respect more striking, and illustrates the speedy and efficacious action of the hemp in proper cases. It will be remarked that when the discharge recurred at the normal time the patient was in the country, and not under treatment. Had she been at the Hospital she would have been ordered the hemp in smaller doses for the relief of the pain. The age of the patient is another feature in the case worthy of note, although not unfrequently the menstrual flow continues until a considerably more advanced age.

(b) *Case* 3.—A. C., aged 51, married; has been married thirty years; had six children. One child was born at the eighth month of pregnancy, lived four days after its birth. Two other children born at full time lived only a few hours after birth. Father and mother both living—father in good health, the mother bedridden. Has worked very hard as charwoman up to three or four years ago. Began to menstruate when 18 years old. Previous to that time suffered very much from pain in head, back, and side. Had her first child in her 20th year, and the last in her 27th year. Ever since that time has been subject to a pain in the left groin. It would come and go, and was accompanied by a swelling in that region. When the swelling went, the pain went. She had then a nasty yellow discharge lasting perhaps a week. Yet during all this time she was regular to the day, and continued to be so until March 17, when, being unwell at the time, an alarm of fire was given, and as she was the only person in the house, she was greatly alarmed. From that time up to May 10 she continued to be ill, sometimes more, sometimes less. The discharge was passed partly clotted, and with great pain. When seen first she was ordered a tonic, but that did no good. On May 10 she had Tinct. Cannabis Ind. ɱxxv. bis die (Tuesday). On Thursday the discharge stopped. Since then she has been quite well, but weak, till she went in the country. After being there a week, the flow recurred, with a good deal of pain and partially clotted; this occurred on June 4. It lasted six days, and the pain was severe; but the flow ceased at the normal period, and she is now (June 21) well, but weak. To have steel.

The above cases might be called appropriate for the use of the remedy in every respect, the menorrhagia being merely functional, as we term it, and not dependent on any organic mischief. But even in those instances where there is local mischief in the shape of tumours or malignant disease, the hemp still asserts its influence over the sanguineous discharge, but only for a time. Upon the whole, therefore, if the hemp given repeatedly, each time arresting the discharge and relieving pain, but when omitted these again recur, there is just cause to suspect the existence of uterine mischief other than merely functional disturbance. Thus, in a case of uterine fibroid tumour of great size, rising nearly to the umbilicus, and, of course, elongating the body of the uterus, the periodic flow was greatly increased, and the patient was consequently much weakened; even here the hemp proved satisfactory in arresting the discharge, but not in preventing its recurrence. In another instance, where the discharge proved intractable, a small polypoid growth was discovered, and removed, to the relief of the patient; but perhaps the following case exhibits those features in such a fashion as best to impress them on the mind:—

Case 4.—E. M., aged 38; married seven years; no family; three miscarriages within first three years of married life, occurring about the fifth month; always healthy; husband healthy. After the last miscarriage she was quite regular till the end of last summer (1869), when, without any assignable reason, the flow became much more frequent and abundant, and was accompanied with much pain in the back, worse just before the usual period. Instead of being fluid, the flow became clotted, but there was no special bearing-down pain. Gradually she became weaker, and the flow came once a fortnight, and sometimes oftener. She applied to Dr. Hutcheon, of Priory-road, Wandsworth-road, Lambeth, and got relief from her pain, but there was no change in the flow. He afterwards brought her to me, when she was ordered Cannabis Indica, with speedy relief. She took in all three or four doses, but again the discharge returned. The remedy was repeated with a like result. The following note bears date:—

June 10.—After four doses (ɱxx.) the flow again ceased, but a white discharge succeeded. She left off the medicine, and again the discharge recurred. To have Cannabis and Iron alternately.

17th.—The Cannabis has again arrested the discharge, but the flow returned soon after with clots and bearing-down pain. She has now a very great discharge, but is well otherwise. To have Cannabis with Ergot and Iron alternately.

By this time, suspecting something more than mere functional disturbance, I was anxious to procure a more exact knowledge of the origin of the discharge, but the condition of the woman precluded anything like a vaginal examination. Still as the hemp had always been successful in arresting the sanguineous flow it was given in somewhat increased doses with the usual result.

24th.—Has taken Cannabis twice a day. Flow stopped completely on Tuesday. To-day was examined by Dr. Black, Physician Accoucheur, Charing-cross Hospital, who found malignant disease of the cervix involving the os uteri and beginning to invade the vagina.

The origin of the discharge, both coloured and colourless, was thus accounted for.

This case serves to show how far we may rely on the drug for arresting sanguineous uterine discharges from whatever cause; it also shows that it may be employed to facilitate uterine examinations which might be otherwise objectionable.

(a) Notes by Mr. A. Warren.
(b) Notes by Mr. J. A. Lea.

A certain number of Practitioners, I find, have been in the habit of using this remedy, especially for painful menstruation not being mechanical. Dr. Hunt, of Hoxton-house Asylum, assures me he has given it in over a hundred cases and never knew it to fail after the third dose in relieving pain and discomfort.

The dose I ordinarily prescribe is twenty minims of the tincture. It is best given in combination with aromatic spirit of ammonia.

THE TREATMENT OF BLEEDING CANCER BY CHLORIDE OF ZINC PASTE.

By C. F. MAUNDER, F.R.C.S.,
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THERE is probably no doubt that the most humane method of treating cancerous tumours, the removal of which is deemed to be justifiable, is extirpation by the knife. The procedure is rapid, and entails less suffering. Often cases are met with which for many reasons are unsuited to a cutting operation, and at first sight the unhappy subject of the disease can obtain very little aid from art with the hope of prolongation of life. Now and then, however, examples of cancerous disease are met with which, though it cannot be taken clean away by the knife, nor by any other means, yet life may be prolonged for a while, and mental and bodily distress be diminished. The horrible discomfort which an open cancer causes both the patient and friends may be much lessened also. The history of a case now under observation will best illustrate the above remarks.

Mrs. ——, 40 years of age, extremely stout, but of good general health, first noticed a lump under the left breast about two years ago, when removal was advised by Mr. Samuel. She was then lost sight of by him until Christmas, 1869, when the disease had progressed, and become deeply adherent. In February, 1870, ulceration and bleeding had set in, and continued to increase up to the time of my visiting her. In the middle of April I saw her in consultation with Mr. Samuel, of Mansell-street. With the exception of a somewhat care-worn expression of countenance, Mrs. —— had the appearance of a person in perfect health. On examination, she was the subject of an open sore about three inches in diameter, having thickened indurated everted edges, and a firm, solid, thick base, about an inch thick. The greater part of the area of this sore and induration was below and to the inner side of the left breast, but encroached upon, running up under and into it, as it were, for a short way. On removing the dressing, blood flowed freely, and the odour was very offensive. On each occasion of dressing the wound bled very freely, causing great alarm to the patient and her friends, who were sometimes unable to arrest the hæmorrhage without Mr. Samuel's aid. Removal by the knife was impossible, by reason of the relative position and fixed state of the growth, and I determined to endeavour to prevent periodical hæmorrhages by destroying the surface of the ulcer, and keep it in abeyance with chloride of zinc paste.

The first dressing consisted in the application of a piece of zinc paste to the surface of the sore below the breast, and on the forcible introduction of one or two "points" of the same material, hardened, into the indurated portion of the adjacent mammary gland. Then came cotton-wool to absorb any possible discharge; a piece of antiseptic carbelic plaster, a compress of lint, and a bandage to retain these in position. The last and fourth application by me of the paste was made on April 27, two days having been allowed to elapse between each. At each dressing a substance composed of paste and cancer-tissue was picked away, and the depth of the diseased growth had been lessened. After the second and third application the patient experienced a good deal of pain. It was now agreed to wait the result of treatment, and to repeat the use of the chloride only in case of recurrent hæmorrhage.

I have not seen the case since, but to-day (June 17) the husband of Mrs. —— informed me that Mr. Samuel has not made any further use of the paste, nor has hæmorrhage, which was previously constant, recurred, after the lapse even of so long a time as more than seven weeks. Neither has the disease progressed, but the swelling about the sore is smaller, a large slough having come away.

To-day (June 19) Mr. Samuel tells me that "Mrs. —— has greatly improved in health, being able to sleep well, eat well, and take moderate exercise. The sore is now granulating healthily, discharging normal pus free from smell, and contracting rapidly—indeed, there is every prospect of ultimate closure of the wound, and that soon. There has been no recurrent hæmorrhage whatever; whereas formerly bleeding occurred at odd times, necessitating his being called up at night sometimes to arrest it. The good effect of the treatment upon the patient's mental and bodily health can scarcely be exaggerated, and he is both astonished and gratified by the result."

This method of treatment is of course not novel, but its applicability to certain cases has scarcely received the attention which it merits; and I am therefore the more anxious to draw the attention of the Profession to it because two seniors had just previously seen the case, and had not suggested a remedy. This is not the only instance in which I have used chloride of zinc for a similar purpose.

Had the antiseptic carbelic plaster anything to do with the good result of the treatment? does it tend to check cancer-cell growth? It has been used up to within the last week.

SCIATICA: ITS IMMEDIATE RELIEF AND RAPID CURE BY HYPODERMIC INJECTION OF MORPHIA.(a)

By HENRY LAWSON, M.D.,
Assistant-Physician to St. Mary's Hospital.

(*Continued from Vol. I.* 1870, *page* 550.)

BROMIDE of potassium—that most wonderful of drugs, whose mode of action is so unknown—will sometimes be found useful in this disease. When, owing to the patient's absence of occupation and loss of usual exercise, there is considerable sleeplessness and unrest during the earlier hours of the night, and when the patient lies awake, tossing restlessly and wearily on his bed, bromide will ofttimes prove of great service. In these cases it should be given at bedtime in some aromatic infusion, and in a dose of from twenty to thirty grains. In most instances it will procure sleep, and in nearly all it will produce that calmness of mind and quiet which are so remarkably characteristic of its action. Other sedatives I have not tried extensively enough to warrant my offering any opinion on their value in sciatica, and with the foregoing observations I conclude my account of the internal remedies for sciatic pain.

REMEDIES APPLIED TO THE SURFACE OF THE SKIN.

These resolve themselves into (1) the ordinary methods of producing "counter-irritation"—liniments, ointments, plasters, blisters, acupuncture, and the actual cautery; (2) cupping and leeching; and (3) the application of different varieties of electric vibration—static, dynamic-direct, and dynamic-induced. I omit noticing the employment of anodyne lotions and of plasters like belladonna plasters, as I consider that they have no special effect on the pain.

Perhaps of all remedies, those which come under the categories enumerated above are even at the present moment the most popular. Doubtless this is because many of them give temporary relief, as well as because in some few instances of recent cases they bring about a speedy cure, and of the methods most in vogue those of surface-irritation(b) are the most favoured. Many varieties of surface-irritants are employed, each Medical man having his own special form in which he believes. I shall very briefly advert to my experience of a few. One of the first which I tried was croton oil, as being easily applied, and productive of irritation which lasts some days. In the cases in which I used it, the oil itself undiluted, was rubbed into the skin of the thigh along the course of the sciatic nerve. One who has seen the powerful effect of this liniment on the skin of the chest would

(a) It may be as well to state that in advocating the method of treatment described in the following article I lay no claim whatever to originality. I merely give the results of my experience of a remedy which is as simple as it is effective. The application of the syringe to the hypodermic method we owe, I suppose, to Hunter and Wood. The hypodermic administration of morphia in sciatica was urged by Dr. Blakiston in these pages nearly fifteen years ago. It is too much the custom now-a-days to father upon a writer the discovery of a remedy or plan which he has merely taken secondhand from another, but which he may have been more successful than his predecessor in popularising; and writers themselves too frequently encourage the mistaken inference. This has happened so often of late that one almost despairs of that moral regeneration in Medical writers which leads to the discrimination between reticence and candour.

(b) I do not think the howl raised against the use of the word "counter-irritation" was justifiable. The expression in itself involves no hypothesis; it means simply an irritation set up in opposition to that caused by the disease. However, I have ventured to substitute the term "surface-irritation" as one which is no more than a statement of fact.

have thought that when used in a stronger form on the thigh it would produce a suitable eruption of pimples. My experience, however, was most unsatisfactory. In one patient, whose skin was unusually delicate, it acted powerfully, but ununiformly; indeed, it led to the formation of one or two very unpleasant boils, without giving a general eruption. In the others, it was simply inoperative. Ung. antim. tart. acted much in the same way, and had to be given up as useless. Nitrate of silver (a concentrated solution) produced its usual caustic action, but was perfectly ineffective as regards relief of the pain. Indeed, of all the liniments tried, that which succeeded best was a mixture of equal parts of chloroform and soap liniment. This, poured out on a piece of flannel, which was then applied to the skin, and kept in position with a warm hand, acted well. After a few seconds it produced a feeling of intense burning, so as to be no longer tolerable to the patient, but in a minute or two this passes away, and the application may be repeated. I found that a series of such applications, at intervals of a few minutes, and kept up for about an hour, gave, in nearly all instances, decided relief; but I regret to add that, in a very short time, the sciatic pain returned, if not in redoubled intensity, certainly in unabated force.

Blisters have been found, by many Physicians, to do good in sciatica. In my hands they have not been so fortunate. I do not now refer to blisters which have been dressed with certain alkaloids, for, in such examples, the cure effected could not be attributed to "surface-irritation." But the ordinary blister, whether produced by the hot-water method or by emplast. lyttæ, or by acet. cantharid., has not, in my practice, done enough service to warrant its general employment in sciatica. I have tried blisters over the exit of the sciatic nerve, and long strips of blister along the course of the nerve, with no adequate favourable consequence. In most instances they somewhat diminished the pain, in no instance did they remove it, and in one patient they seemed to intensify the suffering; at all events, while the irritation of the cantharides occurred, and before the epidermis was "raised," the patient complained that his "rheumatics" was far worse than before; this, I own, may have been mental irritability, but I cite it as an apparent consequence.

From plasters (curiously enough) I think more good may be expected. The ordinary pitch-plaster or the emplast. calefaciens (if not too strong) is the best, but I prefer the former. It should be large (about 12 by 4 inches), should be well warmed before being put on, and should be worn for several days. I don't know how to account for it, but I am sure that the patients have nearly always expressed themselves as decidedly relieved by use of the pitch-plaster. Dr. T. King Chambers, in his capital clinical lecture on sciatica,(c) expresses his disbelief in the supposed irritant action of this plaster, and certainly there is good reason for his scepticism; but at the same time, I do not think that his explanation of the effects of the plaster is strictly satisfactory. He thinks the effect is due to the warmth produced by a covering of a large piece of leather. Dr. Chambers very properly points out that the sciatic is the largest and most exposed nerve in the body, and that it is particularly liable to be affected by changes of temperature, seeing that it is so badly protected. To this view I would urge the following objections:—(1.) Between the nerve and the surface there is besides the ordinary tissue (dense non-conducting skin and fat) a layer (so to speak) of blood kept at a constant temperature, owing to its rapidity of renewal; it is difficult to imagine then that by any outward presence of cold air heat could be directly abstracted from the trunk of the nerve. Of course I do not for a moment doubt that intense cold applied to the surface would at once affect the sciatic nerve, but what I mean is that this cannot (in the average limits of variation of temperature) take place directly. (2.) I have not found that by making the patient wear immensely thick flannel drawers the effect was to be compared with that of the plaster. (3.) The plaster which acted most efficiently (and, indeed, infinitely better than the ordinary emplast. picis) was that which is sold in the Gilman's shop under the name of "Poor Man's Plaster," and in which the resinous substances are spread on either paper or very thin calico.

Acupuncture has been much employed, especially on the Continent and in America, in the treatment of sciatica. A more extended trial of it may show it to be useful in this and in other affections, but at present, so far as my knowledge of the plan goes, it is not to be relied on. It is troublesome and painful. In the case in which I tried it I used a little piece of apparatus which I saw described, I forget where, some time ago.(d) But, as I have said, I do not think any good resulted from its use. I have heard since that acupuncture with an instrument of the kind has been used as a means of introducing croton oil into the skin, and so setting up severe "surface-irritation," and with good results, but I confess I have not yet tried it.

The last method of surface-irritation of which I will speak, as it certainly is the last I should like to employ, is the "actual cautery." I don't believe the actual cautery as used in human Medicine to be of the slightest service in the treatment of sciatica. Possibly if we employed the iron at the same low temperature, and over the same extent of surface, as the veterinary Surgeon uses it in "firing" a horse, it might be more useful. I should like to know more on this point. But as it is now tried the method terrifies the patient, sometimes disturbs his digestion (why I cannot say), and does him not the slightest particle of good.(e)

The second group of remedies applied to the surface is that included under the term "blood-letting." I am so distinctly opposed on principle to anything like a removal of blood in dealing with sciatica that this method is one to which I have not given any extended trial. I have, however, in the country seen blood-letting attempted in the case of stout men who were suffering from "rheumatics," and I must say that the impressions I bore away with me were not favourable ones. Irish farmers bleed their calves in order to increase their appetite and thus fatten them, the increased desire for food being out of proportion to the blood lost. This may account for some of the good consequences of bleeding in sciatica; but I certainly should not advise any one with a regard (if not for his patient) for his reputation to attempt using either the cupping-glass or the leech in the treatment of this disease.

In the third section of surface remedies we come to the most interesting, as it certainly is the least understood of all the departments of modern therapeutics—that of electricity. A series of circumstances has led to this—I must write the word—ignorance on the part of Medical men, not merely of the physiological action of electricity, for that is intelligible enough, but of the commonest principles and facts, without a knowledge of which the use of electricity may be as dangerous as in skilful hands it is beneficial. Firstly, for years past electricity, which, we are told, "is life," has been in the hands of quacks and charlatans, and this fact has very naturally prejudiced sensible men against it; secondly, the two chief authorities on the subject, Remak and Duchenne (we omit Bendikt as being a later writer), took diametrically opposite views as to the forms of electric vibration to be employed; thirdly, Hospital teachers neglected teaching their pupils the use of electricity in disease; and fourthly, the application of the remedy is so tedious and troublesome that it would "not pay" either the Physician or the general Practitioner to administer it himself, and he has seldom a skilled operator at hand.

The terms electricity and galvanism are employed with fearful vagueness by some Medical men, and we fancy that there are not a few who think that all forms of electricity are alike, and that a little box with a handle that is turned round and round and a pair of chains or wires embody the materia medica of electric therapeutics. This is greatly to be deplored, and I cannot but think that if the terminology so well described and so forcibly insisted on some years since by Mr. J. Netten Radcliffe were always followed, especially by instrument makers, much ambiguity would be avoided, and much benefit to science would accrue. Thus the ordinary friction electric machine, the type of apparatus for producing static electricity, being that with which the name of Franklin has been so well associated, and being styled Franklin's machine, we get the word Franklinisation to designate its employment in Medicine. Similarly the ordinary galvanic battery in which the reactions of certain chemical solids and liquids are made to develop electricity—which is termed dynamic—having been connected with Galvani's discovery, the word galvanisation is used to express its application to a patient. Lastly, we have that curious combination of a mild galvanic battery and the induction coil, which was Faraday's great discovery, whose effects are so valuable in certain nervous affections, and the employment of which

(c) See Dr. Chambers' "Clinical Lectures," originally issued under the title of "The Renewal of Life": published by Churchill and Sons.

(d) It consists of a metal cylinder having within it a piston of wood, working easily and provided above with a wire spring, which, when a catch at the end is disengaged forces the piston below the orifice of the cylinder. The lower end of the piston has projecting from it a number of needle points. The mode of using the instrument will be obvious.

(e) It may be worth mentioning that all pain resulting from the iron may be prevented by first freezing the skin with the aid of Richardson's ether spray apparatus. This in no way interferes with the production of a good eschar, but it entirely prevents the pain though not the fear of the patient.

is styled Faradisation. Here, then, are these simple words, uniform in their derivation, each expressing distinctly a particular therapeutic mode of using electricity, and I will ask why are they not invariably employed by Medical men in their writings? Students like to worry their brains about the complexity of the laws of induction, and questions of resistance and tension and so forth, and puzzle themselves with the terms static and dynamic; but if the three words referred to were invariably used the busy practical Medical man need no more trouble himself about the difficulties of electric science than he need bother his mind about spherical aberration, indices of refraction, and laws of deviation, because he wants to examine a urinary deposit under his microscope. I have digressed thus from my present subject in the hope of helping to make a matter which some think recondite appear tolerably simple. In summing up, therefore, in aphoristic form the remarks made above we may say—with the old electrical machine we Franklinise, with the galvanic battery we Galvanise, and with the induction coil (whether galvano-induction or magneto-induction) we Faradise.

I have tried each of these three modes of using electricity in the treatment of sciatic pain, and with some very instructive results(f), and in the first instance I will speak of Franklinisation. There are three principal methods in which static electricity may be applied—(1) Sparks may be passed from the machine to the painful part, the patient remaining in the ordinary (uninsulated) position; (2) the body may, so to speak, be charged through the affected part, the patient being placed on an insulating stool; and (3) a shock may be given by the discharge (with the discharging rod) of a Leyden jar (or more than one, the extent of surface being considered). Of these three, I must confess that the only ones I have tried have been the first and the last. It should be added that I have not given the subject that extended trial which is necessary to forming definitive conclusions. Still, I may say that so far as I have employed static electricity the result has not led me to hope for much from Franklinisation in sciatica. In one case where the effect of the passing of sparks from the prime conductor produced a good deal of reddening of the skin, accompanied by pain—where, in fact, surface-irritation had taken place, there appeared to be some little relief afforded, but then the case was not a very severe one; and even admitting that relief was obtained, it must, I should think, be attributed rather to the congestion of the papillary blood-vessels than to any direct soothing influence of the electric vibration upon the nerve. From some remarks which I once heard from Dr. C. B. Radcliffe, I fancy that if the practice of charging the body from the machine were given a full and fair trial valuable results would be obtained; but so far as my individual experience has gone I have not found static electricity of any practical use.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

BLOW WITH A SKITTLE-BALL ON THE HEAD—FRACTURE OF SKULL WITH LACERATION OF MIDDLE MENINGEAL ARTERY — EXTENSIVE INTRA-CRANIAL HÆMORRHAGE—DEATH.

(Under the care of Mr. T. W. NUNN.)

Instances of severe and even fatal injuries caused by blows received from cricket-balls are sufficiently common; indeed it is not many days since a well-known professional cricketer died from the effects of a blow on the head with the ball in a grand match at Lord's Cricket Ground. But a rap on the head with a skittle-ball is happily a less common accident, and it may be useful therefore to put the following case on record.

Henry T., aged 27, whilst playing at skittles was smartly struck with the ball on the right side of the head. This happened on the evening of May 17. He went from the skittle-ground to a public-house, where he stayed some while drinking and talking, and slept there all night. Next morning he was found insensible, could not be roused, and was at once brought to the Hospital. On admission he was in a state of profound coma and died almost immediately, nothing having been detected beyond a soft swelling on the side of the head. At the autopsy, which was performed by Mr. Morris, the Surgical registrar, on the next day, the following notes were taken:—Body well nourished; deep lividity of depending parts extending round arms, neck, and ears. Small skin abrasion over right hip, and one or two smaller ones about each knee. Externally a soft tumour could be felt on the right side of the median line of the scalp, capable of being moulded by pressure with the finger, but nothing like depressed bone could be felt. On reflection of the scalp forwards a dark patch of ecchymosis, and a little fluid blood was at once seen in the right temporal region, and on scraping the bone a crack was seen running upwards and forwards, and curving towards the top, but without any displacement of bone. On removing the calvaria it was noticed that the skull was remarkably thin, and thinner on the injured than on the left side; at the seat of fracture, in the centre of the squamous portion of the temporal bone, the thickness was about one-eighth of an inch, and posterior to this not more than three lines. Immediately beneath the bone and outside the dura mater was a large clot, extending over nearly the whole side of the skull and compressing the brain so as to leave a large concave depression on the right hemisphere when the clot was removed. This clot weighed $4\frac{3}{4}$ oz., and measured 5 by $3\frac{1}{4}$ inches. The source of the hæmorrhage was the posterior branch of the middle meningeal artery, which had been torn at the seat of fracture. The fissure extended downwards to the petrous portion; the part of this forming the roof of the internal ear was very thin, and a piece as large as a hempseed had been punched out, exposing the small bones of the ear. The viscera generally were quite normal.

Of course, the extremely thin skull was the condition leading to so unhappy a result in this case. From the history of the blow and the man's subsequent conduct, the diagnosis would not have been very difficult, the usual interval between the receipt of the injury and the supervention of coma pointing pretty clearly to slow effusion of blood from a torn vessel outside the brain, and if the man had been brought to the Hospital earlier he might have furnished one more to our small list of successful trephining cases in the present day, but he died before anything of the kind could be done for him.

BIRMINGHAM GENERAL HOSPITAL.

CASE OF PRIMARY DISSEMINATED CANCER OF THE LIVER.

(Under the care of Dr. RUSSELL.)

The case from which the following report was taken affords an instance of the more rare form of hepatic cancer, the form in which the cancerous tissue is disseminated through the liver in place of being collected in separate masses. In the present case the liver exhibited, in almost its greatest dimensions, the enlargement which is so common in cancerous disease of that organ. I have not found a case in which a greater weight than seventeen pounds and a half was actually registered, though the weight of twenty pounds or more is mentioned by Frerichs and others as being occasionally attained.

The patient was a male, his age was 61. The liver was of enormous size; its weight was sixteen pounds and a half (avoirdupois). It measured 14 inches in transverse, $10\frac{1}{2}$ in vertical diameter. It had preserved its general shape, excepting that the right lobe was disproportionately large. On either side it had projected outwards the lower ribs; above it ascended into the thorax to the level of the fourth rib, tilting the heart so that its apex pointed more than an inch to the left of the mamma, compressing the left lung between the heart and the ribs, and concealing from view the right lung, which was further confined by adhesions to the ribs. Below the liver crossed the umbilicus; it had materially depressed the stomach, which lay behind the left lobe in the left lumbar region and left side of the umbilical region; the transverse colon crossed the abdomen below the navel; the spleen, which weighed only two ounces and a half, was pressed backwards against the heads of the lower ribs; the small intestines occupied the hypogastric and pelvic regions.

The surface of the liver was perfectly uniform, smooth, and free from adhesions. Nearly the entire right lobe, with the exception of a small slip on its left side, was of a pearly white colour, and presented throughout the appearance of minute

(f) There are two very useful English books which those interested in Medical electricity should read—Dr. C. B. Radcliffe's "Epilepsy, Pain, and Paralysis" (Churchill), and Dr. J. Althaus's "Medical Electricity" (New Edition, 1870. Longmans).

lobules, resembling the ordinary lobules of the liver, excepting that they were nearly of double size, and more distinctly marked than usual; the morbid tissue was very firm and elastic on pressure, and cut with a crisp sound. A separate mass, the size of an orange, of a similar tissue, existed in the middle of the left lobe, extending to its anterior surface, and one or two small masses were discovered in other parts of the organ. The remaining portion of the liver was of a deeply bilious tinge, and was thickly marked with minute white spots, the size of a small pin's head, which were present in every part. By the microscope the dense white portion was found to be entirely free from all traces of the ordinary hepatic cells; it exuded a scanty quantity of opaque juice, which consisted of cells varying in size from $\frac{1}{500}$ to $\frac{1}{1000}$ inch in diameter, containing minute nuclei; some were fusiform, the greater part more or less circular. The chief substance of the tissue was composed of fine fibrous tissue in delicate but strongly marked bands, mostly running in a remarkably straight course, crossing one another in every direction, so as to leave between them interspaces of various extent; the tissue opposed strong resistance to tearing by the needles. In the other parts of the liver, the hepatic cells presented their ordinary character, excepting that they were unusually tinged with bile; but everywhere the cells described above were seen intermixed among them.

The abdomen contained a considerable quantity of clear fluid. All the other organs of the body were quite healthy.

The clinical history of the patient is very imperfect. He dated his illness a few months back, but no accurate data were attainable. The symptoms were simply negative, consisting mainly of progressive loss of strength. He complained of pain across the abdomen, but had no vomiting. His bowels were much constipated. When he entered the Hospital, a month before his death, his skin and conjunctivæ were faintly jaundiced; and during his residence the colour somewhat deepened. His urine was free from albumen. Progressive wasting, and finally anasarca, led to death by asthenia.

DISPLACEMENT OF THE SEVENTH CERVICAL VERTEBRA; INJURY TO THE CORD; EXTREME CONTRACTION OF THE PUPILS.

(Under the care of Dr. RUSSELL.)

The patient was admitted into the Medical ward of the Hospital, as no injury was discoverable, and was retained there. The chief point of interest consists in the contraction of the pupils, which was observed during the patient's life. The account he gave of his tendency to sleep-walking is also curious.

The patient, aged 51, had been at work in the field until a late hour. In the middle of the night he got up in his sleep, walked to the door, and fell down stairs. He was utterly unable to rise, and lay for six hours on the floor, until help could be obtained. He told us that he was a sleep-walker when young, and he added that at the present time when very weary with his work, he would fall asleep and continue to walk along the street as he slept. He was admitted three days after the accident. I only saw him on the day before his death. At that time he presented the usual symptoms of injury to the upper region of the spinal cord, excepting that there was absence of priapism. He had complete paralysis of motion and sensation in his lower extremities, but the muscles responded moderately to faradisation. Respiration was entirely abdominal. The patient complained much of difficulty in raising the phlegm, his cough was very ineffectual, and at each effort shook his arms by involving the pectoral muscles. There was partial anæsthesia of the trunk, diminishing towards the upper part; numbness and slight impairment of sensation in the arms, together with lessened muscular power. Opposite the light the pupils were almost as small as a pin's point; and blindfolding, or any means of excluding light, effected but very slight increase in their diameter; no vascularity of the globes. Pulse 84, regular; respiration 34, accompanied by loud rattles, which quite concealed the cardiac sounds. Temperature on the day before death: In the morning—right axilla, 102·6°; right leg, 100·6°; in the evening—left axilla, 102·6°; left leg, 100°. Scratches on the lower extremities produced very slight and tardy vascular fulness. The urine was retained, as it had been since the accident; it was acid, and free from albumen. A bedsore was beginning to form over the sacrum. The patient died on the morning of the sixth day from the accident.

On post-mortem examination, we found the seventh cervical vertebra completely separated from the first dorsal. There was only a small quantity of blood in the vertebral canal, chiefly as thin clots or as effusion into the cellular tissue of the canal. The membranes of the cord were entire. The posterior half of the cord, comprising a length of about three-quarters of an inch, the chief part of which belonged to the cervical enlargement, was pulpy and mixed with extravasated blood; from this portion a pink discoloration ran up the central part of the cervical enlargement for another inch. Passing downwards from the cervical enlargement, a considerable ecchymosis existed in the centre of the cord for the extent of an inch, and thence ran down as a thread-like process for the length of another inch. I am informed that the other organs of the body were healthy, excepting that the lungs were much engorged, and that there were traces of limited recent pleurisy, and of extensive pleurisy on a former occasion.

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Medical Times and Gazette.

SATURDAY, JULY 16, 1870.

THE PRESENT CRISIS.

If the Medical Profession is to be heard on the subject of the Medical Act (1858) Amendment Bill in the House of Commons no time must be lost. On Wednesday the Bill was read a first time, and the second reading was to be taken on the following day. If the Bill pass in its present positively mischievous form it will be no less our fault than our misfortune. The crisis is so important that we make no apology for repeating once more what we have repeated each week since that in which the character of Lord de Grey's amendments was first made known. The omission of clause 18, and the permission that omission gives to the nineteen examining boards to grant Medical diplomas to unlicensed persons is utterly subversive of the great principle on which the measure was announced by the Lord President to have been founded, and the Bill thus mutilated, instead of benefiting the Profession by giving it union and uniformity, will only plunge us into greater confusion than ever. It will confer no single benefit upon us unless it be the very questionable one of placing a learned Profession under a department of the Government. It leaves every avenue to the Profession which has hitherto existed, whether they be highways or byways, still open, and only adds new ones. The clause for the prevention of practice by unlicensed persons is in the opinion of competent lawyers utterly insufficient, and has in fact been acknowledged to be so by the author of the Bill in the House of Lords. The Bill if it become law—if words mean anything—will prevent the rejection by the legally authorised examiners of any homœopath, hydropath, or mesmerist, who, when examined, shall declare that he would treat disease according to any of "these particular theories" of Medicine or Surgery. The Bill leaves the constitution of the General Medical Council untouched, whilst it gives that body far greater powers than it has hitherto possessed. With all these glaring imperfections in it we maintain that it

should not be allowed to pass the House of Commons without that full discussion and amendment which it certainly did not receive in the Lords. The Bill might yet be made a good and acceptable measure, but this cannot be done if it be passed in a hurry. If we are told, therefore, that the exigencies of public business require that a measure so important to a great and liberal Profession be postponed for consideration in the chief chamber of the Legislature until the last few weeks or days of the Session, we answer that then it had better be postponed for that Session altogether. Any delay would be better than an imperfect Bill involving a succession of Medical Amendment Bills. On this point the Medical Profession have a right to be heard, and we urge them to insist through their representatives in the House of Commons that the Bill should be fully and thoroughly canvassed, that the opinions and wishes of the Profession should be clearly and fully explained and discussed, and that the measure, at least in its main points, should be brought into unison with those wishes. Failing this we entreat our readers to oppose by every constitutional means in their power the passing of this Bill.

We are glad to learn that the College of Surgeons of England is still determined to obtain the re-insertion of clause 18 of the original Bill, or to prevent, if possible, the success of the measure. We hear also that Dr. Brewer will endeavour to obtain a change in the constitution of the General Medical Council, or, failing this, he is prepared to oppose the Bill. The British Medical Association have also determined to petition Parliament in favour of the direct representation of the Profession in the Council. Direct representation we believe to be undesirable and unattainable, or, if attainable, it can only be got at a price which the Profession ought not to be called on to pay. But we think that any Bill which leaves the constitution of the General Medical Council untouched will not be satisfactory to the majority of Medical Practitioners. The Council must be put on a broader basis, and the Profession ought to have some voice in electing the representatives of the bodies to which they are affiliated. It is one, but not in our opinion the greatest, fault in the Amended Bill, that the General Medical Council, with enormously increased powers, is still to be in no degree representative of the Profession for which it is to legislate. It will not do to say that at some future time another Bill remodelling the General Medical Council shall be brought before Parliament. The Medical Profession wishes a Medical Reform Bill, not a succession of Bills. It requires a moderate measure, but a complete one.

ON THE PRESENT VIEW OF THE CONDITION CALLED MALIGNANCY.

It is before all things necessary that every doctrine, or variety of doctrine, which is introduced, should be tried with this rule by those who are asked to receive it—*How far would it have gone in leading us to the light which we now enjoy?* Let us remember how it is that changes occur in our fundamental views from generation to generation, because we let drop some good views to reach others. Alterations of method in things that are not capable of perfect method are especially suspicious and questionable," because the present method must leave some portion of the subject unprovided for or imperfectly provided for; and any scheme proposed which commends itself by well suiting itself to these present difficulties will seem acceptable as remedying a felt evil. Meantime, as no method can entirely cover the subject, the scheme proposed will fail somewhere, and it will probably fail in some point which our present method is well adapted to, so that at best we shall only make an exchange of difficulties, and may not lighten our load in the barter. For difficulties of this sort are little felt by anticipation; they need be experienced to be appreciated sufficiently.

We make these remarks because just now there is a strong disposition to seek some new stand-point wherefrom to view the facts of pathology—a restlessness which induces a feeling of discontent, unless we find that what is now taught and known is considerably different from what was taught and known ten years ago.

Not that there is much fear of a blind subversiveness making real way; but it is well to convince ourselves that things do not easily undergo important changes in pathological science. The course of it has been on the whole very steady and expansive. Its roots reach out of sight into the history of the last century where we can scarcely trace them. Its stem and branches are well sustained, and the leaves which enliven it as the expression of its present activity, and perhaps make the most show, are the only parts which prove deciduous, and mostly drop to make manure for the next growth, leaving a small gain of new wood blended with and slightly enlarging the old, but mostly hidden from superficial observation.

Let us, as an example, take up the present difficulties in using the facts and theories that make up the doctrine of malignancy.

It is at present most desirable that we should agree to fix a decided and mutually well understood meaning to the term malignant. At present the term conveys to our minds very vague ideas about the nature and probable future of the formations we apply it to.

The word originally was used to signify no accurately characterised features of disease, but only to express an evil disposition in it, and we still detect the same notion of the force of the word in the habit of applying it at any time to all tumours of the brain, stomach, and other vital parts, without regard to the scientific characters of these tumours, the word being employed as an equivalent to malicious, in a sense generally condemnatory of their baleful properties. At present there is a sort of triangular struggle for the word between this old vague meaning and two other distinct meanings, of which the first seeks to define it down to certain points in the history of infectious tumours, and the second would enlarge it to include such grave diseases as, like pyæmia, tubercle, etc., have certain prescribed analogies with the infectious tumours.

The Pathological Society's Committee on Morbid Growths have made a bylaw which entirely excludes the word malignant along with the word cancer from their reports on the specimens submitted to them. But through fear of the vaguer meanings of the word we must not forbear from its definable meanings unless we possess other means of easily conveying what is substantially valuable in the scope of the word.

Let us look more in detail at its import. In its strict meaning, as applied exclusively to tumours, the word signifies these four facts or prophecies concerning any tumour:—1. That it will spread to neighbouring tissues. 2. That it will recur after removal. 3. That it will extend to the lymph-glands. 4. That it will extend to remote parts, especially the lungs and liver. Now, whatever view we have of the nature of malignant growths—whether we consider them "constitutional" or local in their origin—no doubt these facts that evince malignity are facts pointing to infection.

But the two first characters—recurrence on removal and extension to neighbour tissues—are more striking in tumours than in other diseases on account of their physical form, their mass, etc. It is because they are obvious lumps of unnatural matter that they are removed, and their removal must happen to give them the chance of recurring. Extension to neighbouring tissues is observed very readily in the case of tumours; it at once attracts the attention when scirrhus of the breast invades the pectoral muscle. A common sore on the other hand is a thing that one would not remove, and if one did remove it, one would not be furnished in the sore that resulted

in the wound, with such marked characters in identification of particular bad nature in the sore, as one has forced upon one in case of recurrence of tumours. And again, if an ordinary ulcer runs from the skin down to attack the bone, one is not accustomed to see in this more than a spreading tendency, which one is content to regard as a vague badness in the ulcer.

If now we conclude that these first two characters have an accidental importance in the case of tumours, which is due to the circumstance—unessential as regards the question of "constitutional" or "infectious"—that they are masses prominently obvious, and calling for removal, then there remain the other two characters as denoting malignancy—namely, extension to lymphatic glands and extension to remote parts, especially certain viscera; and we must see that many tumours reach the viscera without ever affecting the glands. Many most malignant tumours do so. If disregarding prejudice and stripping off unessentials we now take pyæmia, and probably tubercle, and estimate them by these two characters, as the characters are shown in the history of tumours, we are not able to exclude pyæmia and tubercle from this more inclusive notion of malignancy. For in either case we find that—say in pyæmia from suppurating wound or general tubercle along with old tuberculous testis—there is the original site of the disease, and there are similar diseases set up elsewhere. True pyæmia will rarely affect the lymphatics and glands, though it will sometimes. But this is true also of medullary sarcoma, and on the other part tubercle nearly constantly invades the glands.

We thus see a close resemblance, nay an identity of these diseases under the characters that constitute malignity. Suppose we consider the malignant tumours from the point of view pyæmia affords.

In truth, pyæmia itself has become a very double species. There cannot be a question that in many cases that are called pyæmia because of secondary abscesses in the lungs or liver, these abscesses are set up by emboli; that is, by clots imported or rather injected into the lung or liver with the blood, which has brought them from the original seat of disease. These emboli can be seen if they are followed up and searched for. This is certainly true in some cases, and several great authorities believe it is true of all secondary abscesses. But we think this cannot by any means be true of the pyæmic suppurations of the joints; here surely it is impossible to hold that plugs have got round through the lungs, and then arranged to invade many joints to the exclusion of other parts, and it is certain that when joints are attacked other parts generally escape. The idea of an association of this with rheumatism is irresistible; and the not infrequent valvulitic endocarditis which accompanies pyæmia, aids to the conviction that these articular pyæmias play on a rheumatic system with exaggerated severity.

Now, when we see in pyæmia itself two distinct kinds of metastatic spread, does not this argue that we are not to look for one simple source of generalisation in other generally malignant diseases, such as tubercle and cancer? Unquestionable evidence of the embolic spread of cancer we have ourselves often seen, and so an identity between the means as well as between the characters of the general spread of malignant tumour and malignant pus through the system is established as regards these embolic cases. But, as we are forced to admit rheumatoid pyæmia besides that distinct from the embolic, must we not expect to have to admit a quasirheumatoid cancer corresponding to that other sort of pyæmia, and, like it, founded on some relations of the tissues affected, such as unite them in special tendencies to disease? We might carry the same reflections into the history of tubercle, especially that part of it which is stirring most interest at the present day—namely, the question whether there is secondary as well as primary phthisis. But our space prevents us entering further on these interesting topics.

BABY-FARMING.

It is curious and a little amusing to observe how suddenly the public mind seems sometimes to wake up to the consciousness of social disorders the existence, if not the full extent, of which it has for a long time been quite aware of, but which it has been convenient to say as little about as possible. A better illustration of this phenomenon could scarcely be adduced than the fuss which is being made by the daily journals over the recent affair at Brixton. Astonishing to relate, the police have discovered a baby farm where illegitimate infants are taken in and done for *secundum artem*. It has also been astutely discovered that there are places in London where young women who have forgotten themselves may be clandestinely delivered, and that the former class of establishments constitutes a sort of complement to the latter. Possibly, the authorities in Scotland-yard may in due time arrive at another little discovery—namely, that a bright and respectable exterior, and the frequent appearance at the door of an unexceptionable equipage—albeit that of a Medical gentleman—is no guarantee for the innocence of the deeds done within. Virtuous horror is a cheap commodity, and one cannot wonder, therefore, at its lavish expenditure in the present instance. The pity is, that, being so cheap, it has been hoarded so long. Can it be possible that the Home Office and the Chief Commissioner of Police have only known within the last few weeks of the iniquities and homicides committed under the fair pretence of shielding frailty from dishonour, and providing a mother's care for the offspring of illegitimacy? It strikes us pretty forcibly that some of our *confrères* could a tale unfold not very creditable to some who now profess to be deeply shocked. Truly the public conscience is of a most complex organisation: we commend it to the study of the learned Professor of Casuistry at Oxford.

The Brixton scandal exhibits most of the prominent features of the disease which has for a long time past been corroding our public morality. To take the facts briefly in something like chronological order, we are first introduced to one Mrs. Castle, whose husband keeps a china shop at 164, Camberwell-road, but who assists the domestic income by "receiving females under peculiar circumstances." This lady, it seems, rejoices in the *alias* of Barton, and calls herself a midwife. No doubt the house kept by this lady is intensely respectable; there is not a whisper of impropriety attaching to it. A young woman of the name of Cowan was confined here, and the birth was duly registered; yet she left the baby behind her when she went back to her house. That the young woman should take her baby home, and proclaim her indiscretion by nursing it there herself, was, of course, quite out of the question; so her father accordingly looked out for a wet-nurse to bring up the child, and while doing so a lucky chance befel him, for he saw in Lloyd's newspaper an advertisement. One Sergeant Relf, of the W division of the police, had seen the advertisement too, and had seen Miss Cowan leave the china shop, and traced her home, and, as it happened, both he and Mr. Cowan replied to the advertisement. It ran thus:—"Adoption.—A good home, with mother's love and care, is offered to any respectable person wishing her child to be entirely adopted. Premium £5, which sum includes everything. Apply by letter only, to Mrs. Oliver, Post-office, Grove-place, Brixton." Could anything be more touching? Another advertisement by the same person ran thus:—"Adoption.—A respectable married couple wish to adopt an infant from the birth or month; good home; premium £4. Address, Mrs. Watson, Wieland's Post-office, Walworth-road." Who could doubt for an instant the sincerity and depth of the maternal affection purchasable for such a sum? Mr. Cowan did not; he showed thereby the simplicity of his heart and his confiding disposition. One Mrs. Grainge, who had a sister's illegitimate infant on her hands, was also attracted by the promising advertisement, and both

she and Mr. Cowan at different times sought interviews with the advertiser. Gushing interviews they must have been; lavish promises and expressions of maternal tenderness on the one side, innocence and childlike faith on the other, such as must have been most refreshing to behold in this age of shams and hypocrisies. There could be no great difficulty in striking a bargain here, when one knew she could get the child, and the other was only too glad to be rid of it. That Mrs. Oliver, or Mrs. Watson, or Mrs. Willis, or whatever the other *aliases* of the lady about to adopt the baby may be, should be unwilling to say where she lived, was no impediment in either case. Miss Cowan's baby and Miss Still's baby were handed over with £2, instead of £4, as a premium, just as something like forty children had been handed over before to the same philanthropic lady. Police Sergeant Relf, not having a baby to dispose of, and possibly having a deeper knowledge of the world, when he had his interview with the advertiser, on her declining her address, had the curiosity to follow her home to 4, Frederick-terrace, Brixton, and there, on a subsequent visit with Mr. Cowan, he found a baby farm. Mrs. Waters' maternal fold was found to be co-extensive with the largeness of her maternal instinct. Miss Cowan's infant was discovered with five others, from three weeks to a month old, huddled together on a sofa in a front kitchen, all very dirty and emaciated, and some narcotised or dying. Five older children, and in better condition, were also found. When asked to account for the difference in condition, Mrs. Waters naïvely replied "I receive so much a week for these." The food of the babies was corn flour and water, a little milk, the sourness of which was corrected with limewater, and paregoric. Notwithstanding every care, four of the infants have died since this excellent baby-loving lady has been taken into custody.

To us all this reads like an oft-told tale. It reveals a business which has long been carried on in London and other large towns in the kingdom—the business of baby-killing, where a fixed sum for adoption is paid down, and of baby-rearing on the most economical principles where a weekly dole is forthcoming, which makes it worth while to protract the infant's existence. When Parliament has adjusted to its satisfaction the relations of landlord and tenant in Ireland, and has hedged round the religious susceptibilities of parents who have children to educate in our parish schools, it may possibly find time to consider such a trifling affair as the systematic slaughter of the innocent children "adopted" by such creatures as Mrs. Waters. When this time shall arrive, we should suggest a thought being bestowed upon some of the schemes put forth by Mr. Acton. It will be found then that the Profession which we represent has long been raising its voice against these outrages upon morality—a voice which might have been heard had it not been drowned by the din of party politics, or fallen upon ears which will drink in with avidity the petty disputes of religious controversialists, but are deaf to appeals directed to the national conscience.

THE TREATMENT OF LUNATICS.

Dr. T. L. Rogers, the Medical Superintendent of the County Asylum, at Rainhill, in Lancashire, has devoted a considerable portion of his last annual report, which has just been published, to a vindication of public asylums against the aspersions which have been lately cast upon them. In doing so we think he has undertaken an almost unnecessary task.

The cases of fractured ribs which served for the pretext for the onslaught on asylums—of which by the way only fourteen, the large majority of these being unquestionably accidental, have been found to occur in a period of twelve years, and a total of 2500 deaths in public asylums—were sufficiently distressing, and suggested the necessity of careful inquiry, and some administrative reforms. They did not, however, by any means justify the sweeping condemnations of asylum officers and management by which they were followed. Misadventures are inevitable in asylums as elsewhere. Vice and violence cannot be excluded from them. Fractured ribs must from time to time happen in them. To argue, however, from the occasional occurrence of such casualties that habitual cruelties are practised in asylums, and that the Medical officers are cognisant of these, is disingenuous and absurd.

"Admitting even the fact," says Dr. Rogers in the report which lies before us, "that patients have at different times been done to death by the gross and brutal violence of certain attendants, in common justice, is that sufficient ground for assuming that it is a recognised mode of treatment?

"There are," he continues, "in England and Wales 2500 men and women employed as attendants upon the pauper insane. Are all these to be branded as inhuman and brutal because one in a thousand is convicted of crime? With as much justice might a whole regiment be denounced as murderers because one private shoots the sergeant of his company.

"It should be borne in mind that madness recruits its most numerous victims, not from the temperate, the order-loving, and the law-abiding classes of society (though these are to be found among the number); that mental disease generally has the effect of developing the bad qualities and repressing the good by lessening the power of self-restraint; that constant association with persons of degraded mental faculties exercises a deteriorating influence on those who are submitted to it, and that Medical superintendents of asylums have no special opportunities of securing the services of persons who have a more just appreciation of the principles of the Christian religion, who are more imbued with the 'enthusiasm of humanity' than are to be found in the ordinary walks of life; but notwithstanding, I confidently believe that a large proportion of asylum attendants perform their duties with a conscientiousness and a singleness of purpose that would do credit to any class of the community, and the kind expressions towards attendants contained in the numerous letters that I receive from discharged patients, is evidence at least as worthy of credit as any statement made by 'ex-attendants' who have probably themselves been dismissed from their situations for misconduct."

An important and interesting addition to Dr. Rogers' report is that of the chaplain of the Asylum, who spends a great proportion of his time in the wards, and may therefore be supposed to know something of the condition of the establishment. The Rev. H. H. Higgins, a gentleman of high position and scientific attainments, who cannot be said to be imbued with Medical prejudices, makes this most satisfactory declaration:—

"An experience of nearly seventeen years leaves me able to state that I have myself never witnessed an act of cruelty to a patient, and I think I have never, or very rarely indeed, heard intemperate language addressed to them, nor have I in any way known of an act of ill-treatment which has not been officially reported and investigated."

When evidence of this kind is forthcoming, it is not likely that clumsy exaggerations will have very disastrous consequences. That, however, is not the fault of those who have raised the outcry. These have done their best to check and hinder that steady progress which our public asylums are gradually achieving in all matters bearing upon the safety, happiness, and recovery of their afflicted inmates. In this clamour has been ineffectual; but were such men not inaccessible to reason, we should endeavour to impress them with the responsibility which they have incurred in disquieting, without good cause, the minds of those who have relatives insane and shut up in asylums. As it is, we can only leave them until the march of events shall have shown their injustice.

THE WEEK.

TOPICS OF THE DAY.

The Medical Profession will be glad to learn that the Queen has been pleased to confer on Dr. George Burrows, F.R.S., late President of the General Medical Council, and Consulting Physician to St. Bartholomew's Hospital, the appointment of Physician Extraordinary to her Majesty. Dr. Burrows' high position

in his Profession needed not even this mark of the Sovereign's favour to enhance it. The appointment is a thoroughly satisfactory one. The Court Medical appointments of the present reign have, with scarcely an exception, been most heartily welcomed by the Profession; and this, the latest, affords by no means the least conspicuous instance of her Majesty's observance of the precept—Render honour to whom honour is due.

Last Friday's *Gazette* contains the announcement that Professor Lister has been appointed Surgeon in Ordinary to the Queen in Scotland, in place of the late Professor Syme.

Her Majesty's indisposition, caused by the heat and fatigue of the last few days, is, we are glad to hear, not of a severe character. She was sufficiently well to be able to travel to Osborne early on Thursday morning.

On Thursday, Mr. Cock concluded his term of office as President of the Royal College of Surgeons. Few of his predecessors in the chair have occupied it during a more eventful period in College history, and none have signalised their tenure of office by displaying a more just appreciation of the line of policy which must tend to make the College the most popular as well as the most powerful of the Medical corporations. We believe that the Fellows and Members owe mainly to the retiring President that the precedent has been established of summoning them in council to the support of the executive of the College when questions of grave public policy affecting the interests of the whole Profession are under debate in the Parliament of the nation. We hold this policy to have been a thoroughly wise one. We believe that it inaugurated a new era in the history of the College of Surgeons—an era of improvement, strength, and popularity. For this thoroughly liberal policy, we repeat, the great body of Medical men who are affiliated to the College are indebted to Mr. Cock. Of Mr. Cock's conduct in the chair on the various public occasions when he has presided it is scarcely necessary to speak. His fairness, temper, and urbanity have won him golden opinions. He retires from his important office with the best wishes of those over whom he has presided, whether in the Council chamber or in the theatre of the College.

At the meeting of the Council of the Royal College of Surgeons which was held on Thursday, the 14th inst., Sir William Fergusson was elected President, and Messrs. Busk and Hancock Vice-Presidents, of the College for the ensuing year. Mr. Lane had, we believe, previously expressed a wish that he should not be nominated. This, we believe, is the first occasion on which the Council of the College has declined to follow the rule of seniority in choosing its President.

The result of last week's election of Councillors at the Royal College of Surgeons is in many respects a satisfactory one. It was foreseen that Professor Wilson and Mr. Lee would in all probability be elected, and the numbers showed that they possessed a large majority of suffrages. Holding, as we have always done, that Professor Wilson has strong claims on a chair in the Council as a representative of those amongst the Fellows who owe success in the Profession not to schools or Hospitals, but to their own independent exertions, we look on his election with entire satisfaction. Amongst the candidates no gentleman had higher claims than Mr. T. Spencer Wells as an improver of the art of Surgery and a liberal Medical statist. The large number of votes he received affords certain ground for believing that success will at the next election reward his candidature.

It is said that the Council of the Royal College of Physicians intend to nominate twenty-five new Fellows in the present year. Many of them are said to be provincials, and several of the younger amongst the town Members are also said to have been selected.

In our advertising columns to-day will be found an account of the terms on which the Alexander prize is to be competed for. The subject of the next prize essay is "The Nature and Varieties of Destructive Lung Disease, included under the head of Pulmonary Consumption, as seen among Soldiers, and the Hygienic Conditions under which they occur." The essays are to be sent in on or before December 31, 1872. We beg to call the attention of our brethren in the Army Medical Service to this distinction, which will undoubtedly become the blue ribbon of the department.

To-night (Thursday) Dr. Brewer will move the second reading of the Sanitary Act (1866) Amendment Bill. This is a short Bill, but it is an important one. It is intended to amend the twenty-sixth section of the Sanitary Act of 1866, which relates to the removal of persons sick of infectious diseases and without proper lodging. By that section it was enacted that—

"When an Hospital or place for the reception of the sick is provided within the district of a nuisance authority, any justice may, with the consent of the superintending body of such Hospital or place, by order on a certificate signed by a legally qualified Medical Practitioner, direct the removal to such Hospital or place for the reception of the sick, at the cost of the nuisance authority, of any person suffering from any dangerous contagious or infectious disorder, being without proper lodging or accommodation, or lodged in a room occupied by more than one family, or being on board any ship or vessel."

Dr. Brewer's Bill provides that, for the purposes of this section of the "Sanitary Act, every Hospital or place for the reception of the sick situate within the limits of the metropolis, as defined by the Metropolis Management Act, 1855, shall be deemed to be within the district of every one of the nuisance authorities in the metropolis." This, it will be at once seen, gives an enormous power for good to nuisance authorities. Instead of being obliged to send a person suffering from contagious fever to a special hospital provided within the district of the authority, the sick person may be sent to any hospital in the metropolis, provided the consent of the superintending body of such hospital be obtained. This will be a great boon, and it will encourage the general hospitals to provide special buildings for the reception of persons suffering from contagious fevers. We are glad to learn that Dr. Brewer's useful little Bill will not be opposed by the Government. By carrying it through the House of Commons he will confer a real benefit on the sick poor, and greatly facilitate the action of Medical Officers of Health and Poor-law Medical Officers.

THE CAMP AT WIMBLEDON.

The field Hospital, which stands in a paddock commanding a fine view over Richmond Park, was not long without patients. On Sunday last, at mid-day, two Lanarkshire lieutenants presented themselves, having narrowly escaped with their lives from the fatal railway accident at Carlisle about 1 a.m. the same morning. One had decided symptoms of concussion, and both were considerably bruised and shaken; so they were forthwith deposited in bed, and properly cared for. They have now been discharged, sufficiently well to be left to themselves. Two cases of febricula among the volunteers, and two of slight wounds from fragments of lead rebounding from the targets among the regulars who were acting as marksmen, have also been admitted; and a boy is under treatment for a scald of the right arm and left eye, incurred by stumbling over a tent-rope into a camp-kettle. On the whole, the health of the large body of men assembled under canvas, many of them for the first time, has been remarkably good. There is very little diarrhœa, and none of any severity. Some fifty or sixty trifling ailments have been prescribed for.

The latrines, about which some anxiety was expressed in our last number, have not given any serious inconvenience. They require, however, constant inspection, and are examined daily by the Medical staff. The mode of carrying out the dry-earth system now adopted can only be made to work well by strict

attention; but it may be hoped that, with this, all bad results will be avoided.

Lord Elcho and Lord Ducie, who have taken temporary residences close to the camp, have shown great interest in the Hospital arrangements; and Lady Elcho has most kindly undertaken to furnish delicacies for the sick, if any should be required on emergencies, from her own kitchen. Mr. Secretary Cardwell paid a visit to the Hospital on Wednesday.

THE MEDICAL CLUB.

A GENERAL meeting of the Medical Club was held at the house of the club, Spring-gardens, on Wednesday. Sir William Fergusson first, and afterwards Mr. Erasmus Wilson, occupied the chair. A large number of members were present, and nearly two hundred letters from absent members were sent in relative to the business of the day. The point under discussion had reference to the change of the fees, entrance and annual, to be paid by members. A resolution was moved that from henceforth "original members, paying at present three guineas and one guinea, shall in future pay four guineas and two guineas a year, for town and country respectively." Ultimately the following amendment was moved and seconded:—

"That for the future the subscription payable by members shall be five guineas and three guineas for town and country respectively. Members whilst abroad shall pay only one guinea a year, but on their return to this country shall pay the full subscription of ordinary members, or, in lieu thereof, half a guinea a month for each month, or portion thereof, during which they make use of the club."

The amendment was carried unanimously, and what at one time threatened to be a warm debate ended in the most amicable manner. The new regulation will come into force in December next. The Club, at the present time, numbers about six hundred members, and a considerable addition has been made during the past few months. It is worth noticing, for the benefit of our American and Continental brethren, that, by a rule of the Club, they can, while in London, become, for the time of their stay, members of the Club, and secure in it a comfortable home during their sojourn amongst us.

THE EDINBURGH CHAIR OF MIDWIFERY.

THE storm still rages round the devoted heads of the Edinburgh curators. Meetings have been held, and newspaper articles written, and all, with scarcely an exception, condemn the appointment; and among them the occupant—we cannot call him quite fortunate—of the chair seems likely to meet with scant justice. We are no blind favourers of Dr. Alexander Simpson, and we are perfectly willing to, and do most readily, admit that Dr. Matthews Duncan's claims seem to have been superior to his. Nevertheless, Dr. Simpson is hardly the sort of man his adversaries would wish to make him out. If he is inferior to Dr. Matthews Duncan, those who know him are ready to maintain that he is superior to the other candidates. His appointment might be a good one had it not been possible to make a better. And here we come to the root of the evil. Men are intrusted with power which they have not the requisite knowledge to exercise, and those who know the wretched peddling spirit and the intense sectarian animosity which prevail in the Edinburgh Town Council will be the first to relieve them of a function they are incapable of fulfilling aright. Did they act merely as jurymen, allowing themselves to be guided by the superior knowledge of a judge, they might fulfil their electoral duties if not with credit at all events with no discredit to themselves, but what are we to think of such an elector as not many years ago registered a solitary vote for a most inferior man opposed to one equally superior, merely because the former was a Scotchman, the other being English? It is indeed time to relieve such men of such duties. Nor are we greatly in favour of these elections being left in local hands at all. Local interests are narrow, but they are much more powerful than are those of more extended scope, and when to this is added, as is almost invariably the case, the rancorous sectarian spirit which animates one religious body against another, we have some of the most dangerous influences which can guide the human mind. We had sooner entrust such powers even to a Liberal Government, which has in one recent instance shown that it can allow legitimate claims to override the shibboleths of party on the occasion of an excellent appointment in one Scotch university. In a meeting convened at the rooms of the Medical Society of London on Monday, Dr. Tweedie in the chair—a meeting, attended by many distinguished men, and by a good many chiefly distinguished by their attendance, it was resolved to attempt a reform of the Court of Curators in Edinburgh, and to secure a more extensive adhesion to their views by circulating the resolution for signature. On the whole, the speeches were moderate in their tone, and we heartily sympathise with their efforts to procure this reform. Those inclined to join in the movement may send in their adhesion to Dr. John Murray, 40, Bryanston-street, Portman-square, who was appointed honorary secretary.

ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION.

A GENERAL session of the association was held at Windsor on Thursday, July 7. Thirteen new members were elected. The day was brilliantly fine, and a large party spent a very pleasant afternoon in the royal borough. Nearly forty sat down to an excellent dinner at the Castle Hotel in the evening. The most noteworthy feature of the day's excursion was the visit to Eton College, where the members of the association were most kindly received by the Provost, Dr. Goodford, who pointed out and described the many objects of antiquarian interest in the library.

THE EPIDEMIC OF SMALL-POX AT PARIS.

THE terrible and obstinate character of the present epidemic is testified by the fact that for the week ending July 9 the deaths from small-pox mounted up to 267 from 210, the number of the preceding week. The total mortality was 1119. Last week a meeting was held between the Minister of the Interior, Préfet of the Seine, and the Committee of Hygiène, and among other resolutions come to was a request to the Académie de Médecine to reassure the public as to the value of revaccination at the present period, for the popular prejudice, fostered even by a few Medical crotchet-mongers, has widely spread that revaccination during the epidemic itself is attended with dangerous consequences.

"I am informed," the Minister says in his letter, "that one of the means—revaccination—recommended by the Academy as of the greatest efficacy, and which was at first accepted by the public with such eagerness, has for some weeks been less practised, and is now well-nigh abandoned. I therefore urgently inquire of the Academy whether it is not able to take some steps that may arouse the vigilance of the local authorities and the solicitude of families by issuing an instruction setting forth the utility of revaccination. Armed by the authority of the Medical Profession, I shall be in a better position to meet the exigencies of the situation, to stimulate zeal, and to realise, as far as I can, the views of protection and aid which are constantly occupying the attention of the Government."

The Academy, flattered by so appropriate an appeal, and seeing the urgency of the situation, determined at the instance of M. Tardieu to at once appoint a committee which should instantly report. Not that this reasonable procedure was without its objector, for M. Piorry strongly protested against it until the question had been thoroughly discussed in all its bearings. The Academy, however, aware that another interminable debate, resembling the one only recently completed, which has done so much harm by encouraging doubt and hesitation, would result, voted the committee *instanter*. This body withdrew, and at once prepared the following "Note on Revaccination," which was unanimously agreed to by the Academy:—

"The Imperial Academy of Medicine believes it of utility to

make the following public declaration, which it recommends to the attention of the Government and the public. 1. Vaccination is the preservative from small-pox. 2. Nevertheless after a certain time revaccination is indispensable in order to insure immunity. 3. It is absolutely exempt from danger; and the Academy formally repudiates all that has been said or printed to the contrary. 4. It is useful at all ages. 5. It may be practised without any inconvenience during the prevalence of an epidemic. Still more, it is a fact that in small localities, in the interior of families, in boarding schools, and other agglomerations of individuals, it has alone sufficed to arrest a commencing epidemic. 6. The present epidemic prevailing in Paris and in some other parts of the country, has furnished the most convincing proofs of the preservative power of revaccination. In several of the army corps, especially the Paris Guards, in several public and private establishments, and particularly in some of the municipal schools, variola has been extinguished under the influence of revaccination. Finally, the latest statistics, and notably those which have been collected in the Hospitals, prove in the most formal manner, that the small number of those persons who have been recently revaccinated who take small-pox have it very slightly, and do not figure among the deaths. 7. It is, then, of the highest importance in both the public and private interests to continue and extend the practice by every possible means.

It is humiliating to think that, at so remote a period after the value of revaccination has been proved beyond all question, such a document as this has to be put forth with all the weight of authority. In France, much of which exists as to the uncertainty, is due to the vagaries of some of the Paris Medical body; but really in regard to vaccination, few countries are able to say that they have done their duty. As to our own, we all know the wretched provision in existence before Mr. Simon supplied his vigorous help, and even now, when an expensive organisation seems well nigh complete, and we have before our eyes the triumphant success obtained in Scotland and Ireland by determined and efficient measures, we are threatened with the appointment of a Parliamentary Committee to inquire into the efficacy of and objections to vaccination! Everywhere, throughout Europe, wherever the testimony of those practically engaged in vaccination is obtainable, it is unanimous in its tenor, the only complaint being ill-regulated supplies of virus. Thus in Belgium, the Practitioners are no wise doubting, but they are naturally complaining when they find that the Government makes them pay exorbitant sums—of forty to fifty francs it is said—for virus, which proves quite inefficacious.

INDIAN MEDICAL SERVICE.

Complaints have been made for a long time past of the treatment to which our brethren are subjected by the Government. The Indian service, instead of being as it once was most popular, is now almost neglected. The system pursued by the Government has been such as to disgust men of ability and talent, and hence the low ebb to which the service has fallen. Our special correspondent, whose letter appears at page 74, is thoroughly acquainted with the entire subject, and he has treated it in a very able and exhaustive manner. It is not too late to retrieve the character of the service, and we trust the powers that be will take such steps as are indicated to them to save the honour and usefulness of the Indian Medical Service. We especially commend to the attention of our readers, the last paragraph of our correspondent's letter. The necessity of the open discussion of the subject, acknowledged to be very difficult, is clear. It is the only way that anything like a satisfactory termination can be obtained. We trust the hint may not be lost sight of.

FROM ABROAD.—THE ALPINE CONGRESS—MORTALITY RETURNS OF BERLIN FOR 1869.

This being the age of congresses it can excite no surprise to learn that an Alpine Congress has been projected for the present autumn. It has originated with the Swiss naturalists, who seek to assemble especially the geologists and palæontologists from France, Italy, and Germany, and the following are the names of the Professors in these branches of sciences who have organised themselves into a committee, viz., Prof. Studer, of Bern; Mérian and Rutimeyer, of Basel; Escher de la Lenth, Loriol, Heer, and Mousson, of Zurich; Desor, of Neuchatel; Renevier, of Lausanne; and C. Vogt and Pictet, of Geneva. The committee of reception has been organised at Geneva, having M. Pictet as president. In a letter he states that a circular has been issued to the geologists and palæontologists who may be supposed to be more immediately interested in the matter informing them that a "Congress of Alpine Geologists" will be held in Geneva on the 31st of August and 1st and 2nd September, and adding that all other persons who are interested in the subjects likely to be discussed will be received with great pleasure, although no circulars have been forwarded to them. All are requested to arrive at Geneva not later than the 30th, and at the Athenæum of that city they will receive programmes, tickets, and every necessary information. On that day a *conversazione* will be held in the saloons of the Maison Saussure. The main object is to assemble for a few days the *savants* of the western and eastern side of the Alpine chain in order to establish more intimate relations between the French, German, and Italian cultivators of geological science. All who wish to make any communications or desire information are requested to address the Secretary of the Committee, M. Ernest Favre, 6, Rue des Granges. Among the projected visits is one to the "*gisement classique de la Porte du Rhone*," and the geographical position of Geneva will admit of parties being organised for the Swiss, Savoy, or Dauphiny Alps, according to disposition.

Geh. Med.-Rath. E. Müller has just published his return of the mortality of Berlin for 1869. The mortality of 1868 had been very unfavourable, 24,787 deaths having taken place among 702,437 inhabitants, or 3·52 per cent. For last year the returns are more favourable—viz., 22,675 in an estimated population of 732,000 souls—*i.e.*, 3·09 per cent., or 1 death in 32·28 inhabitants. The total number of births was 30,101. Of these 15,471 (2394 illegitimate) were boys, and 14,630 (2212 illegitimate) girls. There were 532 twin births, and 6 triplets. The births stood in relation to the deaths as 132 to 100, or, if we eliminate the children born dead, as 134 to 100. As is usually the case at Berlin, the greatest number of deaths took place during the summer months. This mainly depends upon the number of children carried off in these months by cholera and diarrhœa, and, in fact, it is the children in their first year that constitute the chief differences in the mortality of the different months. Thus the deaths (including the stillborn) during the first year were as follows in the winter and spring months, viz.:—January, 677; February, 611; March, 690; April, 646; November, 620; and December, 660—3904. In the summer and autumn months they were: May, 863; June, 1078; July, 1286; August, 1153; September, 771; and October, 728—5879. In comparing the different districts of Berlin in detail, it is found that the proportion of the number of births and deaths correspond, both of these being least in the richest and most in the poorest parts of the town. In regard to sex, the male deaths in 1869 amounted to 12,111, or 53·4 per cent., and the female to 10,564, or 46·6 per cent., the births being at the rate of 51·4 per cent. for males, and 48·6 per cent. for females. Excluding 1419 children (795 boys, and 624 girls) born dead, the following were the ages at which death took place:—During the first two years there died 10,225 (5402 males, and 4823 females); from 2 to 5 years, exclusive, 1726 (881 males, and 845 females); from 5 to 20 years, 1195 (596 males, and 599 females); from 20 to 40 years, 3054 (1678 males, and 1376 females); from 40 to 60 years, 2553 (1551 males, and 1002 females); from 60 to 80 years 2128 (1040 males, and 1088 females); from 80 to 90 years 286 (106 males, and 180 females); from 90 to 100 years, 24 (9 males, and 15 females).

From among the causes of death we may specify the following:—First, as we have seen, there were 1419 children born dead, or 4·71 per cent. of the entire births. Of these, 353 were illegitimate, so that 7·66 per cent. of the entire number of illegitimate children were born dead. From *suicide* there perished 208 individuals, 152 being males and 56 females. Of the chief means of death, hanging was adopted by 83 men and 14 women; poisoning, by 19 men and 21 women; drowning, by 13 men and 15 women; and shooting, by 27 men. The number of *accidental deaths* amounted to 268, 214 occurring to males; and it is remarkable that this cause of death of late years has not augmented, notwithstanding the increase of population, manufactures, and traffic. From *small-pox* there occurred 239 deaths, 115 of the number taking place during the first two years of life. This is an increase on the numbers of last year, while the deaths from scarlatina decreased from the 600 of last year to 187 during the present one. From *measles* there died 172—77 males and 95 females. From *pertussis* 195 died—90 males and 105 females—this being one of the few diseases from which more females than males always die at Berlin Of *diarrhœa and cholera* there died 2403, being almost 900 less than the year before. *Diphtheria* also had 157 fewer returns, there having been, however, still 873 deaths from this cause (the numbers being equal as regards sex), besides 334 deaths (147 males and 187 females) from *croup*. Moreover, there are set down 761 deaths (324 males and 437 females) from *inflammation of the air passages*, most of these occurring in children. From *pleurisy and pneumonia* there died 1043 (606 males and 437 females), infants during the first two years supplying 437 of the cases, and individuals above 50 supplying 234 cases. As usual, *phthisis* furnished the largest contingency, 2979 (1779 males and 1200 females) deaths, 1969 of the number occurring between the ages of 20 and 50. As dying from *trismus*, there are returned as many as 300 (166 males and 134 females) cases, 279 of these occurring in children during their first year. 1405 (761 males and 644 females) infants also died of *convulsions*, 1108 of the number during the first year. The same period of life furnished most of the deaths from *marasmus*, which amounted to 1460 (769 males and 691 females), 1055 dying during their first year, and especially during the summer months.

Finally, in relation to the mortality of *illegitimate* children, Dr. Müller remarks that, including those born dead, there died under 16 years of age 2568 illegitimate children (1297 boys and 1271 girls); and as the entire number of children of that age dying amounted to 14,193, the mortality of illegitimate children was 18·09 per cent. of the whole mortality for that age. Comparing the causes of death, it is found that of 100 children born dead 24·87 per cent. were illegitimate, and that 29·61 per cent. of these died of debility, 25·39 of diarrhœa and cholera, these affections and marasmus proving much oftener causes of death than in legitimate children.

PARLIAMENTARY. — CHILDREN, ETC., PROTECTION BILL—METROPOLITAN REGULATIONS BILL—SALE OF POISONS (IRELAND) BILL—THE FATAL MARCH—THE MEDICAL OFFICERS' SUPERANNUATION BILL—THE INDIAN MEDICAL SERVICE—CONTAGIOUS DISEASES METROPOLITAN ACT—MEDICAL ACT (1858) AMENDMENT BILL.

In the House of Lords on Thursday, July 7,

The Marquis of Townshend proposed the second reading of a Bill for the Protection of Children. One of the clauses of the Bill made it illegal for a parent or schoolmaster to strike a child on the head. At the suggestion of the Earl of Morley the Bill was withdrawn.

The Marquis of Townshead also proposed the second reading of his Metropolitan Regulations Bill. The first clause of this Bill imposed a penalty on persons throwing orange-peel, etc., on the pavement. This Bill on the suggestion of the Earl of Airlie was withdrawn.

The Sale of Poisons (Ireland) Bill was read a second time.

In the House of Commons questions in reference to the late fatal march to Aldershot were asked by Mr. Anderson and Sir P. O'Brien and were answered by Mr. Bruce and Mr. Cardwell, but no new facts were elicited.

On Monday, July 11, in the House of Lords, on the motion of the Marquis of Salisbury the Medical Officers' Superannuation Bill was read a second time.

The Sale of Poisons (Ireland) Bill passed through committee.

In the House of Commons,

Colonel Sykes asked the Under Secretary for India whether an examination of candidates for the Medical Service in India would be made in the spring of 1871, as it was understood an examination would not be made in the present autumn; and whether any copies of the Financial Statistics of India from the end of the last century, and published by the Government of India, would be made available to those members of the House of Commons who take an interest in the finances of India on application for copies at the India Office.

Mr. Grant Duff: In reply to my hon. and gallant friend I regret to say that I am unable to answer his first question. It is quite possible that there may not be an examination next spring, as it is understood that the Medical service is rather overmanned at present. We have, however, written to India asking for precise information as to immediate requirements, and I can state nothing definite till we have an answer. In reply to his second question, I regret to say that no copies of the documents to which he alludes have up to this time reached the India Office.

On Tuesday, in the House of Lords, the Marquis of Townshend withdrew his Bill for extending the Contagious Diseases to the Metropolis.

The Sale of Poisons (Ireland) Bill was read a third time and passed.

On Wednesday, in the House of Commons, the Medical Act Act (1858) Amendment Bill was read a first time.

THE ANNUAL REPORT OF THE POOR-LAW BOARD.

No. II.

The Dispensary System in Ireland.

Recurring to that portion of the Report in which the Poor-law Board state their opinion that the effect of the introduction of the Dispensary system into the metroplis will not be to remove the necessity for infirmaries, it will be well to notice the basis on which they found that view. The Board admit that, to judge by the experience of the same system in Ireland, an opposite conclusion would be suggested, but point out in what particulars the parallel between the two countries ceases. This is the more important, since an observation of the large number of paupers who in Ireland receive Medical relief without being required to come into the workhouse Hospital, would naturally lead to a misgiving lest the adoption of the same system here should either deprive of occupants the spacious sick-asylums and infirmaries recently erected, or teach the independent poor to seek Medical aid from the guardians whilst in a position to provide it at their own cost.

In Ireland, however, public dispensaries, supported partly by subscriptions and partly from the county cess, were in extensive operation long before the introduction of the Poor-law into that country, and the present dispensary system there is founded upon the pre-existing state of things, under which, not only the destitute, but persons considerably above that class, were enabled to obtain Medical assistance gratuitously. Under the system as now established there by the Medical Charities Act (14 and 15 Vic., c. 68), the out-door Medical relief is not administered by the Board of Guardians, as in this country, but by a committee consisting of the guardians and a certain number of the ratepayers of the several dispensary districts into which each Union is divided. The members of the committee, and also the relieving officers and the wardens(a) for

(a) The wardens are unpaid officers appointed by the guardians under the Irish Poor Relief Act of 1838, and their chief duties are to provide for the conveyance of sick and infirm persons to the workhouse, to receive applications for admission, and to report to the guardians relative to the residence of the applicants.

the several electoral divisions within the district, are each entitled to issue tickets, without limit as to numbers, enabling the holders to receive Medical relief either at their own houses or at the dispensary, and it is not surprising that under such a system large numbers of tickets are given to individuals who are not in receipt of any other kind of relief, or who do not belong to the pauper class. Indeed instances are reported where retail tradesmen entitled to order Medical relief have been in the habit of signing whole books of tickets to be distributed by their shopmen amongst any customers willing to accept them.

This is a state of things from which we are to be saved in the metropolis by a limitation of the power of issuing orders for Medical relief. That it gives no exaggerated picture of the abuses to which the system is liable unless some such limit be imposed, is shown by the report of Mr. John Lambert after his investigation into the dispensary system in Ireland. It was upon the results of that inquiry that the portions of the Metropolitan Poor Act which give dispensaries to the metropolis were founded. As, then, the Poor-law Board determined to give the system a trial, with a full knowledge of its dangers as shown in Mr. Lambert's report, it is clear that they had every reliance upon the efficacy of the safeguard provided by limiting the power of giving dispensary tickets. There appears to be at present no ground for fear that their confidence is misplaced, and this is reassuring, for it could never be borne that here, in London, we should find ourselves under a system which placed the power of ordering Medical relief at the dispensary in the hands of a large class of comparatively irresponsible amateur officers. Mr. Lambert was evidently fully alive to this. In his report, above referred to, he stated his opinion that, "the only blot in the system is attributable to the extreme facility with which the tickets for Medical relief are obtainable from the members of the dispensary committees." He refers to one place in which he gained his information as to tradesmen distributing tickets indiscriminately, as mentioned above, and adds, "in another the Medical officer informed me that a member of the committee had sent one of his children with a ticket under a fictitious name, and had obtained cod-liver oil for a period of three months. The dispenser at Limerick, who is also the House-Surgeon at the Barrington Hospital, stated that the right conferred upon so many persons to give Medical orders is open to great abuse, and he thought it should be limited to relieving officers and *ex officio* guardians." This is precisely the limit to which, under the Metropolitan Poor Act, it is confined in London.

Mr. Lambert goes on to say that, "Another reason for the somewhat lavish administration of out-door Medical relief in Ireland, is attributable to the Professional etiquette, which prohibits even a Surgeon from attending a patient for a less fee than a guinea, so that the question upon which the granting of Medical relief is supposed to hinge is, whether or not the applicant is provided with that sum." The latter reason, however, is not applicable to this country, and any abuse liable to arise from the granting of relief by all the members of the dispensary committee should be obviated by the limit imposed in the metropolis.

Having thus noticed some of the risks to which the system is liable, it will be but fair to give Mr. Lambert's reasons for reporting on it in such terms as appear to have subsequently decided the Poor-law Board to adopt it in London. He considered the following as some of the advantages to be derived from it:—

"1. It ensures for the destitute sick poor a sufficient supply of all necessary and proper medicines and Medical appliances.

"2. It enables those who are not confined within doors to obtain Medical advice at fixed hours, and within a convenient distance from their homes.

"3. It insures for those who are unable to go out, Medical attendance, and enables them to obtain their medicines promptly.

"4. It affords facilities for vaccination, as well as for Medical relief generally, by establishing fixed places at which it is well known that the Medical officers must attend at stated hours.

5. It provides an organisation always ready, and capable of expansion if necessary, to meet any outbreak of epidemic disease with promptness, whilst at the same time it is calculated to prevent disease becoming epidemic by early treatment, and by procuring the adoption of precautionary measures in any locality which may be threatened. These benefits have recently been largely realised in Ireland in reference to cholera.

"6. By preserving a record of the Medical treatment in every case, it furnishes a test of both the skill and the attention of the Medical officer.

"7. It prevents that conflict between interest and duty which must so often arise in the mind of the Medical officer when he himself is required to provide medicines out of his salary.

"I think it right to add, that after giving my best consideration to the system of dispensary relief, I am of opinion that it is admirably adapted to the exigencies of large and densely populated communities, and I do not hesitate, therefore, to recommend that it should form an element in any scheme for the improvement of poor-law administration in this metropolis, subject, however, to a restriction, such as I have indicated, with respect to the issuing of tickets for relief."

In any comparison between England and Ireland with the view of forming a judgment as to the probable results of the dispensary system in the latter country, another important distinction must be borne in mind. Whilst in England a Medical order is treated like any other order for poor relief, and the recipient is consequently at once counted as a pauper, in Ireland the receipt of a Medical order does not entail any such result. The statistics of Medical poor relief in the two countries cannot therefore be fairly contrasted without bearing in mind that the dispensary system in Ireland embraces a large class, who in England do not receive any Medical treatment at the expense of the rates. The fact that in England a Medical order pauperises may also be found, in conjunction with the limited right of issuing orders, a check upon the spread of Medical relief amongst the classes of persons who are in a position to provide it at their own cost.

The difficulty of comparing the systems of the two countries is exhibited by an examination of the figures given in the report. The number of tickets entitling to gratuitous Medical relief in Ireland during the year ended September 30, 1868, was 767,759. The maximum number of out-door panpers relieved by the guardians in the same year was 50,257. A comparison of these figures conclusively shows that an enormous majority of the tickets was given to persons who were not in receipt of real pauper relief at all. On the other hand, in England, to quote the report, "the instances are comparatively few in which persons receive Medical relief only, nearly all those who are attended by the Poor-law Medical officers requiring further relief as well. The substantial difference, therefore, between the English and Irish system of out-door Medical relief is that, according to the latter, Medical aid is in practice rendered gratuitonsly to all who choose to apply for it, not only through the responsible relieving officers, but through the members of a numerous committee; while in England the services of the Poor-law Medical officers are strictly limited to the pauper class."

As, therefore, the dispensary system, now on its trial in London, proposes to make no change in respect to the present restriction of Medical relief to the panper class, and as it does not afford that opportunity for the almost indiscriminate issue of tickets which we have mentioned as existing in Ireland, there appears to be no just ground for apprehension lest it should have the effect of diminishing the anxiety of those just above the pauper class to abstain from calling upon the guardians for Medical aid. On the other hand, there are many who, in spite of the necessary increase in the burden of rates which would result, are by no means satisfied that it might not be desirable, even at the risk of diminishing independence and removing the need of frugality, to take some step towards giving gratuitous Medical aid without pauperising the recipient. The portion of the report of the Poor-law Board which refers to this subject admits the gravity of the question, and appears to point towards an intention on the part of the Government to take it up at some future time. The Board have evidently gone carefully into the matter, so far as it can be considered with the aid of only such information and statistics as are already at hand. This section of the report does not readily admit of condensation. We therefore adopt *in extenso* the remarks of the Board upon the question as to whether it is advisable to extend gratuitous Medical relief in England, as in Ireland, beyond the actual pauper class, to distribute Medical tickets with the same freedom as in Ireland, and to provide that the acceptance of such tickets should not pauperise the recipient.

"Questions of the gravest character would require a solution before the practice in the two countries could be assimilated. It would be necessary to determine how far the ready access to gratuitous Medical attendance would occasion a serious additional charge upon the public burdens, how far it would be compatible with the existing arrangements under which the practice of Medicine and Surgery is conducted in this country, and how far it would have a pauperising tendency by diminishing self-reliance and competing with those existing self-supporting organisations by which the more thrifty and pru-

dent members of the working classes are enabled to supply themselves with Medical aid in case of sickness.

"The statistics of Ireland prove that the additional burden on the ratepayers would be considerable. A very small proportion of the amount spent in Ireland on Medical relief, under the Medical Charities Act, represents the cost of Medical attendance on actual paupers, since, as we have seen, there were only 50,257 out-door paupers *altogether*, while as many as 767,759 dispensary tickets were issued.

"If in England a proportionate number of tickets were issued to those who are not of the pauper class, the change would necessarily operate in part as a transfer of patients from the private Practitioner to the public officer, although there can be no doubt that the number of applications for Medical assistance would be considerably increased. It is clear, therefore, that gratuitous Medical attendance on a national scale must alter most materially the existing proportion between public and private Practitioners. Of this Ireland furnishes a remarkable illustration. The dispensary system of Ireland owes its origin, in the main, to the fact of there being exceedingly few Medical men in the rural districts, where, in the absence of the salaries provided out of public funds, the population would be too sparse and too poor to afford remunerative practice to the general Practitioner. In England, on the other hand, particularly in towns and the more populous districts, the Medical wants of the people are supplied by Medical Practitioners at a rate of charge adapted to the circumstances of all but the very poor. Accordingly we find that the total number of Physicians and other members of the Medical Profession in Ireland is 2410, of whom 949, or more than three-eighths, are either dispensary doctors or workhouse Medical officers. This gives a supply of one Medical man to about 2500 of the population, whilst in London alone there are 3228 Medical Practitioners, or more than one to every 1000 of the population.

"The foregoing facts prove that the difference between the Medical practice in the two countries is by no means occasioned by Poor-law regulations, but depends upon social causes which are not common to the two countries; a remark which equally applies to the remaining point which, as we have stated, it would be necessary to consider before an organic change could be safely assented to. The practice of providing Medical aid through the means of benefit and friendly societies scarcely exists in Ireland, whereas in England it prevails among a very considerable portion of the working classes, who would have to choose between the alternative of contributing towards the additional taxation required for establishing a system of public medicine, whilst still retaining their separate organisation; or, as is more probable, of abandoning their self-supporting organisation, and themselves resorting to the public Medical officers.

"At the same time the economical and social advantages of free medicine to the poorer classes generally as distinguished from actual paupers, and perfect accessibility to Medical advice at all times under thorough organisation, may be considered as so important in themselves as to render it necessary to weigh with the greatest care all the reasons which may be adduced in their favour."

(To be continued.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Annual Dinner of the Fellows.

After the election of members of the Council, the Fellows of the College held their annual dinner at the Albion Tavern, Aldersgate-street, Mr. Hilton, F.R.S., in the chair. About 120 Fellows were present—a larger number than usual—including a considerable proportion of country Fellows.

The usual loyal toasts were duly honoured, and that of "The Army, Navy, and Volunteers in their Medical departments" was acknowledged by Dr. Armstrong, Director-General of the Medical Department of the Navy, Mr. Mackenzie, of the Bengal Army, and Mr. P. Hincks Bird.

"The Medical Council" was responded to by the President of the Council, Dr. Paget, who observed that the Medical Acts Amendment Bill proposed to give greater power for directing Medical education, and for preventing the entry of incompetent Practitioners into the Profession. The Bill is not regarded as satisfactory, yet its real and great merits are that it will accomplish that which we all so much desire—whether or not it contain clause 18—by reducing the number of licensing bodies from nineteen to three. Students must pass the Conjoint Board, for without that qualification in future no one will be placed on the Register, he will be liable to a heavy penalty for practising, and will be unable to recover his claims for Professional attendance.

Dr. Lush, M.P. for Salisbury, proposed the "Medical Corporations," complimenting them on what they had already done, and trusting for what the Profession still expected them to do. The Bill in Parliament was certainly not satisfactory to the Profession, and doubtless it would undergo great changes in its passage through the House of Commons. (Hear, hear.)

Dr. Clapton, on the part of the Royal College of Physicians, took occasion to notice the perfect unanimity between the two Colleges in reference to the formation of the Conjoint Examining Board. (Applause.)

Mr. Cock, President of the Royal College of Surgeons, was greeted with repeated rounds of applause, a mark of appreciation for the manner in which he had sustained the Presidency during his auspicious year of office.

Mr. Cooper, of the Apothecaries' Company, briefly acknowledged on the part of that corporation.

"The Provincial Schools" was proposed by Mr. Solly in felicitous terms. Mr. West, of Queen's College, Birmingham, returned thanks.

Mr. Dalrymple, M.P. (Norwich), gave the "Metropolitan Schools." Touching upon Medical politics, the Bill, he said, now before Parliament, contained some good, but more bad, legislation; and especially with regard to the equality of the minor and leading corporations. Moreover, the Anatomy Act at present provided far too restricted opportunities for dissection, and for operations on the dead subject; and provision should be made in the Bill to meet this necessity in Medical education.

Sir William Fergusson acknowledged the toast.

Mr. Paget, in eloquent terms, proposed "The Chairman," highly eulogising him for his knowledge, patience, and judgment in the Council of the College of Surgeons. As regarded the future of the College, the scientific character of that institution, and its relation in this light to society, were its most important features. Learned men in the strict sense of the term, as being learned in literature and the arts, Surgeons were not; but let the College, as by far the most important Medical corporate body, maintain and extend its highly scientific position, and its members need care nothing for what legislation may do now or in time to come.

Mr. Hilton briefly returned thanks.

"The Stewards" was coupled with the name of Mr. Allingham.

Mr. T. Carr Jackson, as Honorary Secretary, was warmly congratulated by the Chairman and Fellows for the manner in which he had performed his onerous duties.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting of this Association was held on Wednesday evening last at the Freemasons' Tavern, Great Queen-street, Dr. Rogers, President, being in the chair.

The annual report of the Council was read detailing what had been done during the last twelve months; 120 new members had been enrolled. The balance-sheet was favourable, although the expenditure had been heavy. The Council referred more especially to Dr. Brady's Superannuation of Medical Officers' Bill. They detailed the steps taken by them in order to secure the support of the President of the Poor-law Board, which support Mr. Goschen afterwards gave. One of the great objects has therefore been now achieved. Mr. Goschen is also about to issue a general order which will place officers in parishes on the same footing as those in unions—namely, that they shall be elected for life. The past year has therefore been an eventful one, and the Council expressed their thanks to the Medical and general press for their valuable support. The President was re-elected, and the other officers appointed for the ensuing year.

Dr. Rogers then delivered an address, in which he referred at great length to the Poor-law reforms which had been carried during the last few years, and claimed for this Association much of the merit of originating and advancing them. Recognition had at last been given to the fact that sickness was intimately connected with pauperism, and that an efficient Medical service is one of its best preventives. This principle, however, needed carrying out into practical effect in the readjustment of the

salaries and districts of the Medical officers, there being throughout England and Wales numerous examples of gross inequalities in both respects. Dr. Rogers highly extolled the Irish system of Medical relief, and concluded by acknowledging the great earnestness that was shown by Mr. Goschen during his presidency.

Dr. Rogers moved, and Dr. Stedman seconded, the adoption of the report of the Council, which was carried unanimously.

Dr. Dudfield proposed that the Association should put on record their appreciation of the generous support received from the President of the Poor-law Board, both in reference to the Superannuation Bill and other measures tending to greater efficiency in the Poor-law Medical service. Dr. Dudfield maintained that there was no spirit of antagonism between this Association and the Poor-law Board or the guardians. The more perfect the union among them the better would be the administration of the Poor-law.

Dr. M. Thomas seconded the resolution, which was then put and carried.

Mr. Benson Baker moved that the thanks of the meeting should be given to the local secretaries for their activity and energy, to which mainly was due the large accession of provincial members.

The motion was seconded by Dr. Richards, and carried unanimously.

Mr. Clark, of Leicester, and Mr. Smith, of Hay, Brecon, acknowledged the vote on behalf of the local secretaries.

Dr. Dixon proposed a vote of thanks to Dr. Dudfield for the efficient manner in which he had filled the office of general secretary during the past four years, and appended an expression of regret that he was about to resign the office.

The resolution was seconded by Dr. Buchall, supported by several members, and carried unanimously.

Dr. Dudfield made a graceful acknowledgment.

Mr. Sleman, of Tavistock, proposed a vote of thanks to the President, the Council, and the officers of the Association for their services during the past year.

The members and guests then adjourned to the dining-hall, where the annual dinner was held, at which were present—Sir John Gray, M.P.; Mr. E. S. Gordon, M.P.; Dr. Lush, M.P.; Mr. Charles Reed, M.P.; Mr. H. Lewis, M.P.; Mr. Barclay, M.P.; Dr. Dalrymple, M.P.; Dr. Brady, M.P.; Mr. Jones Parry, M.P., and others.

NEW BOOKS, WITH SHORT CRITIQUES.

A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M.D., one of the Physicians to the Pennsylvania Hospital, Consulting Physician to the Children's Hospital, Philadelphia, etc., and William Pepper, M.D., one of the Physicians to the Philadelphia Hospital, Lecturer on Morbid Anatomy at the University of Pennsylvania, etc. Philadelphia: Lindsay and Blakiston; London: Trübner. Pp. 921.

*** Practically, this is the fifth edition of "Meigs on Diseases of Children," but on this occasion he has associated with him Dr. Pepper, also of the Pensylvania Hospital, and the result is a work of an exhaustive description. Several articles have been enlarged, as those on thrush, convulsions, chorea, tracheotomy in croup, and parasitic skin diseases, and seventeen new ones have been added, including disease of the heart and cyanosis, diseases of the cæcum and appendix, intussusception, chronic hydrocephalus, tetanus, atrophic and hypertrophic paralysis, rheumatism, diphtheria, mumps, rickets, tuberculosis, infantile syphilis, typhoid fever, and sclerema. They have also compiled tables of mortality in connexion with temperature from the records of the City Board of Health, which cannot fail to be useful. There is also a capital introductory essay on the diagnosis of children's diseases, and the principles which guide us in their clinical examination. Altogether, the volume is as good as any of the kind which has reached us from across the Atlantic. In many respects it is superior to a goodly number of our own, and constitutes a reliable authority on the subjects of which it treats.

A Practical Treatise on the Diseases of Infancy and Childhood. By F. H. Tanner, M.D., etc. 2nd edition. By Alfred Meadows, M.D. Lond., M.R.C.P., Physician to the Hospital for Women, and to the General Lying-in Hospital, etc. London: Renshaw. Pp. 472.

*** The present edition of Dr. Tanner's work is considerably larger than the former, and its plan has been a good deal altered; all these alterations being the work of Dr. Meadows. Probably as it stands the book is one of the most complete in our language, insomuch that its title is a misnomer—it no longer deals with the diseases of children only but also with the peculiar conditions of childhood, both normal and abnormal, as well as the therapeutics specially applicable to that class of patients. Undoubtedly whilst the bodily frame is still being moulded to its future shape there is a greater chance of remedying any constitutional malformations than when the bones are firmly knit and the child has become a man. We are, therefore, rather inclined to subscribe to Dr. Meadows' view as to the importance of recognising diathesis in childhood, and of attending to these both by way of food and of medicine. A prominent feature in the volume is the appendix of formulæ, which number no fewer than 298; we do not conceive it probable that any one man will use all these, but everybody may pick and choose. Finally we may note that Dr. Meadows duly recognises the services of Dr. Tilbury Fox and Mr. Brudenell Carter for their services in the several specialities of skin diseases and ophthalmology.

Thérapeutique des Maladies Chirurgicales des Enfants. Par T. Holmes, Chirurgien et Professeur de Chirurgie à St. George's Hospital, Londres, etc. Ouvrage traduit sur la Seconde Edition par le Dr. O. Larcher, Ancien Interne et Laureat des Hôpitaux de Paris, etc.

The Treatment of the Surgical Diseases of Children. By T. Holmes, Surgeon to, and Lecturer on Surgery at, St. George's Hospital, London. Translated from the Second Edition by Dr. O. Larcher, formerly Interne and Laureate of the Paris Hospitals, etc. Paris: J. Baillière et Fils. Pp. 917.

*** We are bound to say that Mr. Holmes's well known work appears in its French dress under very favourable auspices. In Dr. Larcher Mr. Holmes has found an able and an appreciative translator, one who has known how to add and how to annotate. To this much Mr. Holmes himself cordially concedes in a letter placed in the beginning of the book. The valuable additions made by M. Larcher are two-fold, consisting of a large number of most valuable illustrations and a considerable amount of letterpress. The latter deals with such diverse subjects as congenital cysts, sarcoma, congenital cysts of the neck, nævus, spina bifida, harelip and other malformations, hypertrophy of the tongue, malformations of the outer ear, congenital cataract, congenital obstructions of the œsophagus, extroversion of the bladder, imperforate anus, phymosis, epispadias, and very many others. These include extracts from the works of Guersant, Giraldès, Marjolin, and a variety of other authorities. Altogether Mr. Holmes seems to have been lucky, and both he and M. Larcher may be congratulated on the result.

FOREIGN CORRESPONDENCE.

INDIA.

(*From our Special Correspondent.*)

A good deal of correspondence, besides editorial matter, has recently appeared in more than one of the Indian journals, the object being, for the most part, to depreciate the "Indian Medical service" in its higher administrative grades, and to elevate, in proportion, the sanitary commissioner with the Government of India. The heads of the Medical department are represented as successively unworthy of the high office which they have been called upon to fill, whilst the latter officer is put forth as the real worker in the hive, and alone worthy of gubernatorial confidence. Now, sir, I venture to think that conclusions have been arrived at without sufficient inquiry, and that the true cause of the present unsatisfactory state of affairs in the Indian Medical world has not been clearly stated.

Since the Crimean war, men have been very forcibly reminded that "cleanliness is next to godliness"—a scriptural text, which, until then, appears to have been totally forgotten since the journey of the Israelites from Egypt into Canaan. Sanitation, during the last decade, has been put so prominently forward by the disciples of those eminent reformers, Miss Nightingale and Sydney Herbert, that its true position amongst the sciences has been completely lost sight of. Instead of being the handmaid of Medicine, sanitation has become its *avant courier;* and not only in India; it is the same wherever the subject has been taken up in earnest. An undue prominence has been given to a system, which, after all, is but another name for common sense. There is, of course, much in connexion with

sanitation that calls for careful study, and which cannot be acquired without it—chemistry, for example, and mechanical philosophy; but I speak here more particularly of good ventilation, pure water, complete drainage, etc. etc., the value of which all educated men should, of course, know; such knowledge being simply the common sense which comes, or should come, with education. However, so it is, at present, in England as well as in India; the aspiring acolyte in the temple of Hygeia is apotheotised, whilst the more learned and more humble disciple of Æsculapius is lowered in public esteem, if not altogether scoffed at. At the same time, the Medical officer of the Privy Council in London is not put over the Director-General of the British Medical Service who sits in Whitehall-yard, as the sanitary commissioner with the Government of India is practically so put over the heads of the two Medical Inspector-Generals in this country—the head of the Indian and the head of the British Medical Service.

It so happened that he who sat as president of the first "Sanitary Commission" in Bengal had, a few years previously, taken an active part in the introduction of sanitary reform amongst the mountaineers of Gurhwal, who, from time immemorial probably (although the first account of the plague was published by Fraser in 1823), had been periodically driven from their homes by "Mahamurree." Sanitation was for the time Mr. John Strachey's "hobby horse," and right well he rode him. One of the ablest men in the country, he soon showed what would be affected by sanitation; and, since then, nothing else seems to have been thought comparable to it. Year after year, a volume, full of important matter, issues from the pen of the sanitary functionary; but, sir, if you have read these volumes, has it not struck you that this gentleman (who need have had no professional training—Mr. Strachey, and Major Malleson, each in his turn sanitary commissioner with the Government of India, had none) deals with subjects which do not quite come under the head of sanitation? Not only does he take up questions of food, water, air, and meteorological phenomena, fairs, pilgrimages, and the like, which do come more directly within his province, but he enters medically and quasi-medically into the constitution of regiments, the history of disease throughout the year, vexed questions of contagion, etc., which I think should form, more properly, the work of the respective heads of the two Medical departments. Gradually, but surely, has the sanitary commissioner with the Government of India come to be the Medical referee on all the important Medical questions affecting the army and the population of India. This was never intended, but it has come to pass nevertheless; and why? First, because sanitation has shot too much ahead in public esteem; secondly, because—unhappily—the regulations of the service have not been adhered to in the appointments to administrative posts. Of the present head of the Indian Medical Department I can only speak in terms of the greatest respect, so far as I know him. He is active-minded and earnest, and loves his Profession for its own sake. Once, when cholera was epidemic in a district (he was then Deputy Inspector-General of Hospitals), whilst his coadjutor, of the same rank in the sister service, called for reports, Dr. Murray went, and saw for himself in the month of May. Here was energy at any rate. I can scarcely imagine that any one would think such a man unqualified, *cæteris paribus*, for the post of Inspector-General. In former days, alas! (it is too well known that) inefficient men were promoted to the higher administrative grades simply because they had lived long enough. No matter whether they could boast of "distinguished zeal, strict assiduity, or Professional ability," if there was nothing recorded against them they were nominated. I recollect one instance where a Medical officer, notoriously unqualified, went home on furlough with the intention of retiring; but, when he found that —— was Inspector-General, a man of very amiable disposition, and one not desirous of injuring any one's prospects, actually returned in the hope that he *might slip in!* and he very nearly, I believe, did so; but, happily for the service, fortune frowned upon him, and he remained *in statu quo ante*.

It is too true that the valuable Medical archives on the shelves of the library attached to the office of the Inspector-General in Calcutta have not been used as they might have been, and as the present secretary is now using them. They have indeed been dived into to some extent for special purposes, and the results have been given to the world by a Chevers, by a Macpherson, by a Macnamara, and by others; but they have not been thoroughly sifted for their general value. Nor have the yearly labours of Medical officers been published in annual blue books, after the fashion of the *Army Medical Reports*, H.M.'s British service. *Nous avons changé tout cela* now, at all events, and the annual "Sketch of the Medical History of the Native Army in Bengal" shows what is being done in this respect. The lethargy of the lion is over, and he is prepared to show the deeds of which he is capable. The sanitary commissioner has been assisted in the start which he has acquired by this said lethargy; but there is yet time to put things on a proper footing. Let the sanitary commissioner have all the benefit of his past labours—honorary and pecuniary; but now that the capacity of the Medical service has been found to be equal to the occasion, (was it ever doubted?) let the Medical duties of the country be performed by the Medical service, and let the administration be carried on by its legitimate chiefs. I have endeavoured to explain why the Medical officers of this country have come to be directed by a sanitary commissioner instead of by those whose duties he has, I will not say usurped, but, Malvolio-like, had thrust upon him.

To prevent a further continuation of the lethargy which has enabled mere health officers to give the legitimate administrative officers the go-by, let the utmost care be taken in the selection of men for administrative posts. So many qualifications are necessary to become a thoroughly efficient administrator that it is doubtful whether they are possessed by more than one in four, and yet all four would have been promoted one after the other under the old *régime!* If care be taken, there is no reason why in time the Indian Medical service should not be able to boast of as efficient and administrative a staff as any in the most advanced and most civilised nation either in the old or the new world. Then where would be the need for appointing sanitary commissioners, or superintendents, or inspectors? The Deputy Inspector-General of Hospitals should superintend the whole, and report direct to the Inspector-General. It was but the other day that the latter officer was directed by Government to instruct executive Medical officers to use all despatch in preparing for the sanitary commissioner the pabulum (in the shape of Medical returns) for his report. *O tempora!* The head of the fine old Indian Medical service converted into a cat's paw. It is time, indeed, that this lamentable mockery should cease. Mr. George Campbell, in a lecture recently delivered in Edinburgh, in which he recommends India as a field for English youth, wonders why young Medical men do not go there. Here is one reason: the Indian Medical service is degraded and disorganised.

I have spoken of sanitation as the handmaid of Medicine. Why—there being so many conflicting interests in the two services to provide for—should we not go back to the old days of a board, in which the respective Inspectors-General should represent their respective services, in which there should be the statistical member, and where the sanitary commissioner might be secretary? Nothing short of some arrangement of this kind will, I am convinced, meet every difficulty and satisfy everybody. It seems very unlikely, I think, that Deputy-Inspectors-General of Hospitals will be reduced in number, and yet it is talked of in India as almost a *fait accompli!* These are the men who do, or should do, the real Medical work of the country. They make careful inspections of all the institutions in their respective circles: they study the diseases and the Medical wants of the people; and materially assist the progress of Medical science in India by their local influence and knowledge. To do away with this body would be to remove the key-stone of the arch.

It is said that some scheme is in contemplation by which the whole constitution of the Indian Medical Service is to be altered. No measure, I think, would provide for the interests of the country (which, after all, it is the duty of legislators to consider in the first instance) so well as a Medical staff corps. This was the best of Sir C. Wood's ideas, expressed in his despatch No. 340, dated November 7, 1864. Unfortunately, the sanction of Parliament was withheld, (how little are the wants of India understood in that august assembly!) and consequently the Secretary of State for India had to fall back upon his last measure—the separation, as before, of the two services. His first scheme of amalgamation would have been better than this; but the Secretary of State for War soon disposed of that notion. He did not approve of the idea of British Medical officers being removed, though only temporarily, from their connexion with European troops, because they would learn insubordination—besides acquiring a knowledge of disease that, on their return to their legitimate sphere of duty, would be comparatively useless to them.

But once in a staff corps, they would become separated altogether, and would devote themselves naturally, for the remainder of their lives, to promote the Medical interests of India.

How should a "Medical Staff Corps for India" be constituted? The name—an Indian Medical Staff Corps—implies the existence of one element which is essential to its success; it must be local. And further, the man who once enters it must make up his mind to remain in it. If Medical officers be allowed the option of returning to regimental duty after having enjoyed its benefits as long a period as suits their views, the institution will be a failure. Then what class of men are to be admitted? How is the competency of candidates to be ascertained? With regard to the first of these questions, How is the selection to be made? Is it to be limited to the services? or may uncovenanted men compete? The feeling, at first sight, would be in favour of rejecting these last; but if they be excluded, a number of valuable Practitioners will be lost to India.

The subject is a wide one, and cannot be discussed and disposed of in a single letter, but I venture to give a sketch of how I think an Indian Medical Staff Corps might be constituted with great advantage to the country. As a primary measure. I would sweep away the uncovenanted Medical service as it now is altogether. It would make your hair stand on end to see some of its members, and, if you were to be present at the examinations which are considered sufficient to test the capacity of candidates, you would not wonder at the terrible mistakes which these gentlemen sometimes commit in practice. Instead of a cheap uncovenanted Medical service, in which there are Practitioners who would think it well to amputate a limb in the case of a bleeding artery, or to remove a mamma for irritable tumour, let us have a staff corps whose name alone shall serve as a guarantee for efficiency.

When it is known at home that such a field exists in India for the development of talent, and where talent shall meet with its due reward, more Medical students will elect for the army with a view to an Indian career. Instead of there being, as now, a minimum of candidates to fill the vacancies which are biennially announced by the Secretary of State for India, there will be a maximum. I would make Netley one door of admission into the Indian Medical Staff Corps. That in itself is a guarantee of efficiency, as far as it goes, but as the Netley course can give no acquaintance with acute tropical disease, and as this is essential to complete efficiency, something more is required, and there is nothing better than a six months' course at the Presidency College. And such a course should be made essential. An obsolete general order does indeed require (to ensure the complete education of the young Assistant-Surgeons of the old Indian Medical Service) that all new comers shall remain, for the first three months, in an Indian metropolitan Hospital, and that, before being appointed to a "charge," they shall be allowed to study the language, regimental and other forms, etc., for three months more. So that I am only proposing a return to a former wise *régime*. Military officers, who are candidates for the military staff corps in India, are allowed leave of absence to study the languages, a knowledge of which is necessary to enable them to qualify for admission. Why should not the same privilege be accorded to Medical officers, to enable them to qualify for admission into the Medical Staff Corps? and the same period that would be necessary to enable them to qualify professionally would suffice for the acquisition of a knowledge of the languages: the one is as essential as the other. The lingual tests might remain as they are at present, and the course of Professional study, with the nature of the diploma to be given, might be fixed by the Inspectors-General of Hospitals of the two departments—British and Indian—in concert with the Professors of the College. Then what are the duties to be performed? Native regiments can scarcely be called "staff" charges in the present acceptation of the term, and yet they are essentially local, and withal very important local, charges. I would have the Medical officer, who elected for the staff corps, eligible for any one of the charges which are now being held, for the most part, by Indian Medical officers. Thus, under a new name, though on a better footing, we should have the old Indian Medical service revived. All Medical officers at starting from Netley, would belong to the British Medical Service, whilst those who elected for regiments in India would do so with a view to entering the staff corps. This is, in fact, the army system of the present day.

Promotions and retirements in the Staff Corps should take place quite independent of the line. I would do away with sanitary commissioners, inspectors-general of dispensaries and jails, and so forth, and create, in preference, a small body of inspecting officers, call them by what name you will, whose duties should be to inspect everything. These should be carefully selected from amongst the best men in the corps, and there should be a head, a central authority, with the title of Inspector-General. This chief, representing his own department, should, as I have before suggested, sit at the same board with the Inspector-General of Hospitals of European regiments. At this board the statistics and sanitation of the country would be discussed and elaborated, and the entire Medical Government would be in the hands of one harmonious body composed of old heads and young ones, by which the interests of all would be studied, instead of being, as it is now, in the grasp of a single officer who, himself a comparative junior, is practically uncontrolled by any one. And if an Indian Medical Staff Corps be constituted, I earnestly trust that the Widows' and the Orphans' Fund will be resuscitated. One of the greatest attractions of service in India has been withdrawn by this short-sighted and unintentionally cruel measure—the abolition of the Widows' and the Orphans' Fund. It is not very certain who, nowadays, makes our Indian Medical laws. The Indian Medical service has had no strong friends in power in this country, I believe, since the days of Lord Dalhousie. There are a few who wish it well, and who would be glad to see it on a better footing, but these are unable to contend against those who do not believe in Doctors, and who have more confidence in dustpans and brushes. Still, I have every confidence in the justice of those who frame our regulations, and I believe that, though they are quite prepared to give Doctors hard measure (I say this with due respect) they are equally willing to listen to any suggestions that may lead to good Medical administration; and, therefore, I have troubled you with these lines.

If the Indian Medical service be about to be reorganised, how is this being done? Who is doing it? Each is asking the other what he knows; but, in truth, no one seems to know anything at all about the matter, so that the reorganisation, if there be any, is being carried out very mysteriously and secretly. Now, sir, would not a more satisfactory result be arrived at if so important a measure were discussed openly, when valuable opinions might be secured and useful light thrown upon what, to other than Medical men, must necessarily be unintelligible and obscure. Surely experienced army Surgeons should be invited to aid in the discussion of Professional questions involving the government of their own body. The are Medical men (officers on leave besides those who have retired), now in England, whose administrative experience would be very valuable to the Indian Council, if the Secretary of State for India would summon them to the council board and examine them. A committee might be convened in India in the first instance, before which similar examinations might be held of practical Medical officers here. The report of such a committee would be a useful basis of inquiry for the Duke of Argyll and his council at home. In this way the subject would receive what it requires, thorough ventilation. Apologising for the length of this letter,

I am, &c. YOUR SPECIAL CORRESPONDENT.

GENERAL CORRESPONDENCE.

CONTAMINATED WATER IN CHOLERA.

LETTER FROM DR. MACPHERSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read with much pleasure your appreciative review of Mr. C. Macnamara's recent work on cholera, and the original also. But it may be well to point out what strikes me as an error in one of the statements by which Mr. Macnamara supports the view of the propagation of cholera by contaminated water. I had occasion to allude, in your columns in 1867, to this very case of the *Carnatic*, which Pettenkofer had made use of in the illustration of very different views.

I cannot account for two writers giving such very opposite versions of the facts of the case, if they derive them from Jameson's Bengal report. I am tempted to suppose there may be another version of the history of the *Carnatic* in existence, which I have not seen.

Mr. Macnamara says, "Some of the men of the *Carnatic* landed at Madras, cholera being endemic at the place. They returned to the vessel, and several of them were seized with cholera, but none of those who nursed these patients, or lived with them, suffered."

Mr. Macnamara supposes—"Some of the men landed at Madras, and may have been supposed to have drunk water contaminated with choleraic matters. They were seized with

the disease. The drinking water of the vessel remaining pure, those who attended the cholera patients kept perfectly well."

What are the facts in Jameson's report? I have abridged them slightly.

The *Carnatic*, while at anchor in Madras roads, had six cases of cholera. She sailed on August 20. On the night of the 27th a man who had recovered from an attack of cholera at Madras was seized, and died on the morning of the 28th. Six more men were seized from the 29th to the 31st, and all died. There were six more cases after this, but they all recovered. "Some were seized who had no communication with the sick, while others escaped who constantly sat by their hammocks. All the sailors had drunk largely of cold water before they were seized."

How does this agree with Mr. Macnamara's facts? The report does not say that only those who had landed at Madras suffered. It does not assert that *none* of those who nursed the men suffered, although such might very well have been the case. As to the further supposition that all the men seized had drunk contaminated water at Madras, it must be admitted, that even the first man attacked could not have drunk water at Madras within seven days of his seizure, and as he was convalescent from cholera, it is not very likely that he had been exposed to a fresh dose of contaminated water just before sailing. As to the other supposition that those of the crew who escaped cholera did so owing to the water of the vessel remaining pure, the report expressly says that all those who were seized had drunk largely of the ship water. The presumption would, therefore, rather be the other way. This brief examination of the facts respecting the *Carnatic* shews the necessity for carefully sifting *stock* cases like this, and that of the sudden appearance of cholera in St. Kilda, which are so eagerly seized on for the support of various theories, and which often pass unchallenged.

Mr. Macnamara alludes half a dozen times in his interesting book to a very remarkable case of a small outbreak of cholera, induced, as he believes, by the use of contaminated water, but he nowhere gives a distinct history of the occurrence, and until this is furnished, it is impossible to say what degree of importance is to be attached to it. One of the first difficulties of the case is, how water containing cholera excretions was found in a place "where cholera was not prevalent?" I suspect that, in the case of the *Britannia*, also quoted by Mr. Macnamara and others, some facts have been accepted without due investigation, but I shall not enter on that question.

I am, &c. J. Macpherson, M.D.

35, Curzon-street, W., July 9.

A MEMORIAL TO SIR JAMES CLARK.

[To the Editor of the Medical Times and Gazette.]

Sir,—It was with very sincere pleasure that I read the short, but most eloquent and truthful notice of Sir James Clark, which appeared in your columns last week. And it is very gratifying to find the great ability—as well as the goodness—of one so unobtrusive and retiring, justly appreciated. I venture to hope that some means will now be taken to give enduring proof, as well of the high esteem in which the character of Sir James Clark was held, as of the deep sense entertained of the value of his eminent public services.

I am, &c. A. F.

CHOLERA AND DRINKING-WATER IN INDIA.

[To the Editor of the Medical Times and Gazette.]

Sir,—I noticed lately in a Medical contemporary of yours the question asked with reference to the propagation of cholera in India and the exemption of officers from that scourge, whether officers drank water from the same source as the men. In India the men live in barracks, consequently close together, and a very few wells will do for an entire barrack. Officers, on the other hand, live in separate houses, each within its own grounds, and most of these houses, or many of them at least, have a well within the grounds; so that very few officers drink from the same well, hardly ever from the wells used by the men. But really, as far as my experience goes of India, the British officer there drinks very little water in its natural state. Soda-water, mixed with alcohol in some shape, is his great beverage. This soda-water may be made at the station or imported from a distance. What little well water he does drink is generally most carefully filtered, and, as a rule, mixed with brandy or wine. Supposing water to be tainted, how far the converting it into soda-water or mixing it with alcohol would have the effect of destroying cholera germs, are questions which may perhaps be answered when we have found out what cholera germs are. Neither alcohol, soda, nor carbonic acid gas, have much effect on them when once they have got into the body. However, as far as my experience goes, the officer in India does not drink from the same well as the soldier.

I am, &c. A British Medical Officer.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 17, 1870.

Richard Quain, M.D., President, in the Chair.

Mr. Wood and Mr. W. Adams reported on Dr. Thomson Dickson's specimen of Brittle Bones in General Paralysis. The sternum was rather softer than usual, the cartilages ossified and greasy; but there appeared to be nothing beyond slight fatty degeneration occurring earlier than usual.

Dr. Wiltshire reported on Dr. Fuller's specimen of Hair from the Vagina. It was probably ovarian.

Mr. Pick reported on Mr. Holmes's Tumour of the Jaw; its structure was fibro-cellular, the cells very small, probably a lympho-sarcoma.

Mr. Marsh, on Dr. Morell Mackenzie's Tumour of the Larynx, reported it as adenoid carcinoma.

Mr. Arnott also reported on Dr. Whipham's case of Atheromatous heart, and on Mr. de Morgan's example of Fibroid Tumour of the Mamma.

Dr. Green considered Dr. C. T. William's specimen of Indurated Lung to be the result of chronic phthisis.

Dr. Dickinson exhibited for Dr. Peacock two specimens. 1. Perforation of the Appendix Vermiformis from the body of a gentleman, aged 29, who was taken suddenly ill with sickness and vomiting after the action of a purgative on March 13. When seen by Dr. Peacock on the 16th, he had had no action in the bowels since that produced by the purgative, and presented symptoms of peritonitis, with pain, tenderness, and swelling in the ileo-cæcal region. The symptoms were partially relieved by treatment, and the bowels acted naturally; but the pain, tenderness, and enlargement on the right side of the abdomen continued, and the patient died, somewhat unexpectedly, of acute congestion of the lungs on the 29th. On examination the following day, a large abscess, containing very offensive matter, was found in the ileo-cæcal region, bounded by firm adhesions between the intestines and parietes, and there was also some recent peritoneal effusion and adhesions. The appendix vermiformis was found perforated in three places, and almost separated from the cæcum. It was evident that the disease was of considerable duration, and it was afterwards ascertained that the patient had had a somewhat similar attack, also following the action of a purgative, about six weeks before the commencement of his last illness, and was not well in the interval. It seemed most probable, therefore, that the mischief had then commenced, though he had been out of health for some time and in the habit of taking aperients frequently. 2. Aneurism of the ascending and transverse portion of the aorta with irregularity in the origin of the large vessels at the arch, from a farm labourer, age 46, who died in St. Thomas's Hospital on February 3 under Dr. Peacock's care. The symptoms and signs of aneurism, with secondary disease of the aortic valves, were very characteristic, and the patient had laryngeal symptoms with paralysis of the left vocal cords. He died, somewhat suddenly, in a paroxysm of dyspnœa. On examination a large aneurism was found, which involved the whole of the ascending and transverse portions of the arch of the aorta, and presented several pouches. The left recurrent nerve was lost in the walls of the sac. The aortic valves were thickened and shortened, and very incompetent from the great enlargement of the outlet of the orifice. The great interest of the case lay, however, in the circumstance that, in addition to the aneurism, the origins of the large vessels on the arch were irregular. The right subclavian artery arose from the left side, beyond the region of the left subclavian, and then passed behind the trachea and œsophagus to its usual distribution. There was also a somewhat large bronchocele.

Dr. John Murray exhibited the Suprarenal Capsules of an individual who had suffered much from dyspnœa. There was also some pneumonia. The capsules were diseased.

Dr. Greenhow asked whether the pneumonia was extensive or not, as that might have caused the dyspnœa.

Dr. Murray replied it was in the right lung only, and the dyspnœa was paroxysmal.

Mr. Bellamy exhibited a tumour removed from the tendon of the transversalis abdominis, by Mr. Canton. It had been rather bulky, and had occasioned considerable inconvenience to the patient, who died after the operation from peritonitis.—Referred to Morbid Growths Committee.

Dr. Dickinson exhibited a lymphoid growth of the spleen from a boy, aged 7, who had been first seen nearly three years ago. He was very anæmic, and slightly yellow. A little fluid was effused into the peritoneum. Finally he bled from the mouth and nose, and sank. The inguinal glands were large, hard, and semi-transparent on section. The spleen was also altered and enlarged; straw-coloured bodies, the size of peas, also hard, could be picked out of it. There were visible bands of structureless network, containing lymphoid bodies. He fancied it was Hodgkin's disease.

Mr. Hulke thought these might have their origin in the Malpighian bodies.

Dr. Dickinson could not make that out satisfactorily, but the bodies were similar to the glands.

Dr. Murchison said this disease was not confined to the spleen and the glands, but might invade every part. The specimen he exhibited last year was exceedingly like cancer. This year he had seen one occurring in a girl of 6. She had been very delicate, and the disease began about three years before her death. She was feverish at first, and had swellings in the neck; afterwards these extended to other parts. Both sides of the neck were filled with tumours, as were the axillæ and groins. She became intensely anæmic, with a temperature of 103°, and finally died of bronchitis. The glands were much as in the last specimen. A mediastinal mass resembled cancer. Others were found in the lungs. The spleen was very large and packed with deposits, but there were no projections on the surface. The glands in the porta were enlarged, and penetrated the liver. Other masses were found in the liver itself. The kidneys were free, but other parts of the body, as the dura mater, were invaded.

Dr. Burdon Sanderson reported on this specimen that he considered it a lympho-adenoma, to use Cornil and Ranvier's names, consisting of lymphoid cells in a meshed stroma of hyaline substance. In some parts there were few cells. There were more appearances of invasion in this example, especially of the lung. In structure it closely resembled tubercle, yet it was malignant as cancer.

Dr. Bastian was inclined to class this as a cancerous growth. There was no increase in number of the white blood corpuscles.

Dr. Powell said Trousseau had described the disease under the term adenie.

Dr. Sanderson considered that the origin of these corpuscles must be considered hereafter. It was quite consistent that the bodies might have migrated. Ranvier had done ill in including them along with leucocythemia.

Dr. Dickinson said Drs. Hodgkin or Wilks had dwelt on it as malignant in the liver.

Dr. Bastian further maintained that the white blood corpuscles originate in a different fashion from that generally supposed.

Dr. Whipham exhibited a specimen of syphilitic disease of larynx and liver. The man had syphilis in 1860, and had suffered from sore throat ever since. He died of bronchitis.

Dr. Cayley showed microscopical drawings, made by Mr. Arnott, of a kidney from a case of Acute Renal Dropsy, unattended by Albuminuria. The patient was a boy, aged 9 years, who died in the Middlesex Hospital, after an illness of between three and four weeks' duration. The attack began with symptoms of a cold, followed by sore-throat and otorrhœa, but without any rash or desquamation. General dropsy supervened, and resulted in œdema of the lungs, lobular pneumonia, and myo- and endocarditis. No albumen was present throughout. The kidneys presented the characters of acute interstitial nephritis. They were considerably enlarged, and diffused through the cortical parts, between the convoluted tubes and round the Malpighian bodies were masses of nuclei, having the characters of lymph corpuscles; the renal epithelium was unaffected. The inflammatory exudation was thus identical with that met with in other interstitial inflammations, as cirrhosis of the liver. Dr. Cayley accounted for the absence of albumen on the supposition that the fluid which transudes through the Malpighian tufts, as they are not covered by any secreting cells, consists essentially of serum, and is therefore albuminous. In the healthy kidney the albumen is reabsorbed during the passage of the fluid down the convoluted tubes. When the epithelium is diseased, this reabsorption is interfered with, and consequently albumen appears in the urine. But in interstitial nephritis, which results in the contracted granular kidney, the renal epithelium does not become affected till the interstitial deposit, by its contraction, has begun to press upon and constrict the tubes; hence, in these cases, albuminuria does not appear till the disease has made considerable progress. The discovery of the termination of the convoluted tubes in Henle's loops speaks strongly for this view, as this arrangement must greatly retard the flow down the convoluted tubes, and so favour reabsorption, while it would be unfavourable to secretion. The case is also interesting, as affording an example of the acute stage of the contracted granular kidney, which is of rare occurrence. In the great majority of instances of this form of Bright's disease, the interstitial nuclear deposit and its conversion into fibrous tissue go on with equal steps.

Dr. Dickinson had seen a child of ten months, which was odematous for three weeks, and died convulsed. Urine could hardly be obtained; what there was contained in it no albumen. In one there was tubal distension, and the tubes were blocked with fibrinous matter.

In reply to Dr. Legg, Dr. Cayley said no other body but albumen had been sought for.

Dr. Crisp showed a specimen of Abscess of the Kidney removed from a woman aged 61. She had suffered much pain in the right side, and was forced to lie on her back. She died after six months, and a large tumour was found round the kidney. It burst, and pus escaped. Cysts were found in the kidney.

Dr. Bristowe exhibited a specimen of Peritoneal Cancer from a man aged 28. He had suffered from ascites. The peritoneum was found studded with cancerous masses often in clusters. The great omentum was also morbid, and there was a large mass in the liver and right pleura. The cells were of the epithelial type.

The same gentleman showed the Brain of a man aged 34, who had died of bronchitis. He found the anterior portion of the brain atrophied, the grey matter removed, and in its place connective tissue and hæmatoid crystals. Blood had been effused and absorbed, but no history could be obtained.

Dr. Powell gave the case of a woman, aged 21, with an obscure history, but who, when seen, complained of headache, which by-and-by was followed by vomiting, ending in coma and death. There was hæmorrhage into the corpora striata. Round about the tissue was soft, and some of the vessels bulged out.

Dr. Greenhow exhibited a specimen of Pearl Button-maker's Lung which had been secured by Dr. Russell, of Birmingham. The patient had died of strangulated intestine. The lung was thickened and nodular, with fibrous tissue and much pigment. Round these the lung was softened and inflamed as in the lung of certain other operatives.—Also a specimen of exceedingly Chronic Phthisis, the lung being of a deep black colour, with fibrous bands, consolidated and nodular. The left bronchia were plugged with blood.

Sir Henry Thompson showed a very curious Tumour of the Bladder removed from a man aged 54. His water came dribbling away, and he lost blood; but nothing could be detected. He thought there might be a villous tumour owing to the symptoms and the negative signs. After death a long narrow pedicle was discovered, having at its extremity two tumours the size of figs, and having a nævoid structure. The ureters were dilated.

Dr. Leared showed a specimen of Cancer of the Kidneys in a man aged 64. Four years ago he had an attack like renal calculus. A tumour gradually formed in the hepatic region, and he suffered great pain in the left leg. The left kidney proved to be enlarged and cancerous.

Dr. Murchison exhibited a specimen of dissecting aneurism causing death by peritonitis. The patient had pleuro-pneumonia, but got rather better, when he was attacked by peritonitis, and died in three months from exhaustion. The cause was supposed to be malignant disease, but turned out to be aneurism, which had burst in two places, upwards in the pleura and downwards behind the portal vein.

The same gentleman exhibited certain specimens illustrative of Plugging in Relapsing Fever. The patient got gangrene in the relapse. There were also deposits in the spleen and kidneys, as well as in the middle cerebrals, causing softening of the brain. There was no heart disease.

Dr. Payne showed several specimens of Vomicæ in the Lung,

of Peritoneum Thickened by Tubercle, and another somewhat allied.

Mr. J. D. Hill showed a very curious tumour depending from the palate of a seven months' fœtus, and Mr. Spencer Watson a tumour supposed to be stroma.

Dr. Quain exhibited a specimen of Fatal Stricture of the Pylorus, consisting of the stomach which had been removed from the body of a gentleman aged 53 years. It is seen that the walls of the viscus become thicker and firmer as they approach the pylorus. This altered condition had become such at the outlet from the stomach as to cause, I am told, for I did not see the specimen before it was laid open, complete obstruction to even the passage of liquids. This complete obstruction, and the presence of a small gland of almost stony hardness in close proximity to the diseased wall of the stomach, are the points which seem, in a pathological point of view, to claim the attention of the Society. An examination of the more minute textural changes will probably be thought worthy the attention of the Morbid Growths Committee. Except that the liver was said to be large, the other organs of the body were said to be healthy. I had been asked to see the subject of this lesion with Dr. Marsden, to whom I am indebted for the specimen, and subsequently in consultation with Mr. Hancock and Sir William Fergusson, for obstinate constipation and vomiting. The history given was simply that the patient had long been subject to what he called bilious attacks, and for which he was accustomed to take calomel and similar remedies. When I first saw him he complained of vomiting; everything which he swallowed came back within an hour or two partially digested, and having generally an acid reaction. His bowels had not acted for three days, and then only as the result of a copious injection. His tongue was furred, his body was thin, but there was no constitutional disturbance. His urine was scanty and high-coloured, and it contained neither albumen nor sugar. On examining the belly with a view to ascertain the cause of the symptoms, one felt towards the left side midway between the umbilicus and the ribs a swelling which gave the impression of being about the size of a flattened walnut. The patient was conscious of pressure being made on this point, but did not complain of pain. Various remedies were prescribed, but without effect. The vomiting continued, so did the constipation. There was no action of the bowels during sixteen days, when he died exhausted. He never complained of pain; there was no blood in the vomited fluids at any time, nor was there a smell or other appearance of fæces. The constant vomiting of everything taken by the mouth, and the obstinate constipation, established the conviction that there was complete obstruction of the bowels. The diminished secretion of urine rendered it probable that the obstruction was situated high up in the bowels, an impression further confirmed by the absence of fæcal vomiting. The discovery of a small tumour existing at or near the pylorus led to the formation of a diagnosis which was fully confirmed by the post-mortem examination.

CLINICAL SOCIETY.

Friday, May 13.

Dr. Greenhow in the Chair.

Dr. Bäumler brought before the Society a patient, aged 65, with a Peculiar Affection of the Skin beneath her right breast, resembling that which Addison had called "keloid," and for which Dr. Hilton Fagge has lately proposed the name "circumscribed scleriasis." It consisted in a hardness of the skin affecting apparently more the layer of tissue immediately underneath than the cutis proper, and giving the impression as if a thin plate of ivory were lying underneath the skin. It had caused some retraction of the ridge beneath the breast. There was a chain of somewhat enlarged and hard glands near the anterior border of the axilla, which raised a suspicion as to the affection being of a cancerous nature. It had been coming on for about seven years, and was by the woman referred to an injury to the part caused by leaning with great force against the edge of an earthenware pan, which, at the time, caused considerable pain and a feeling as if something had given way in the breast.

Dr. Fagge thought the amount of pain unusual. The chain of glands implicated might be produced by excoriation. He had a case of Addison's keloid, which had completely recovered. Dr. Baumler's had lasted longer than any on record.

Mr. Lee considered the disease to be cancerous. There was induration extending quite through and beneath the skin; keloid was superficial. The glands were also indurated and enlarged.

Dr. Beigel asked if any microscopical examination of the structure had been made. The length of time it had lasted was against the cancer theory; whether it was keloid was still doubtful. He had seen similar cases styled vitiligo. The question lay between these.

Dr. Bäumler said no microscopical examination had been made. In one case of keloid recorded the glands had been enlarged.

Dr. Morell-Mackenzie read two cases of Stricture of the Œsophagus. The first case was that of a man, aged 58, who had experienced difficulty of swallowing for four or five years. He had suffered no pain; but the difficulty had gradually increased, so that at the time of application he was quite unable to do more than chew meat, swallowing the juice and rejecting the solid residue. Liquids could only be taken in sips. He weighed seven stone twelve pounds. The patient had never had syphilis. Bougies of increasing sizes were passed for twelve months, at the end of which time he was able to eat meat by cutting it small. He is now able to eat any sort of food without any sense of obstruction, and his weight has increased nearly two stone and a half since he was first seen. The second case was to illustrate the advantage of an "œsophageal dilator" invented by the author. The instrument consisted of a hollow gum-elastic tube, the end of which was made of hard india-rubber, with four slits in the sides. Inside the whole length of the tube was a piece of wire with a bolt at the lower end, and when the bougie had been passed through the stricture the bolt was pushed down so that the india-rubber portion was dilated four sizes larger. The advantages were—(1) great gain of time, an important feature in cases where the prominent symptom is inanition; (2) the greater ease and certainty with which strictures can be dilated than with conical bougies. The patient had dysphagia caused by swallowing soap lees eleven years previously. At first a No. 5 bougie could be passed with difficulty through a very tight stricture opposite the sternal notch. At the end of three months a No. 11 was easily introduced. The patient then discontinued treatment for a year. The dilator was then used, and in a month a No. 16 could be passed with ease. Dr. Mackenzie recommended this instrument for non-malignant and traumatic strictures.

Mr. Henry Lee said a case had recently been published in America where the œsophagus was closed. Gastrotomy was performed, but the patient died. He had seen a somewhat similar case with Dr. Ogle, occurring in a female. She could hardly swallow, yet there was not much loss of flesh. In both there was a syphilitic history.

Mr. Croft said there was one objection to the instrument. When its portions came together, the mucous membrane might be entangled and injured. In several cases he had seen, bougies had been serviceable. Was there any special advantage with regard to relapse in using this dilator?

In reply, Dr. Mackenzie stated that he quite agreed with Mr. Henry Lee that many of these cases were syphilitic, and he himself had treated several by internal administration of iodide of potassium, and without any mechanical treatment, with the very best results. In reply to Mr. Croft, he had not found any pain complained of in the use of this instrument, nor did he think there was any fear of injuring the mucous membrane. These cases had been brought forward, not because they were particularly novel, but because many of the most eminent Surgeons of the day object to mechanical treatment. He believed that the objection was founded on the pathological doctrines put forward some years ago, that stricture of the œsophagus was invariably dependent on cancer. More recent investigations, however, tended to show that many cases were due to simple inflammatory deposit and to syphilitic dyscrasia. Such cases were most amenable to treatment.

Dr. Greenhow read a case of remarkable Progressive Fall of Temperature during several days before death. The patient was under observation nine days, and died with symptoms somewhat resembling those of the last stage of general paralysis of the insane, the brain being found on examination atrophied, and the arachnoid thickened and opaque. The thermometer began to descend a week before death, and fell gradually to 84° in the axilla and 85° in the rectum.

In reply to Dr. Church, it was stated that the temperature after death was not noted.

Dr. Fagge said, in a patient in Guy's Hospital there had been very low temperature for several days before death.

Dr. BUZZARD said a great depression of temperature, with slow pulse and respiration, was most unusual. Wünderlich had noted no such cases. Was there any uræmia?

Dr. GREENHOW said the urine was healthy.

Mr. KESTEVEN described a case of Epileptiform Stupor in a child 2 years old, which was cured by the administration of bromide of potassium in five-grain doses three times a day. The attacks had continued about a month, occurring several times a day and lasting from a few minutes to three or four hours. They were sometimes associated with screaming fits.

The meeting was then made special for the consideration of the amalgamation scheme.

Mr. GASCOYNE moved and Dr. BRISTOWE seconded a resolution adopting the scheme of the Royal Medical and Chirurgical Society, which was carried *nem. con.*

Mr. CROFT proposed, and Dr. SOUTHEY seconded, a vote of thanks to the delegates, which was carried.

OBITUARY.

JAMES COPLAND, M.D., F.R.S.

ANOTHER great name is to be added to the list of the illustrious dead. James Copland, the "Johnson of Medicine," died at his residence, Hertford House, Brandesbury-road, Kilburn, on the 12th inst. He was in his 79th year. He had been laid up only a few days, though for a long time past his physical infirmities had prevented him from practising. He was present at the *soirée* of the College of Physicians last month, and though suffering from gout of a chronic kind, showed no signs of breaking up. He was born in the "stormy Orkneys," in November, 1792, his father's house standing on the site of the last battle fought by Haco. His father subsequently removed to Lerwick, one of the Shetland Islands, and it was here that the early boyhood of young Copland was passed, his first schoolmaster being the parish clergyman of the town. Dr. Copland always considered that he owed most of the extraordinary vigour of constitution which he enjoyed to his early athletic sports, of which he was passionately fond, and which he exercised up to a late period of his life. I have heard him say he was one of the strongest men in the university, and not only muscularly so, but could endure great fatigue, and was strong in vital power. In his 16th year he matriculated at the University of Edinburgh, and studied chiefly under Ritchie, Dugald Stewart, and Playfair. At the end of four years he entered the Medical classes, and became a student of Barclay, Monro, Home, Gregory, Gordon, and Duncan. He graduated in 1815, and came immediately to London. In August of the same year he went to Paris and Germany, and studied in the French and German schools for two years. Soon after his return to London he became one of the Medical officers of the African Company, and spent twelve months in their service on the Gold Coast. He then returned, "having," as he said, "had enough of it." He suffered much from the climate, and had dysentery, but he was indefatigable in his duties, and studied the various diseases incidental to intra-tropical countries. On his return he went to Paris again, returned to London in 1820, and became a Licentiate of the College of Physicians in 1820. Latham was President, and he and the other examiners were astonished at the large doses of cinchona which Copland had been in the habit of exhibiting in ague and remittent fevers.

He first started in practice at the "Terrace" in Walworth, where he lived next door to Mr. James Dixon, an eminent member of the Common Council, who was exceedingly kind to the young Doctor. Copland was in the habit of speaking of his old neighbour, in after life, with much respect and affection. In 1822 he removed to Jermyn-street to a house close to St. James's-street. The fees came in slowly, and he employed himself in writing articles for the *Foreign Quarterly Review*, the *Medical Repository*, and the *London Physical Journal*, the "yellow fungus" of the *Lancet*. On January 1, 1822, he was offered, and accepted, the editorship of the *Medical Repository*, succeeding in that capacity Dr. Urwins. The work was published by Underwood. On March 8 the same year he delivered the oration at the Medical Society of London, taking for his subject "Galvanic Electricity," in which he endeavoured to show that electricity and its different conditions and states was the motive power in gravitation. He found that his connexion with periodical literature was of no use to him in practice; and accordingly in 1824 he brought out a new edition of Richerand's "Physiology," with copious notes, and another edition in 1829. In these and in his journal he enlarged on the importance of the ganglionic system. In the *Medical Repository* he wrote elaborate articles on this system, and on the pathology of fever, also on terebinthinate remedies in disease. He also contributed notes to Griffith's translation of Cuvier's "Animal Kingdom," in which he published some original views on the influence of the food of man on the species. His colleagues on the *Repository* were Dunglison, Conolly, and Gordon Smith, the author of a work on Medical Jurisprudence, which in its day was very popular. During his temporary absence on one occasion, Smith attacked the *Lancet*, and in consequence a fierce war was carried on by the contending journals for some years afterwards. The nickname for the *Repository* was "The Nasoleum." In 1825-6 Annesley, who had practised in Madras, brought over with him some very beautiful drawings illustrative of the diseases of India. Copland having written an article on cholera in his journal became in consequence acquainted with Annesley, who called upon him to ask his opinion respecting the publication of a book. This interview resulted in Copland being engaged to assist Annesley in his great work, and this he did to such an extent that he (Copland) may be considered its real author. This work was published at the expense of the East India Company in two immense volumes, the price being fourteen guineas. He finished Annesley's work, for which he got handsomely paid, in 1827, and was then getting into practice. At this time, 1827, he printed a prospectus of a plan for bringing out an encyclopædia of Medical science, and made an arrangement with Messrs. Baldwin and Cradock to publish it. The arrangement, however, was not carried out, Baldwin considering the work would be too voluminous. That publisher subsequently entered into an undertaking with Drs. Forbes, Conolly, and Tweedie, to bring out "The Cyclopædia of Practical Medicine." This circumstance gave rise to the publication of Dr. Copland's great work, the "Dictionary of Practical Medicine," which was published by the Longmans. The first part made its appearance in September, 1832; the price was 9s. Dr. Copland used to say that the Cyclopædia had sixty contributors to it—"I did all the work of my dictionary alone." Though this was not literally correct, it was substantially so, for there is no doubt he wrote all of it himself, but he was assisted in getting up references, and making abstracts of papers and cases which had appeared in the different Medical periodicals. His assistant for some years was the late Dr. Herbert Barker, of Bedford, who resided in his house. Dr. Copland was in the habit of writing at night. He dined between 5 and 6; took two or three glasses of wine; had half an hour's nap till tea. He went to work about 8, and continued without intermission until 2 or even 3 in the morning. He occasionally wrote in the daytime, when he was not busy in practice. He never took more than five or six hours' sleep. This hard work gave rise to headaches. He was cupped on one occasion to 35 oz., and never had a headache afterwards. He always studied his subject well before he commenced to write it, and never rewrote a single page of MS. When twenty or thirty pages were written, he sent them to the printer, always reserving two pages of MS. for the connexion of the matter. The new work was received with great favour by the press, and the first edition sold 5000, a reprint also of 5000, all sold, and more were printed afterwards. The work was printed in America, and translated into German. 'Many authors," said Copland, "cribbed from it without any, acknowledgment." He was paid £4000 for his dictionary, and £1000 for the abridgment. The work appeared very regularly at first, and a great part of it was published in three years; five parts came out at 9s., the others at 4s. 6d. There were twenty numbers altogether, forming four large volumes. The last number of the dictionary appeared twenty-eight years after the first. The long delay was due to ill-health—to, in fact, overwork, and it gave rise to much unpleasantness between Copland and his publishers. But this was made up, and they were excellent friends to the last. At the time of his death he was occupied in writing his autobiography and his recollections of men and things—how much he had written I do not know, but I think it probable he had only commenced the book.

J. F. C.

(To be continued.)

RESPECTING the dry ash-pit system, Dr. Syson remarks "Nothing positive can be said as to the success or non-success of the new system of dry ash-pits, until it has stood the test of a hot summer. I consider the fact that by means of it the old wet, sunken ash-pits are for ever abolished, to be in itself a great step in the right direction."

MEDICAL NEWS.

KING'S COLLEGE, LONDON.—Medical department, 1870:—

SCHOLARSHIPS.

Batterbury, George Henry, Junior Scholar and Warn. Schol., Class I.
Briggs, George Chapman, Warn Schol., Class II.
Gibbings, Ashley, Junior Scholar and Warn. Schol., Class I.
Letts, Edmund Albert, Daniell Scholar.
Lyell, Robert Wishart, Senior Scholar.
Philpot, Joseph Henry, Second Year Scholar.
White, Ernest William, Junior Scholar.

ANATOMY.

Prize.—Gerald Bomford.
Certificates of Honour.—Gustavus Hartridge, Frederick Parlett Fisher Ransom, Andrew Duncan, Thomas John Jeakes, William Edward Webb, and William John Henry Lush.

PHYSIOLOGY.

Prize.—Andrew Duncan.
Certificates of Honour.—Frederick Parlett Fisher Ransom, Gerald Bomford, Robert Birch, William Edward Webb, Clement William Harris, and Vincent Philps.

CHEMISTRY.

Prize.—Gerald Bomford.
Certificate of Honour.—Andrew Duncan.

MEDICINE.

Prize.—Alexander Wynter Blyth.
Certificate of Honour.—Francis Warner.

SURGERY.

Prize.—Alexander Wynter Blyth.
Certificates of Honour.—Walter Berry and William Rose.

CLINICAL MEDICINE.

Prize.—Alexander Wynter Blyth.

CLINICAL SURGERY.

Prize.—Walter Berry.

Prizes and certificates gained in the summer session, 1869:—

PRACTICAL CHEMISTRY.

Prize.—Andrew Duncan.
Certificates of Honour.—Gustavus Hartridge, Stanley Alexander Robinson, and Arthur Nicholson.

FORENSIC MEDICINE.

Prize.—Alexander Wynter Blyth.
Certificates of Honour.—William Allnutt and George Le Hunt Rowland.

BOTANY.

Prize.—Alexander Wynter Blyth.
Certificates of Honour.—Joseph Numa Rat and Frederick Parlett Fisher Ransom.

OBSTETRIC MEDICINE.

Prize.—Eleazer Birch Roche.
Certificates of Honour.—Robert Baker Morrell and William Allnutt.

MATERIA MEDICA.

Prize.—Walter Berry.
Certificates of Honour.—Frederick Parlett Fisher Ransom and Edward Rice Morgan.

COMPARATIVE ANATOMY.

Prize.—George Le Hunt Rowland.

CLINICAL SURGERY.

Prize.—Eleazer Birch Roche.
Certificate of Honour.—Charles Tanfield Vachell.

TODD MEDICAL CLINICAL.

Prize—Robert Wishart Lyell.

Names of those recommended by the Principal and Professors for election as associates of King's College, London:—

John Hougham Bell, Robert Wishart Lyell, Charles Henry Mayhew, Frederick William Parsons, Edward Hepburne Seccombe, John Richard Algernon Taylor, and Alfred Woodward.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 7, 1870:—

Burton, Frederick, Ordnance-road, N.W.
Parmiter, Henry, Dorchester.
Vickers, William, Albany-road, Regent's-park.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ADAM, JAMES, M.D., L.R.C.S. Ed., Senior Assistant-Medical Officer Colney-hatch Asylum.—Medical Superintendent of the Metropolitan Asylum at Caterham.

CAMPBELL, WILLIAM, L.R.C.S. Edin., L.S.A.—Assistant-Surgeon to the East Sussex, Hastings, and St. Leonards Infirmary.

WYLLIE, Dr. JOHN, F.R.C.P. Ed.—Lecturer on General Pathology and Pathological Anatomy in the Medical School, Surgeons' Hall, Edinburgh.

MILITARY APPOINTMENTS.

ROYAL ARTILLERY.—Staff Assistant-Surgeon William Langworthy Baker, to be Assistant-Surgeon, *vice* James Robert Gaussen, M.B., deceased.

BREVET.—Apothecary John Leahy, of the Bombay Subordinate Medical Establishment, to have the honorary rank of Assistant-Surgeon.

BIRTHS.

ANDREWS.—On July 6, at 1, Oakley-square, London, the wife of Henry Charles Andrews, M.D., of a son and daughter.

TURNER.—On July 9, at 30, Margaret-street, Cavendish-square, the wife of J. S. Turner, M.R.C.S., of a son.

WAITE.—On July 13, at St. John's College, South Penge-park, the wife of Dr. Waite, of a son.

WATSON.—On July 8, at Thaxted, Essex, the wife of George S. Watson, M.R.C.S., of a son.

MARRIAGES.

BRETT—WILMOT—On July 2, at St. Saviour's, Bath, Thomas Brett, of Guildford-street, London, to Leonora Flint, only daughter of Dr. Wilmot, Bath.

CORY—BALLANTINE.—On July 7, at Girvan, Ayrshire, Edward Cory, of London, to Helen Macpherson, second daughter of Robert Ballantine, M.D., J.P.

HARVEY—SANSON.—On July 5, at Hampstead Church, Thomas Harvey, Surgeon, of Poplar, to Emma Sanson, second daughter of George Sanson, Esq., of Inverness Villa, Hampstead.

KIDD—WOODALL.—On June 28, at the parish church, Ahoghill, near Ballymena, county Antrim, Ireland, Abraham Kidd, M.D., F.R.C.S., of Ballymena, to Ann Dowker, only daughter of the late Thomas Dowker Woodall, Esq., of Scarborough.

LOWE—CRONIN.—On July 7, at Brixton, Surrey, John Henry Lowe, late R.M., and Warden of the Goldfields, Nelson, New Zealand, second son of John Wm. Lowe, barrister-at-law, of the Middle Temple, to Charlotte Amyatt, daughter of Edward Cronin, M.D., of Claremont House, Brixton.

STONE—HOOPER.—On July 11, at West Lavington, Wilts, by the Rev. Matthew Wilkinson, D.D., Prebendary of Salisbury, William Domett Stone, M.D., F.R.C.S. (Exam.), of 31, Myddelton-square, to Emily Josephine, only daughter of William Hooper, Esq., of Littleton House, West Lavington.

TOWNSEND—MILTON.—On July 7, at St. Barnabas Church, South Lambeth Meredith Townsend, M.R.C.S., L.S.A., of Kensington, eldest surviving son of H. M. Townsend, Esq., of Thurlow House, Clapham-rise, to Anne Clara Edith Milton, eldest daughter of John Milton, Esq., of Elgin-villas, Clapham.

WILLIAMS—SAVOURS.—On July 7, at St. Paul's, Newport, Mon., Josiah Williams, L.R.C.P., to Rosina Margaret, only daughter of J. Savours, Esq., Tynyrheal House, Meath, Glamorgan.

DEATHS.

COPLAND, JAMES, M.D., F.R.S., etc., late of 5, Old Burlington-street, at his residence, Hertford House, Brondesbury-road, Kilburn, after a short but painful illness, on July 12, aged 79.

LEE, JAMES, M.D., Surgeon-Major, retired list, Bengal Army, eldest son of the late Very Rev. John Lee, D.D., Principal of the University of Edinburgh, at 3, Melville-crescent, Edinburgh, on July 10.

PHILLIPS, EDWARD ENGLAND, late of Pound-close House, Chilton Polden, Somerset, and 9, Norfolk-crescent, Bath, at 81, Adelaide-road, N.W., on July 5, in the 56th year of his age.

WILLISFORD, WILLIAM, M.D., son of the late John Willisford, Esq., of Chelsea Hospital, at Radcliffe House, Colombo, Ceylon, on May 25, in the 56th year of his age.

VACANCIES.

In the following list the nature of the office vacant, the qualification required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the President of the Infirmary, on or before the 20th inst.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to the Medical Committee on or before the 21st inst. Election on the 25th.

EASTERN DISPENSARY, BATH.—Assistant Medical Officer; must be M.R.C.S. and L.S.A. Applications and testimonials to R. E. Crickitt, Esq., 4, Belvedere-villas, Bath, on or before the 31st inst. Notice of the day of election will be sent to selected candidates.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, W.C.—Medical Registrar; must have some qualification. Applications and testimonials to the Secretary, on or before the 20th inst.

HULME DISPENSARY, MANCHESTER.—House-Surgeon. Applications and testimonials to the Chairman of the Medical Committee, Drake-street, Manchester, on or before July 27.

LEEDS PUBLIC DISPENSARY.—Assistant Resident Medical Officer; must have a legal qualification and be registered. Applications and testimonials to Mr. C. J. Wright, 2, Park-square, Leeds, on or before July 16.

LIVERPOOL ROYAL INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to the Chairman of the Committee on or before the 19th inst.

LONDON HOSPITAL, WHITECHAPEL-ROAD, E.—Medical Clinical Assistant; must possess a qualification to practise. Applications and testimonials to the "House Committee," on or before the 25th inst.

NEWPORT UNION, MONMOUTHSHIRE.—Medical Officers required for the following districts of this Union:—Bedwas, Risca, Marshfield, Caerleon, and Magor. Candidates must be duly qualified and registered, and will be required to reside in the districts to which they are appointed. Applications and testimonials to W. D. Evans, clerk, on or before August 12. Election on the 20th.

OSWESTRY DISPENSARY.—Secretary and Dispenser. Applications and testimonials to J. S. Davies, Surgeon, Oswestry.

ROYAL BERKSHIRE HOSPITAL, READING.—House-Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary, on or before August 1. Election on the 16th.

University of Durham College of Medicine, Newcastle-on-Tyne.—Medical Tutor. Applications and testimonials to Mr. Luke Armstrong, at the College, as above.

Western General Dispensary, 264 and 266, Marylebone-road, N.W.—Resident Surgeon and Apothecary; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary, on or before July 25. Election the same day at 8 p.m.

Windsor Royal Infirmary and Dispensary.—House-Surgeon, and also a Dispenser. Applications and testimonials to the Secretary, Mr. G. Cartland, 16, Park-street, Windsor, on or before July 27.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Carmarthen Union.—The Mydrim District is vacant; area 24,503; population 3,392; salary £30 per annum.

Freebridge Lynn Union.—Mr. T. M. Kendall has resigned the South-Western District; area 8,144; population 1837; salary £28 per annum.

Medway Union.—Mr. John J. Ely has resigned the Workhouse; salary £80 per annum; and the Second District; salary £65 per annum.

APPOINTMENTS.

Eastry Union.—John F. Williams, L.S.A., to the Eythorne District.

Liverpool Parish.—Frederick W. Lowndes, M.R.C.S. Eng., L.S.A., L.M., to the Fifth District.

Malton Union.—Henry Dodd, M.R.C.S. Eng., to the Killington District.

Sheffield Union.—Wm. James Le Tall, M.R.C.S. Eng., L.S.A., to the Handsworth District.

Stamford Union.—Wm. Row, M.R.C.S. Eng., L.S.A., to the Clipsham District.

Sudbury Union.—Edward L. Fenn, M.R.C.S. Eng., L.R.C.P. Lond., M.B. Univ. Edin., to the Sixth District.

Tamworth Union.—Thomas H. Cresswell, M.R.C.S. Eng., L.S.A., to the Clifton District.

New Fellows.—At a meeting of the Council of the Royal College of Surgeons on Thursday last, the following Members of the College having been elected Fellows at previous meetings of the Council were admitted as such, viz:—Messrs. Henry Harris, M. and L.S.A. Lond., Redruth, Cornwall, diploma of membership dated May 13, 1833; William Gosse, L.S.A., Adelaide, South Australia, November 20, 1835; and Thomas Taylor, Warwick House, Warwick-place, S.W., April 7, 1837.

University of Dublin.—Trinity College.—The Medical travelling prize has been awarded to James Albert Clery; the Surgical travelling prize to William Edward Battersby. William F. Burton and Charles H. Ball have been elected Medical scholars.

Translation of Professor Helmholtz to Berlin.—Heidelberg is shortly to lose its most famous Professor, who has received a summons from Berlin to fill the chair of the late Professor Magnus. This is indeed a chair of Physics while that of Helmholtz at Heidelberg is Physiology; but our readers are well aware how high is the rank he also holds as a physicist and mathematician. It is indeed from a combination of these various sciences that some of his most celebrated physiological researches have resulted.

Elections of Corresponding Members at the Académie des Sciences.—Two of these occurred at the meeting of the Academy, July 4. One was in the section of Medicine and Surgery, in the room of Mr. Lawrence. On the list of candidates the name of Prof. Lebert, of Breslau, was placed on the first line; on the second in alphabetical order the names of Mr. Bowman, London, and Prof. Donders, Utrecht, were placed; and on the third Prof. Bennet, Edinburgh, Prof. Hammer, Copenhagen, Prof. Kölliker, Wurzburg, and Mr. Paget, London. There were thirty-nine members present and thirty-six voted for Mr. Lebert. In the Section of Anatomy and Zoology Prof. Carus's place had to be filled up; Prof. Brandt, St. Petersburgh, was placed on the first line, and the following names on the second in alphabetical order:—Prof. Bischoff, Munich, Mr. Darwin, England, Prof. Huxley, London, Prof. Hyrtl, Vienna, Prof. Leuckart, Leipzig, Prof. Loven, Stockholm, Prof. Steenstrup, Copenhagen, and Prof. Vogt, Geneva. Of the thirty-eight members present Prof. Brandt obtained the votes of twenty-two, and Mr. Darwin of sixteen.

Health of Salford.—In Dr. E. J. Syson's report for 1869, he states that during the year 3180 persons have died; of this number 1677 were males, and 1503 females, showing a difference of 174 in number between the sexes. The death-rate for 1869 has been 26·64 per 1000 per annum. The death-rate for 1868 was 30·76. The birth-rate for 1869 has been 39·35. The birth-rate for 1868 was 39·62. Of the total deaths, 1535, or 48·27 per cent. were of children under 5 years of age. Of these 911 occurred under the age of 12 months. The birth-rate has exceeded the death-rate by 1501, or 12·71 per 1000 per annum.

Gas Supply of the Metropolis.—Dr. Letheby in his report on this subject has given a differential account of the impurities of the London gas. These vary considerably, and are attributed to the various modes of purification resorted to by the companies, and to which he directs special attention.

A Hospital for Bolton.—Mr. S. Blair, formerly M.P. for Bolton, has left £20,000 to build and furnish an Hospital, and £10,000 to endow it. It is to be called the "Blair Hospital."

Great Heat at Malta.—Notwithstanding the great heat at this place (the thermometer ranging from 84° to 92° in the shade), and a thick and cloudy atmosphere, the health of the civil, military, and native population is unusually good.

Hydrophobia in a Pony.—The papers report a case of hydrophobia in a pony, which bit itself in various places, and one or two persons narrowly escaped biting by it.

Vaccination.—The small-pox having appeared in Belfast, several persons have been summoned by order of the Board of Guardians, and convicted and fined for breaches of the Vaccination Act. In many cases the defendants urged that the Medical man who had vaccinated their children had refused to give the necessary certificate. The prosecutor informed the Court that a large list of names was being made for further prosecutions, and Dr. Rea, one of the Medical officers, stated that the guardians had directed the relieving officer to prosecute in every case. At Stockton, the case of James Clennett, who has been fined twice for refusing to have his child vaccinated, was brought before the Board of Guardians at their last meeting; and the Chairman recommended that he should be brought up again, and the proceedings continued until he had it done.

Forfarshire Medical Association.—The twelfth annual meeting of this association was held on the 7th inst., at Arbroath, in the White Hart Hotel,—Dr. David Arrott, President, in the chair. The minutes of last annual meeting and of a subsequent meeting of Council were read and approved of. Dr. Waunan then proposed, and Dr. Dewar seconded, the following office-bearers for the ensuing year, viz:—President, Dr. Johnston, Montrose; Vice-Presidents, Dr. Lawrence, Montrose, Dr. Lyell, Dundee; Hon. Secretary, Dr. Duncan, Dundee; Hon. Treasurer, Dr. Campbell, Dundee; Council, Drs. Arrott, Gibson, Crockatt, Pirie, Miller, and Macbain, Dundee; Local Secretaries, Dr. Dewar, Arbroath; Dr. Lawrence, Montrose; Dr. Mackie, jun., Brechin; G. P. Alexander, Esq., Forfar. Two interesting papers were then read—one by the President on "Notes of Cases of Scarlatina;" the other by Dr. James Arrott, Dundee, on "Eruptions in the Continued Fevers of this Country." An interesting and animated discussion followed the reading of these papers, in which Professor Christison, Drs. Cocks, Christie, and others took part. The members and their distinguished guests afterwards sat down to a sumptuous dinner, purveyed for them by Mr. Cloudesley, of the White Hart—Dr. D. Arrott, the President, in the chair, and Dr. Wannan, Vice-President, acting as croupier. Among other toasts "The University of Edinburgh" was proposed by Dr. James Arrott, coupled with with the name of Professor Christison. Dr. Arrott, in proposing this toast, took occasion to animadvert strongly on the mode of filling up the chair in the Edinburgh University, as exemplified in the recent election to the Midwifery chair, which had occasioned such deep and widespread dissatisfaction. And he thought the time had come for divesting town councillors *in toto* of all power and voice in such appointments. He was sure that the University of Edinburgh had the best wishes of this meeting for its continued celebrity and usefulness. (Cheers.) Professor Christison, in reply, said he was not like some people who set no value on good wishes, for he thought they were not unfrequently the precursor to good luck. The evil to which Dr. Arrott had alluded in the mode of filling up chairs in the Edinburgh University had, he trusted, now reached its acme; and when matters reached their worst, there was hope they would mend. He trusted some such change as had been wished for would take place soon. So long as town councillors have to do with these elections motives altogether apart from the merits of the candidates will influence their conduct. When he was elected a Professor, now thirty-eight years ago, there were thirty-three town councillors, and he had often mentioned in private what he now stated publicly, that, of those who supported him, only two did so because they thought him the best man. (Hear, hear.) He was much gratified to see such affection manifested everywhere towards the Edinburgh University on the part of its former pupils and graduates, and he was sure from what he had ob-

served to-day, this feeling existed as strongly in Forfarshire as in any other part of the country. (Applause.)

CURE OF SNAKE BITE BY PROFESSOR HALFORD'S PLAN OF TREATMENT.—The *Melbourne Argus* of May 6 contains an interesting case of snake bite cured by Dr. Halford's process. The points of interest in the case are the instantaneous effect of the ammonia when injected in sufficient quantity into a vein, and the safety of its repetition; whereas, simply throwing it under the skin is far less efficacious, and leads to subsequent sloughing. The patient, a woman, was bitten by a brown snake about 9.30 a.m. After various modes of treatment had been resorted to without much benefit, including a couple of subcutaneous injections of morphia, the narrator of the case says:—"On seeing her at half-past 5 p.m. she was being walked about, her feet dragged as if almost powerless, like a drunken man's after a heavy spree, the head incapable of being held erect, bending forward on the chest, the face pallid, the eyes dull, the breathing heavy with some frothing at the mouth, and occasionally vomiting; able to speak languidly, however, asking to be let alone, and when allowed a few moments' rest settling into a slumber. On laying bare a vein in the arm, a charge of diluted ammonia (one part to two of water) was injected from a six-minim hypodermic syringe, the effect of which was barely perceptible. Within ten minutes, the injection being repeated, it had an almost instantaneous and magical effect, the breathing becoming hurried, the head erect, the countenance commanding, with such perfect use of legs and arms as to kick her slippers over the garden fence, and endeavour to burst away from the men who had hitherto been supporting her. After a little, this apparently insane paroxysm gave way to a cheerful and conversable manner, and in the course of twenty minutes or so, perceiving an approach to her former low state, I repeated the injection with good effect, but not so marked as in the previous one, after which I gave two or three injections as the effect of the prior ones subsided, and by midnight she was out of danger, although apparently so at half-past eight p.m. The woman had no recollection of anything that occurred from the time of stupor setting in at noon till near midnight. Some of the wounds sloughed, and were a month in healing. They were treated with vinegar poultices."

HÆMOSTATIC COLLODION.—Dr. Pavesi recommends the following formula:—Officinal collodion, 100 parts; phenic acid, 10; tannic acid, benzoic acid, of each 5 parts. Mix by shaking. This collodion is of a brownish colour, and adheres more closely to the tissues than the ordinary collodion. It immediately coagulates blood or white of egg, and may be applied either by means of a pencil or by soaking strips of linen in it.—*Union Méd.*, July 7.

ABORTION OF SMALL-POX PUSTULES.—M. Boinet states that this can be effectually accomplished by painting the pustules we wish to prevent being followed by indelible cicatrices, with tincture of iodine. A single daily application suffices, but it must be commenced at the first appearance of the eruption, and continued during five or six days.—*Union Méd.*, July 5.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Hollins X.—The coroner should be informed, and let him decide as to holding an inquest. The rest next week.

T. Davidson.—The paper is in the hands of the printer, and shall appear as soon as is possible, but we cannot yet give the exact date.

A Subscriber.—Seeing that there is an M.B. and an M.D. granted by the same institution, we should say decidedly not. Secondly, the M.D. can only be obtained by *Bachelors* of three years' standing.

THE PRINCIPLE OF THE MEDICAL BILL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I trust I may be permitted to remind you that the principle involved in clause 18 of the Medical Bill has ever been acted upon by the universities in reference to degrees in divinity. The universities have no power to confer the degree of either B.D. or D.D. upon any who have not been previously ordained. My knowledge of this fact is confined to the English universities empowered to grant those degrees, and also to Trinity College, Dublin. But that is quite sufficient for my illustration. Moreover, their law degrees do not entitle their recipients to practise. Even the former Doctors of Doctors'-commons could not practise by virtue of their degrees alone. They were required, in addition, to be admitted of the Faculty of Advocates, and to be further licensed by the Archbishop of Canterbury, who was deemed the most fitting authority for regulating the practice of the Spiritual Courts, to which their functions were limited. Here, again, the same principle is involved.

I am, &c. HUGH WEIGHTMAN, M.A. Cantab.

5, K ng's Bench-walk, Temple, July 9.

S. P. L.—It is estimated that the increase of population in London from all causes is at the rate of 50,000 persons per annum.

A Sufferer.—The stramonium cigarettes can be obtained at Savory and Moore's.

Pupil.—There is no probability of the Bill becoming law this year.

A Young Milliner.—The address of Dr. C. J. Aldis, Medical Officer of Health, St. George's, Hanover-square, is Chester-terrace, Chester-square.

A QUESTION OF ETIQUETTE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As in matters of etiquette we seem to have no guide except by appealing to public opinion through your columns, I shall feel greatly obliged if you will kindly state your idea as to the correctness of my Professional brother's conduct in the following case:—

For some lengthened period I had been attending a poor girl—a pauper—with chronic disease of lungs and heart. Lately, symptoms of general dropsy set in, and her recovery was despaired of. A kind-hearted neighbour, the wife of a Liverpool cotton broker, wishing for her own Medical man to see my case, sent for him. He came, saw the patient, wrote out his prescription, directing them to send for the medicine to the druggist, and literally took no more notice of me than if I had not existed. The patient died in a week after his visit.

When I tell you that this gentleman used to have one of the best practices in our neighbouring city, is Consulting Surgeon to our county infirmary, was lately president of our branch of the British Medical Association, you will acknowledge that as a star of some magnitude we ought to look up to him; and if you say that his conduct towards me was strictly correct in a Professional point of view, I shall feel that my own index is out of order.

In the present instance, I have no possible feeling in the matter than one of fair dealing one to another. Pecuniary considerations and the chagrin incident to losing a patient are reduced to the lowest point when such patient and all her family are permanent paupers, and must always remain so.

I am, &c.

July 11, 1870. A PARISH DOCTOR.

*** We cannot say that in strict etiquette the gentleman was right; but, on the other hand, there is no evidence of malice on his part. We think if he had written after seeing the patient that might have met the requirements of the case, but certainly some notice should have been taken of the Practitioner in attendance.—ED. *M. T.* and *G.*

Lucus a non Lucendo.—It is difficult to catch at the meaning, but—

"True no-meaning puzzles more than wit."

Reader.—The announcement is thus made in the *Town and Country Magazine* of the time:—"Dr. John Hunter, the great anatomist, died."

A Country Surgeon.—There is no difficulty in obtaining admission. An application should be made to the chief librarian.

R. D.—The case is recorded, with an illustration, in Liston's "Operative Surgery."

Students.—The office is at 32, Soho-square, W. The secretary is Dr. Francis Hawkins.

L. M.—Yes, if he be registered.

Nemo should apply to the Emigration Commissioners.

Leeds.—The portrait of Mr. Nunneley alluded to is contained in "Photographic Portraits of Eminent Medical Men." The photographs are by Mr. Ernest Edwards, B.A. The work is published in parts by Churchill and Sons.

Brighton.—The remarks are in good taste and do credit to the journal in which they appeared.

CHILD BORN WITH SCARLET FEVER EAUPTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—An interesting fact in connexion with the natural history of scarlet fever has recently come under my observation, which I beg to bring before your readers if you think the matter possesses sufficient interest.

On Sunday, the 3rd inst., I was sent for to attend the wife of a labouring man who had been under my care from the previous Friday for scarlet fever, or what is commonly known as scarlatina simplex, when the eruption was beginning to come out, and who was now prematurely in labour at the seventh month. She has borne a number of children, and in all her former pregnancies had gone the full time, so that her premature confinement at this time was plainly due to the influence of scarlet fever, then in the third day of the eruptive stage. The child was born about two hours before my arrival. I immediately examined it, and found the characteristic rash out all over the body, from the scalp downwards, which leaves no doubt in my mind that it had the disease *in utero*. It was naturally to be expected that the child should have been born in an infected state, though I presume not necessarily so. It died early in the morning of Tuesday. The woman, however, is now progressing favourably, though up to Wednesday there were indications of danger, as she was very weak on the day before with a pulse of 124 and some abdominal tenderness over the uterus. At this time, too, the sanguineous discharge, very slight from the first, was pale and almost suppressed. On Wednesday, happily the pulse being down to 85, and the abdominal tenderness gone, I advised that a tablespoonful of castor oil should be taken. I subsequently ascertained that the action of the oil gave her much relief in every way, and was followed by the reappearance of the lochia, and there is now every appearance that convalescence is setting in. On referring to Dr. Ramsbotham's well-known and excellent work on Obstetrics, in the chapter on scarlet fever, he writes to the effect that pregnant females are not so susceptible of infectious diseases as other persons; and that this particularly applies to scarlet fever. The course of an epidemic of this fever just now prevailing in a village several miles from here does not accord with the opinion quoted; for while the fever has attacked the children under puberty of the families where it has entered, the case of this pregnant woman is the only instance of an adult taking it up to the present time, and she was infected by her own children, some of whom were recovering from the fever when she became affected by it.

I am, &c.

WILLIAM CAMPBELL, L.R.C.S. Edin., and L.S.A.

Ore, near Hastings, July 8.

"*Off to the Seaside.*"—Eastbourne is at present, as it has been for a long time past, in a most healthy condition. It has been shown that its death-rate is below that of any other of the thirty-seven towns on the coast resorted to for health and recreation. The outcry raised against this favourite seaside resort had but little foundation in fact. There was some local disease dependent upon preventible causes, but these were soon removed, and there has been no kind of epidemic whatever since. The report of Dr. T. Thorne, the Government inspector, is sufficient to dispel any doubts upon the subject. We understand the number of visitors at Eastbourne this season is very large. There is a first-class school there.

CASE OF CONGENITAL UMBILICAL HERNIA, AND NATURAL CURE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—On August 6, 1869, Mrs. H. was delivered of a female child; the labour was completed before my arrival, and the midwife in attendance invited my attention to the infant on account of a peculiarity in the navel string, which, at first sight, gave rise to the idea of an abnormal development in the cord; on examination, it proved to be a hernia. The tumour was about the size and shape of a little finger in an extreme state of flexion, and on closer inspection, was seen to contain the lower end of the cæcum, the appendix vermiformis being plainly visible. Tried the taxis for fifteen or twenty minutes, but could not reduce the hernia, though the serum in the sac, and flatus in the bowel, passed freely into the abdomen. No other remedial measure was adopted beyond securing the part from pressure and irritation. The cord separated very slowly, and came away on the eleventh day, leaving a cushiony granulating surface, to which I advised the application of a lotion containing carbolic acid and glycerine, and the healing process went on satisfactorily. On the eighteenth day, in the interval between the morning and evening dressing, the hernia had disappeared, having probably been spontaneously reduced during an attack of vomiting which had taken place early in the afternoon. The condition of the little patient from the first was better than might have been expected, being generally quiet and free from pain; there was no crying, even while the reduction by taxis was attempted. The breast was taken and the bowels were relieved with tolerable regularity, the motions being relaxed and of a bright yellow colour; but the occasional occurrence of bilious vomiting plainly indicated an obstructed condition of the alimentary canal. The first motion which passed after the return of the hernia, was of the same yellow colour as before, but the napkin had the singular appearance of being stained with a magenta coloured liquid, which doubtless resulted from the carbolic acid dressing. I am, &c. ALPHA.

COMMUNICATIONS have been received from—

Dr. WOODWARD; Dr. SYSON; Mr. B. LATHAM; Dr. J. STRATON; Mrs. BAINES; Mr. WEIGHTMAN; Dr. MACPHERSON; Mr. F. E. JENCKEN; Mr. J. POLLARD; Mr. J. RAND; Dr. JAYAKAR; A PARISH DOCTOR; Mr. C. BULTEEL; Dr. J. WYLLIE; Dr. T. DAVIDSON; A SUBSCRIBER; Mr. SERGEANT; Dr. BURROWS; Dr. MOXON; Dr. LAWSON; Mr. J. CHATTO; Mr. ARNOTT; Dr. MACPHERSON; Dr. LEARED; Dr. JAMES RUSSELL; Dr. WALTER DICKSON; A. F.; Dr. SEDGWICK; Mr. P. M. HOLMESTED; Professor FAYRER.

BOOKS RECEIVED—

A Pamphlet on the Hardships of Provincial Letter Carriers addressed to the Members of the House of Commons—Report of the Superintendent of the Salop and Montgomery Lunatic Asylum—Traité des Fistules Uro-génitales de la Femme, par L. Deroubaix—Note sur l'Enseignement et l'Exercice de la Médecine en Danemark, par le Dr. A. Dureau.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Melbourne Argus—Edinburgh Evening Courant—Scotsman—California Medical Gazette—Medical Press and Circular—London Figaro—Shield.

APPOINTMENTS FOR THE WEEK.

July 16. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women 9½ a.m.; Royal London Ophthalmic, 11 a.m.

18. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

19. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m. West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

22. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 9, 1870.

BIRTHS.

Births of Boys, 1057; Girls, 969; Total, 2026.
Average of 10 corresponding weeks, 1860-69, 1889·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	800	697	1497
Average of the ten years 1860-69	644·1	588·8	1232·9
Average corrected to increased population	...	...	1356
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	4	20	...	5	1	3	3	54
North ...	618210	4	11	28	...	2	4	7	2	58
Central ...	383321	..	10	13	1	2	...	3	...	20
East	571158	5	7	11	...	7	...	1	3	61
South	773175	3	9	32	2	8	4	7	3	65
Total	2803989	13	41	104	3	24	9	21	11	258

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·785 in.
Mean temperature	65·0
Highest point of thermometer	89·7
Lowest point of thermometer	47·1
Mean dew-point temperature	55·3
General direction of wind	S.W.
Whole amount of rain in the week	0·12

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 9, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending July 9.	Deaths Registered during the week ending July 9.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2026	1497	89·7	47·1	65·0	18·33	0·12	0·30
Portsmouth ...	122084	12·8	70	32	80·2	45·8	61·5	16·39	0·21	0·54
Norwich	81087	1·09	57	38	80·5	51·0	62·1	16·72	0·81	2·06
Bristol	171382	36·6	119	106	79·1	47·4	59·2	15·11	1·03	2·62
Wolverhampton ...	72990	21·5	44	20	83·3	49·1	60·8	16·00	1·15	2·92
Birmingham ...	369604	47·2	207	112	82·4	52·7	61·3	16·28	1·17	2·95
Leicester	97427	30·4	75	43	87·7	50·0	63·0	17·22	0·79	2·01
Nottingham ...	88888	44·5	50	40	84·6	50·4	61·3	16·28	0·96	2·44
Liverpool	517567	101·3	350	257	75·0	53·0	61·1	16·17	0·26	0·66
Manchester ...	374993	83·6	224	177	84·0	51·0	61·5	16·39	0·58	1·47
Salford	121580	23·5	119	64	82·4	50·0	60·4	15·78	0·55	1·40
Bradford	143197	21·7	99	87	76·8	50·2	62·6	17·00	0·28	0·71
Leeds	259527	12·0	224	114	81·0	50·0	61·1	16·17	0·56	1·42
Sheffield	247378	10·8	159	113	82·5	50·0	59·0	15·00	0·75	1·91
Hull	130869	36·7	84	4	82·0	47·0	59·4	15·22	0·20	0·51
Sunderland ...	94257	30·5	37	35	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	77	66	73·0	51·0	58·6	14·78	0·20	0·51
Edinburgh	178970	40·4	127	90	72·7	51·0	59·1	15·05	0·60	1·52
Glasgow	468189	92·5	355	226	74·0	46·0	58·0	14·44	1·67	4·24
Dublin (City, etc.*)	321540	33·0	131	114	78·9	38·5	60·7	15·94	0·16	0·40
Total of 20 Towns in United Kingd'm	7209603	33·8	4534	3274	89·7	38·5	60·8	16·00	0·63	1·60
Paris—Week ending July 9	1889842	242	...	1119	...	...	...	...	...	...
Vienna—Week ending July 2 ...	605200	167	...	369	...	...	60·6	15·88	...	...
Berlin—Week ending July 7 ...	702437	128	531	610	...	...	64·2	17·88	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·785 in. The highest barometrical reading was 29·97 in. on Thursday, and the lowest was 29·64 in. at the end of the week.

The general direction of the wind was S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON DEATH FROM CHLOROFORM.(a)

GENTLEMEN,—I purpose in this, the last lecture on death by chloroform, to consider the following subjects :—

1. The modes of death from this agent.
2. The cause of death.
3. The means to be employed in attempting resuscitation when life seems to have ceased under the inhalation of vapour of chloroform.

1. MODES OF DEATH.

There are four modes of death from chloroform. The first may be called death by *syncopal apnœa*. The death by this mode is very rapid, occurring within the minute after the commencement of inhalation. The action of the vapour in this mode of death is, as I have explained in a former lecture, by the immediate influence exerted by it on the peripheral nervous system. By this action respiration is for an interval suspended, there is accumulation of carbonic acid in the blood, irritation of the vagus, and arrest—from the irritation—of the action of the heart.

We can illustrate this mode of death with certainty in the inferior animal. We take a glass chamber and charge it freely with vapour of chloroform at a temperature of 75° ; at least 15 per cent. of the vapour should be present. Into the chamber we introduce any small warm-blooded animal, and in the matter of three or four seconds it ceases to breathe. There are present the signs of commencing apnœa—lividity, coldness, insensibility. These signs just appear and then the heart stops, and if nothing be done to restore life, death is complete. When we open the body after this form of death, we find the heart containing blood on both sides, but paralysed for the moment completely ; we find the lungs containing blood in the pulmonary circuit and yet not congested with blood; we find when we test the muscles with the electric current that they contract readily and that they preserve their power of contraction for a long time, half an hour at least, under stimulus, if they be not exhausted by the stimulus itself; lastly, and let this fact never be forgotten, the heart, although paralysed within the body, is not irrevocably dead: we expose it to air by opening the pericardium, and as the blood in the right auricle absorbs oxygen and brightens in colour, the auricle recommences to contract, the ventricle follows rhythmically, and in time all the motion of the organ is restored.

The human subject sinks, as we know, from this mode of death under chloroform, and we can understand now the kind of subject that is most likely to succumb in the manner described. It will be the young or feeble subject, or the irritable, nervous, shrinking subject: such a one as would be likely to faint under sudden shock or alarm; or it will be the vehement resisting subject—one who, excited by the first impression of the vapour, would grow violent under coercion or restraint while made to inhale the vapour. A remark by Dr. Sansom occurs to me here. He observes that persons who are in health and are about to be subjected to some minor operation are put under chloroform with more difficulty than are those who, by long illness and suffering, are resigned to their fate, and who, prepared to meet the worst, have, to some extent, lost the sense of fear. Few better observations of a practical kind were ever made than this, and it applies with singular force to the mode of death now under consideration.

I cannot, while treating of this rapid mode of death, avoid saying a word against the promotion of it by an error in administration of chloroform which may be called a moral error—an error most reprehensible, cruel, insane, and yet not uncommon. This is the error: to bring a patient just prior to the performance of an operation, when the anxiety which weakens the strongest man or woman is filling the mind—to bring the patient thus circumstanced, with all the senses open, into the presence of an assembly of Practitioners and students and commence without any preparation or soothing, quieting, expression, the administration of the narcotic vapour. It is not a wonder that some sick persons die under this ordeal; the wonder is that so many survive it. To bring a living intelligent human being to the borderland of life by any narcotic is not a fool's errand for mankind, but a solemn service, and I think in all cases of death from narcotic gases and vapours this point relative to administration is one on which a coroner might make due inquiry, with advantage to the Profession not less than to the community.(b)

The second mode of death may be called death from muscular excitability—*epileptiform syncope*. It occurs during the second stage of narcotism—the rigid stage, as it has been designated. In this stage the chloroform is acting as an excitant to the whole muscular system through the blood, which conveys it over the organism, and in this excitement the involuntary as well as the voluntary muscular fibres share. Efforts to vomit not unfrequently precede death when it occurs during this period of administration, and the death if it happen is instant, and by pure and simple syncope. If we could suddenly empty the whole arterial system of blood, a more perfect syncope could scarcely be induced, and in fact the emptying of the arterial system is what really takes place ; for if we open the body of an inferior animal immediately after the death, we find the left side of the heart with the arteries empty, and the lungs themselves entirely blanched and bloodless; bloodless as if they had been washed with water by injection. I have shown this condition, as you will remember, many times. When again we turn to the structure of the brain, we find it in the same blanched and bloodless state. All through the body, in short, there is evidence afforded, on the arterial side of the circulation, of intense arterial contraction. The venous side tells in another way the same story ; for the right side of the heart is engorged with blood, the veins are engorged, the sinuses are engorged, the arteries have poured their contents into the veins, and contracting firmly in their minute ramifications have shut up the blood in the veins, and produced complete arrest of motion throughout the circulation. Considering how commonly and how severely the second stage or degree of narcotism under chloroform is developed, it is a matter of wonder that death is not more frequent during this stage. Happily, if the vapour is administered steadily and freely, the stage of excitement is comparatively short, and, happily also, when the next or third degree of narcotism is reached, the danger of continued muscular rigidity is past. When death occurs in the second degree of narcotism from chloroform, the rigidity of muscle alternates with relaxation, the result being a convulsive effort resembling true epilepsy. The first death from chloroform, in the case of Hannah Greener, was of this nature.

Why in exceptional cases death should occur during the stage of muscular excitement, while so many persons pass through the ordeal of that stage unscathed, I cannot readily answer. The cause of death is excessive irritation of the sympathetic nervous system, and it is fair to assume that any previously deranged condition of that system would be a reason for the danger. Any pre-existing irritation of the stomach or of the intestinal surface would be a predisposing cause of danger, as would prolonged emotional excitement and hysteria. The fatal accident might happen, when the excitement is extreme, from indecision on the part of the administrator as to whether he should stop the administration altogether, or push it on to the production of the third degree. In the inferior animals, death during the stage of excitement is readily induced by mere prolongation of the second stage, and what is true in respect to the lower animals is, I think, equally true in respect to man.

The third mode of death from chloroform is one in which, from the slow and continued action of the narcotic, there is *paralysis of the heart*, with apparent paralysis of the muscular system generally. If we take a perfectly healthy animal, narcotise it carefully, and bring it into what was called by Snow the fourth stage, or the stage of complete muscular

(a) Delivered on Tuesday, April 5, 1870.

(b) An eminent American Physician lately here expressed to me a few days ago that nothing, during his Medical observations in this country, surprised and pained him so much as the error I have ventured, in the interests of all, so freely to condemn.

relaxation, we shall have led the animal up to the border of death; if we then carry our narcotism a little further, the heart and the respiration will cease together, but before the heart shall cease it will give us intimation it is about to stop by one important sign, it will give an *intermittent* stroke. See, here are two animals in the profound and all but fatal fourth degree of narcotic sleep. One animal is a pigeon, the other a rabbit. We remove the bird from the vapour, and observe how complete is the muscular relaxation; we listen to its heart and hear how distinctly that organ is proclaiming, by its intermittent pulsation, the imminent approach to the cessation of its labours. It is like a stopping watch, which gives a few ticks, then waits, then goes on again. But now that the vapour is no longer being inhaled, and that the oxidation is unimpeded, the recovery of the animal is certain. We will let the other animal remain in the vapour and soon it ceases, but almost imperceptibly ceases, to breathe and to circulate blood. We say it is dead, and so it is, but this I would point out, it is not equally dead throughout its body. Its voluntary muscles respond to galvanism, the respiratory muscles respond, but when we expose the heart and subject it to the galvanic stimulus it is absolutely dead.

This mode of death from chloroform would very often happen if in every operation it were necessary to carry the insensibility to the fourth degree. Fortunately this is not the case, for under chloroform the consciousness fails before the failure of the muscular power, and when there is unconsciousness we can in most cases proceed to operation at once; thus we rarely run the risk of the extreme degree of narcotism, or if we reach it we withdraw the vapour; and, the subject before us being healthy, we secure the recovery, in the same way as we have secured it in the bird which has been narcotised to-day.

The fourth mode of death is a compound death; there are in it two factors, *depression from chloroform, and Surgical shock*. The combination may be in two or three ways. In a few instances of death hæmorrhage has brought to a fatal degree a depression which had commenced during and from the administration of chloroform. The death here is by syncope, and is often sudden. In other cases the patient has not been fully narcotised, and in a half unconscious state feeling the pain of the operation has become faint and died from syncope. In this case again the death is sudden. Dr. Marshall, of Mortlake, has particularly directed my attention to this mode of death, and has dwelt, I think, with force and truth on the errors sometimes committed, first in supposing, in the case of small operations, that it is only necessary to administer a little narcotic vapour, and, secondly, in proceeding to operate while the patient is excited and not insensible. There have been several deaths at this juncture of the first step of an operation during the first degree of narcotism. Finally, under very deep narcotism, carried near to or into the fourth degree of insensibility, death may take place from severity of shock, incident to operative procedure. I have noticed always in administering an anæsthetic to deep anæsthesia during the performance of the operation of ovariotomy that when the operator first puts his hand into the peritoneum, or when he uses the sponge to clear out the abdominal cavity, there is an alteration in the beat of the heart, a quickness of beat with feebleness, and even with intermittency. I remember also a case where in order to break up firm adhesions in the knee-joint, I administered chloroform to a lady to the degree of complete muscular prostration, while Mr. Wm. Adams made sharp and forcible bending of the joint. With each act of the operator in this case, the pulse stopped for the moment as if it had been mechanically arrested, and then after a pause recommenced its beat. It was necessary on three separate occasions to perform the operation thus named, and on each occasion the phenomenon described was equally well marked.

The case of death under chloroform, which recently occurred in Scotland, when Sir James Simpson administered the vapour, was, I conceive, an instance in which the fatal termination was due to the combination of narcotism and surgical shock.

Cause of Death.

When we have clearly before us the modes of death from chloroform, we are led the more readily to see the immediate cause of death, and in this survey we strengthen our view if we combine with mode of death the phenomena which naturally accompany ordinary narcotism under chloroform.

In the first stage of administration, the effect of the vapour is upon the peripheral nervous surface and the cerebral centres. In both there is excitation, and very early the cerebral centres lose their natural condition, becoming suspended in function. Following immediately upon this, the cord, the sympathetic system, and the true nervous system of the heart, become excited. Thirdly, the nervous excitation generally ceases, and there follows calmness, or even depression of action, and if the administration be continued the medulla fails, the sympathetic fails, the cardiac nervous centres fail. This, then, is the natural order of death of each part—Brain, cord, sympathetic centres, cardiac centres.

It does not appear that the act of producing cerebral unconsciousness is ever a cause of danger to life, and, except in cases where the vapour is too irritating, we have little evidence to show that during the administration of chloroform there is any primary risk from injury done to the centres of the nervous system that govern respiration. The danger really commences when the vagus, or the organic nervous centres, or both, become implicated, for then the contractile elements of the vascular system are at once modified in function. Wonderful light has been thrown on cardiac action during the last few years, and no subject does that light more illuminate than this we have now specially in hand. In his excellent paper, to which I referred at the last lecture, Dr. Rutherford sustains the modern theory, "that the contractile elements of the entire vascular system are presided over by two kinds of nerves, one motor, the other inhibitory," the motor bringing about "contraction," the inhibitory throwing "the motor nerves and contractile elements into a state of rest." The term "inhibitory" is, I fear, unfortunate as conveying the idea of an active process, which is not such, but is a mere passiveness. I will not at this moment, however, quarrel with a term, since it is more important to treat of the theory in relation to the action of chloroform, and the theory tells us simply that if the vagus be subjected to irritation the motion of the heart is arrested quickly, but that after a time it may recommence to beat even when the excitation is continued; that paralysis or division of the vagus increases for a time the speed of the heart; that the two cardiac nervous centres with branches from the sympathetic are the real motor nerves of the heart, and that between the two sets of nerves, the inferior cardiac branches of the vagi and the motor centres, there is a balance of action.

In all the modes of death from chloroform we see a fatal disturbance of this balance. In the first mode—by syncopal apnœa—we see the direct action (inhibitory it is called) of the pneumogastric upon the heart; in the second mode—by epileptiform syncope—we see the direct effect of excitation of the centres which supply the motor or contractile elements of the vascular system; in the third mode—by failure of muscular motion—we see the effect of the poisonous agent upon the motor system carried to paralysis; and in the fourth, when surgical shock combines with depression from chloroform, we see direct paralysing action both on the sympathetic and pneumogastric.

After death by chloroform it is the common practice to report on the condition of the heart of the patient. Thus sometimes the heart is said to have undergone fatty degeneration, at other times to be thin, and again to be quite healthy, so that from the many and different reports in different fatal cases respecting the condition of the heart no rule can be deduced which the morbid anatomist can accept as explanatory of death, or on which, in other cases, the diagnostician can rely as indicating danger of death. In this there is nothing remarkable. Let us bear in our minds the truth that chloroform, when it kills, kills not necessarily by its action on the muscular structure of the heart, but by its influence on the nervous mechanism of the heart, and then the actual condition of the muscular structure becomes secondary in estimation.

In conclusion, I infer that in every case of death from chloroform the cause of death is excitation either of the motor or of the controlling nervous mechanism of the heart. I conceive that any primary organic changes of structure leading to death are situated in that mechanism, and must be looked for there; and I think there is fair ground to assume that in some cases there may be death where there is no actual disease of structure, but simply so extreme a natural delicacy of balance between the nervous functions that the excitation produced by the chloroform is sufficient to arrest motion and to destroy life.

On Resuscitation when Life seems to have ceased under Chloroform.

When, unhappily, death takes place in the human subject from the inhalation of chloroform, there is usually a rush of attempts to call back the lost life. One observer would flip the motionless body with a towel, or briskly rub the limbs; another would

try galvanism; a third would commence artificial respiration; a fourth would combine every method. In a few cases there have been recoveries from seeming death during the application of some particular plan; thereupon, that plan has been vaunted as *the* plan, it has been tried again, and has not succeeded, and then it is urged that, in the case where it seemed to succeed, it was merely coincident with natural recovery.

On the whole, nothing whatever has been learned from the human subject as to the best procedure after apparent death from chloroform, nor is it likely that anything can be learnt in this manner. In the first place, fortunately no individual man can attain a sufficient experience from the human subject for systematic guidance; secondly, a research made for the mere sake of research on the human subject accidentally destroyed by chloroform would be unjustifiable; and thirdly, the excitement and anxiety of attendants on those who die is so intense, that no rigorous observation or criticism of treatment can be carried out. We have, therefore, to learn all that is to be learned from the inferior animal, and in this way we can learn with hope for the future, and with soundness of observation at the time; we can repeat observation on observation; we can prove what is injurious in treatment; we can note down what is useful, we can confirm what is real. In this research, moreover, while the object we have in view is one of the greatest and most humane that can occupy the human intellect, it can be carried out without inflicting on the inferior animal world any trace of suffering. The animals simply sleep as we do when we inhale the narcotic vapour.

This, therefore, has been the inquiry pursued here in respect to methods of recovering from death by chloroform, and I may say at once that much has been learned that can be demonstrated as useful.

There are two methods deserving consideration in respect to resuscitation—one may be called the natural, the other the antidotal method. By the first we aim to sustain the organic functions so effectively that the poisonous vapour may be lifted out of the system, and the organic functions be therewith restored. By the second we aim to neutralise the poison, or to counteract its effect, by the employment of some opposing agent or principle.

In pursuit of the natural method I have studied many plans—artificial respiration, electrical excitation, artificial circulation, transfusion. For full particulars of these researches I must refer you to my papers in the *Proceedings of the Royal Society* and in the *Medico-Chirurgical Review* for July, 1862. For the present moment I confine myself to two of these methods alone—artificial respiration and electrical excitation. These are the two methods best known and most commonly used; and if I define clearly their values I shall not only leave some practical facts on the mind, but shall lead up to future advances towards more accurate knowledge and experience.

On the human subject artificial respiration is followed out simply in order to imitate natural respiration; while galvanism is followed, in a less definite manner, by some to excite respiration, by others to excite the heart, occasionally for neither of these reasons, or for both. In my researches I have used artificial respiration for the same simple purpose as it is used on the human subject, striving only to make it perfect; while I have used galvanism for three distinct purposes: First, to excite and sustain respiration; second, to excite and sustain the heart and respiration; third, to excite the heart while the respiratory process was sustained by artificial respiration.

You will ask, immediately:—Can anything be done? I answer immediately:—Yes. I answer that in some cases where death from chloroform appears to be perfect—where, if nothing were done, the animal would be dead—life can be restored; can be restored with certainty in a given number of cases out of a given number of deaths—in one case out of three, I may venture to say without fear of saying more than is true. We find at the same time that the result is not the same after each mode of death. It is most easy after the first mode, less easy after the second, and rarely possible after the third. I have not tried it after the fourth, but I should infer that it would be nearly the same as after the first mode. What is more—and the fact is as singular as it is obvious—the restoration of life is much more easy during cold and cool than it is during hot weather. When the temperature of the day is between 70° and 80° Fahr. the experiment usually fails. Lastly, the experiment usually fails if the chloroform be administered for several minutes before the narcotism passes into death.

The plan for restoration which, up to this time, succeeds, and the only one which succeeds, is that of careful, delicate, but at the same time steady artificial respiration by the double acting bellows, which I have already described.(c) So soon as respiration and the other evidences of life have ceased, we insert the exit tube of the bellows into the nostril and empty the lung by a stroke of the bellows on the emptying side; then we gently inflate, and next empty and fill in alternate stroke. Let us proceed to demonstration. We put a large well nourished rabbit gently to sleep with vapour of chloroform, we carry on the administration quickly, and, as you see, at the end of four minutes the animal has ceased to breathe. We may let it lie in this way a full minute, but we must not move it or handle it. The least pressure with the hand on its thorax or abdomen, or the lifting it up quickly, would be fatal to success. Now we introduce the nostril tubes of the bellows and first exhaust the chest, then fill, and in the end exhaust and fill steadily some twenty to twenty-five times a minute. We must wait patiently for three or four minutes, keeping up the respiration before we can expect a result; and while we wait let me narrate this peculiarly interesting circumstance, that in proportion to the time allowed to elapse between the death and the commencement of the restorative process, so must time be allowed for continuing the artificial respiration. If the animal die at once and the artificial respiration be commenced at once, one or two strokes of the bellows are often sufficient to restore independent life; but when, as in the present case, the time is long before respiration is artificially set up, then some moments must be allowed for recovery. Why is this? It is because the respiratory muscles and their nervous centres must be recharged with blood before they can take on their action again, a slow process when the motion of the heart is all but extinguished.

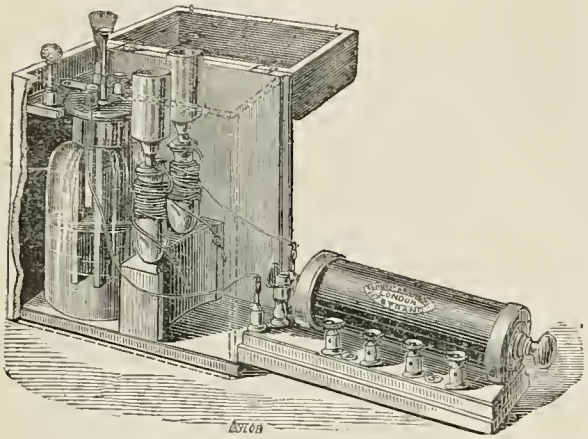
We persevere, and now observe we are about to be rewarded with success, if you watch closely you will perceive a tremulous muscular movement in the flank of the animal; it is followed by an inspiratory effect. The muscles are now recharged with blood, and the organic nervous centres are recharged, and this effected, I know, by experience, I have done enough. I remove the little tube from the nostril and let the recovery be completed by natural respiration. The animal will in time awake as if nothing had happened to it.(d) Was the animal in this case dead? It was practically, it was not actually. The brain was dead, the cord was dead, the voluntary muscles were under no stimulus; the semi-voluntary muscles were under no stimulus; but there was one organ, which though we could not discern its motion was in feeble action; and that organ was the heart. By our gentle manipulation we restored the heart; it recharged itself, it slowly recharged the other muscles and the nervous centres with blood, and at last there was natural action. The experiment is so easy to perform, so uncomplicated, it would appear as if it ought always to succeed; and it would always succeed if we knew a little more. But at present we only know certain causes of failure, of which there are several. Sometimes we fail because the system is too fully charged with chloroform; sometimes because the column of blood from the right to the left side of the heart is broken; sometimes because the pulmonary vessels are contracted; sometimes because there is coalescence of the blood corpuscles from stasis and plugging of the minute ramifications of the pulmonary artery; sometimes because the blood coagulates, and this especially if the temperature of the air is high; sometimes because, again under high temperature, the muscles soon become rigid; and sometimes, it may be, because the nervous centres suffer molecular change so that they fail to recharge and resume function. These seem many difficulties, but really they are closely allied, and one day we shall see a mode of overcoming them altogether. Then the results will be much more striking than they even now are.

So much for artificial respiration; next as to electrical action. I have employed electricity, as before said, with three objects in view, and I have used it in various ways: as frictional electricity, as continuous current, as an intermittent current. On the whole, I find the best apparatus to be this convenient little persistent battery made by Schmidt and Robinson, of the Strand. If anything could be effected by the excitation of

(c) The double acting bellows were described in the lecture on artificial respiration, published in the last volume of the *Medical Times and Gazette*. The bellows are made by Messrs. Krohne and Seseman, of 8, Duke-street, Manchester-square, whom I have much pleasure in thanking for the intelligent pains they have taken in carrying out my design. The bellows are inexpensive, and are useful for other purposes than artificial respiration.

(d) The animal made a perfect recovery in this case. It lay without evidence of life for the full period of six minutes and a half, the longest period I have as yet known to be followed by recovery.

muscles from electrical action, we have in the instrument before us all we could reasonably desire.



Let us again proceed to fact. We have narcotised another rabbit rapidly until it is practically dead. We could restore the animal if we pursued the same method as in last experiment: we will use the battery instead. We will use it first with the object of restarting muscular motion in the respiratory muscles. For this object some, in the human subject, put a needle from one pole into the tract of the phrenic nerve, and then apply the opposite pole to or over the diaphragm. Others put the needle under or subcutaneously upon the larynx—in plain, the position is of little moment if the second pole be in contact directly or indirectly with the diaphragm. I will bring one pole by a needle in contact with the larynx, and the other in contact with the diaphragm. And now when I make and break contact you see the respiratory act is perfect; the air enters the lungs readily, and I bring back inspiration and expiration as faithfully as if I were filling and emptying the with the bellows. I continue this action, but note what soon occurs: the muscles begin to respond more feebly, and quickly cease to respond; I gently increase the current and by this renewed action is seen again; at last the organs cease to act under any current; but if I change the current and pass it through the limbs of the animal the muscles of the limbs respond readily enough. Why not then the muscles of respiration? Because we have exhausted them by the electrical action: when I was sustaining respiration by the bellows my hand supplied for the time the respiratory power of the animal. I gave the force, and the muscles of the animal rested and restarted. When I used the electrical stimulus I took out of the muscles what remaining force was there—the primary force required for recovery—and under a semblance of restoring life clenched death.

But let us go one step further; this animal could not be restored now by any known method: we will then open the thorax and look at the heart. At first sight the organ is seen at perfect rest, but in contact with the air it recommences to pulsate, and in a minute or so the auricle and ventricle on both sides are in rhythmical action. We will repeat the electrical current letting it now pass through the heart at the lowest power. Observe what occurs: at once the organ flags and stops in ventricular systole. We have exhausted the heart as we previously exhausted the respiratory muscles.

I thought once it might be well to combine electrical excitation of the heart with artificial respiration by the hand bellows. I had no success like that which follows simple artificial respiration, and after these experiences I feel it to be unreasonable to recommend galvanic action as a means of resuscitation. Galvanism is a two-edged sword. It might, by accident I may say, in some cases, restart respiration, but it would in this respect be inferior in principle to artificial respiration, and in the majority of cases it would more effectively promote death than restore life, even when used with the specific object of exciting the respiratory muscles into natural play, or of exciting the heart. When used as it commonly is used merely to excite prolonged contraction of muscles, it is not aimless merely, but positively mischievous.

Still the phenomena excited by galvanic action, though as yet deceptive, are not to be ignored; one day we may see how to use electrical excitation with advantage and on a known principle: but that day has not arrived.

Antidotal measures.—It has been hoped to neutralise the physiological action of chloroform by injection of antidotes into the veins. I tried the injection of ammonia into the veins as far back as the year 1854, and although the injection excited the heart it did not offer any material advantage. Liebreich has recently referred to strychnine as antidotal to chloroform. I had already tried that also without obtaining any indication of good result. On the whole the antidotal method is hardly applicable to chloroform. If a man or an animal is not practically dead from chloroform, if he still breathes, and circulates however feebly, he will recover best by being allowed to recover spontaneously; if he be practically dead the remedy is not an antidote, but a method by which the natural process of life may be correctly imitated in the motionless organism—a method carried on by force supplied from without until the inner force is revivified.

The final question before us, the summary, is this: When there is a death from chloroform what shall be done? I answer that at present we know of one process which may succeed, and that if it do not succeed we know of none other that can take its place. That process is prompt artificial respiration. But artificial respiration must be done properly to be effective; it must be done with the body at perfect rest: it must be done as we have done it here in our experiments by a double-acting bellows or pump which shall exhaust and fill the chest with air. It must be carried out steadily and gently: it must be withdrawn when there is any natural effort at respiration; it must be continued until a puncture of a vein shows that there is coagulation of the blood. Above all, it must be absolutely trusted until some new and definite advance is made the soundness of which is demonstrable by direct experiment. If to every Hospital operating table and to every private operating chair a double-acting pump or a bellows were permanently attached and always ready for use, and if in emergency it were at once brought into action methodically and with fixed purpose, under the surety that if it failed all means will fail; if the body be kept meanwhile in entire repose, so that no violence nor shock be allowed to check the little remaining power of the heart, then I believe, from experimental data, that at least one in every three or four of the cases now ending fatally under chloroform would be saved.

And still there would remain work enough to be done; work to improve further the process of resuscitation as a general process; work to find an agent for anæsthesia which shall destroy sensibility, but shall not possibly endanger life.

LECTURES ON OPHTHALMIC SUBJECTS.

SELECTIONS FROM LECTURES GIVEN WEEKLY TO THE STUDENTS IN ATTENDANCE AT THE OUTDOOR OPHTHALMIC PRACTICE AT ST. MARY'S HOSPITAL.

By HAYNES WALTON,

Surgeon to the Hospital, and Surgeon in charge of the Ophthalmic Department of the same; late Surgeon to the Central London Ophthalmic Hospital.

CATARACT.

(*Continued from Vol. I.* 1870, *page* 656.)

The removal of cataract: General considerations. There are many points here that demand careful consideration.

It is a cardinal point in ophthalmic Surgery not to operate on an eye for the removal of cataract, so long as it may be rendered available for ordinary purposes, by optical appliances, or otherwise, except at the request of a patient, and after he is made aware of all the circumstances of the case.

An operation ought never to be undertaken in anticipation of blindness, because the cataract may not increase, and the hard variety is often very slow in maturity. Years may pass away with but little progress. The several conditions of lenticular cataract require different operations, and the choice of any one should rest solely on the circumstances of the disease.

The hard cataract should, as a rule, be extracted, that is, removed from the eye, or displaced, by being pressed into the vitreous humour. So long, therefore, as the opaque lens is yet hard, and not reduced in density, by the secondary changes of atrophy, it would be imprudent to attempt to make it disappear by absorption, because such action would be very slow, and during the tedious process, the eye is particularly liable to inflame, and so be thereby damaged. Besides any particles of the cataract which might fall into the anterior chamber, or the

posterior, would most likely set up an attack of inflammation and endanger the eye. The failing nutrition of the eye of an old person renders it most unfitted to bear irritation from such a source, for while it causes high susceptibility, it destroys power of resistance.

Some years ago I tried with the utmost care, to effect absorption in patients beyond the age to which this method is generally restricted by most Surgeons, and although I did get some good effects, the general result fell far below that from extraction. Now, I always extract when there is any visible amber change in the cataract, and also when the lens has a whitish surface, the result of the secondary change, if the age of the patient renders it likely that there is an amber-coloured nucleus, and hard.

Soft cataract should, as a rule, be allowed to remain in place, and be lacerated, or so broken, as to admit of the process of absorption, or solution, to which its softer texture readily yields; for with this simple operation, the natural powers are quite capable of causing its complete dissipation.

Capsular cataract must be removed from the eye, or be cut, or torn through, to enable it to contract.

Preparation of a patient. Operations implicating the globe of the eye demand for their success, so far as the body of the individual is concerned, that state of health in which a wound can be inflicted on a delicate and sensitive organ, with the greatest impunity. In the operation for extraction, unless union of the cornea be quickly effected by adhesion, success must always be more or less imperfect, and destruction of the organ will frequently ensue.

Although we have no means by which to test this bodily state, because there may be power enough where its pressure is doubted, and it may be lacking in those who are apparently in good health, yet certain bodily conditions can be pronounced, as being in the main unfavourable. Those persons who have long undergone want of sufficient food give the worst results. My success with Hospital patients never equals that in private life.

A debilitated constitution requires to be improved to the highest standard that the idiosyncrasy of the person will allow.

Plethora should always be avoided. An accustomed eye soon detects the habit of body that is popularly called "rude health," and a person exhibiting it in a marked degree should be reduced by regulation of diet, exercise, and gentle purgation if necessary, till any excess disappears, and the circulation is rendered more natural.

So long as we are unable to say where health ends, and disease begins, and to make a distinction between the failing of the living machine from decay and actual disease, a patient should be left alone, except he exhibit some decided abnormal constitutional symptoms, respecting which we can be tolerably sure about the beneficial effect of treatment. I do nothing for the great majority of my patients.

Dr. Jacob, in his *brochure* on the operation for cataract with the fine needle, makes excellent remarks, which are not less practical than original. He says the value of preparatory and after-treatment, as part of the Surgeon's care in cataract operations, has been fully appreciated, and, in practice, amply made available; but the value of a respectful consideration of all the functions of the animal economy upon which health depends has not been so well understood. It is assumed, he continues, that a patient should be prepared for an operation by taking physic and abstaining from food; yet a rational man, acquainted with the consecutive operation of each apparatus provided for the growth, repair, and preservation of the living being, may well doubt the correctness of such a view. The universal faith reposed in the practice of giving and taking physic has led Practitioners not only to place too much reliance on that resource, but to resort to it sometimes to the injury of the patient. In preparing a patient for an operation, he does not act on the belief that empty bowels are essential to health, or that what are called *fæces* should not be found in the intestinal canal; on the contrary, he proceeds on a conviction totally different. If a patient be in good health, notwithstanding an habitual retention of the contents of the bowels beyond the prescribed periods, he does not risk an interruption of health by disturbing the natural functions of the stomach and bowels, and therefore refrains from giving physic. But if not in good health, he endeavours to bring him into that condition by every means, and resolutely resists every attempt to induce him to operate until he has accomplished that object. Above all things he thinks that the state of the digestive organs should be carefully studied, and when found defective, if possible repaired. He believes that nothing seems to require more attention than the condition of the tongue as indicative of the state of the stomach and bowels. If it be coated with discoloured adhesive mucus, the functions of assimilation and nutrition are probably imperfectly performed, and a resulting tendency to destructive inflammation from local injury is engendered. He writes in conclusion, it is usual in preparing for this and other operations to make great alterations in diet, substituting liquid for solid, and vegetable for animal aliments. This, however, must be done with caution, leading as it inevitably does to disturbance of the digestive function and interruption of the assimilating and nutritive processes, if suddenly or exclusively adopted. Without digestible nutritious food, good chyle and blood cannot be produced, and without good blood, local injuries are liable to suffer from destructive inflammation. I endorse all this.

The whitish and rather coated tongue of the aged should not be mistaken for a symptom of unhealthiness. In them this organ is not so ready an index of the state of health as in early years; attention should therefore be paid to the urine, the deposition of uric acid, or of the urate of ammonia, being a sure indication of dyspepsia, or excess of nitrogenised food, or of fever; and that of phosphate of lime or the triple phosphate, of the opposite states of prostration and nervous depression. Yet an operation should not be undertaken with a decidedly loaded tongue. The abdominal evacuation should, with the least apparent necessity, be examined for evidence of the hepatic state, and for information respecting the digestion of food, particularly in those past the meridian of life, because it is then that these functions are mostly at fault, and all kinds of operations less successful. In the majority of persons far advanced in years, who have passed through operations under my hands, it has been necessary to increase, or, if I may so call it, force the circulation, by tonics and stimulants. Towards the limit of the natural term of life, we should not, without ample necessity, cut off the accustomed amount of daily nourishment or the usual stimuli.

My immediate preparation of a patient is never more than the administration of some mild laxative the day before operating, solely that the necessary quiet after the operation may not be disturbed for a day or two by the natural action of the bowels, and any likelihood of straining at stool may be avoided.

Some general conditions contraindicate operating. The presence of active specific inflammation, as the strumous, gouty, syphilitic, or rheumatic, in any part of the body, would contraindicate an operation. So also may be said of the time of pregnancy. Some Surgeons avoid the period of menstruation.

Organic disease in the chest is not necessarily an impediment to operating. I saw extraction done on the eye of a female, 57 years old, who had valvular disease of the heart, ascites, and anasarca. The operation was quite successful, and the patient returned home on the eleventh day after its performance. Her heart had been diseased for five years. I have operated several times respectively when the heart has been diseased, and in the early stage of phthisis.

Kidney disease renders a person most unfavourable for an operation.

Atheromatous arteries interfere with primary union of the cornea in extraction.

While unquestionably the result of a operation of any kind will much turn on the state of the patient's health, that for solution may be undertaken and success secured, when that for extraction is scarcely admissible, and unfortunately the latter is most required when the complications are most likely to exist, namely, in old age. Chronic bronchitis, and asthma, interfere, I believe, more from their general effect than any mechanical disturbance to the eye from the cough, although if this be violent, it will prevent the healing in the right way.

As we cannot select our patients or reject according to the absence of complications, or the presence of them, we should never operate under disadvantageous circumstances, without making the drawbacks known to the patient or his friends.

Advanced age is not in itself an objection to operating if nothing else forbid. The best attainable results have followed extraction after 90, in the hands of Sir W. Lawrence. The late Mr. Scott did the same operation on a female between 90 and 100. I have several times performed it to my complete satisfaction, after the eightieth year, and once as late as the eighty-sixth. Two cases of success are recorded after the patients have turned 100 years each. Of course after the seventieth year a person is less favourable for the ordeal of extraction, from a variety of circumstances and from contingencies inseparable from long life.

Remarks on operating in early life will be made when treating of congenital cataract.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL ILLUSTRATIONS
OF THE
ANALOGY BETWEEN THE PROCESSES OF HEALTH AND OF DISEASE.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

THE inquiry which is connected with the subject of my present paper has much interest in relation not only to disease, but also to the processes of health; any light which it may throw upon morbid action will also be reflected upon the ordinary phenomena of normal nutrition. Disease is "nothing which the mind can grasp in the form of a distinct entity added to the human frame, but rather a deranged condition of the animal machinery;" hence it is of importance to compare the phenomena of health with those of disease, in order to learn wherein consists the derangement of the machinery of healthy nutrition, and what is the ultimate condition in which such derangement originates.

Now, upon these two branches of the subject our information is not always equally precise, and we must guard ourselves against being led by the knowledge we may possess upon the one to overlook our ignorance of the other. The class of epilepsies from which I shall take the illustrations I am about to adduce afford a very pertinent exemplification of the justice of this statement. Our knowledge respecting the action of the nerves in regulating the capacity of the minute arteries has opened a wide field of investigation, in which observations upon health and disease have mutually assisted each other; but in applying this information we have still to remember that in the phenomena of vascular action we are dealing only with secondary operations, and do not come down upon the ultimate changes upon which the specialities of vascular action depend. Thus in epilepsy we can explain the various phenomena which characterise the ordinary fit, by variations in the cerebral circulation, but in assigning such an explanation we by no means give an answer to the question, what are the ultimate changes in the central organs which are concerned in causing the fit? we only push the inquiry one step backward from the brain at large to that portion of the nervous centres in which the vascular nerves originate; the question still remains one as to the condition of nerve-tissue. It is on this account that the term epilepsy is so indefinite in its application; that it only indicates a particular state of nervous matter brought about by different kinds of lesion, with the nature of which we are but imperfectly acquainted. Such is the direction in which our inquiries have to look in order to give precision to our thought upon this class of maladies.

In this particular, however, our position in regard to morbid action is closely paralleled with that which we hold with reference to the processes of health, and here also the example I have just adduced finds a striking analogy with those normal processes which I shall have to adduce for the purposes of comparison. In the essays on sleep and its allied states to which I am about to refer, the authors, whilst satisfactorily alleging various states of the cerebral circulation in explanation of the phenomena they describe, yet find it necessary to extend their inquiry to that condition of the nervous centres in which such changes of vascular action take their rise.

One practical result of the greatest moment is derivable from this view of the subject: it exalts the necessity of keeping constantly in view the influence exerted upon the tissue of an organ by the function it performs, and of regulating such function, as the essential condition for preserving health. In no class of organs is this principle of greater importance than in the case of the central organs of the nervous system; perhaps in none is it less appreciated by the vulgar. It is too much imagined that a healthy state of the brain may be secured by regulating its physical nourishment. It is less generally recognised, at least so far as practice is concerned, that the proper regulation of its function is an agency of still greater power, though more difficult of attainment.

The illustrations I am about to adduce are derived from epileptic disease, and the condition of health with which I bring them into comparison is that of sleep in its various manifestations. In epilepsy and in sleep alike the most satisfactory explanation of the mechanism by which the phenomena are immediately produced is derived from variations in the state of the cerebral circulation of the minute arteries; and the parallelism which may be shown to exist between the healthy function of sleep and the abnormal state in epilepsy confirms the hypothesis which has been formed respecting each.

According to the valuable observations made by Mr. Durham, Dr. Hammond, and others, the condition essential for sleep consists in a diminished circulation of blood through the brain, indicated by the establishment of the "circulation of nutrition," as opposed to the "circulation of function," to quote the words of the first-mentioned author. In sleep, when perfect, the brain is placed in a condition best suited to its renovation after active exertion, and such a condition must enter into every idea of sleep. Hence sleep involves a delicate adjustment between the extremes of anæmia, on the one hand, which would produce one form of coma and would prevent nutritive restoration, and on the other of active circulation, which keeps the organ in a state of waking activity. In epilepsy the first stage of the fit is believed to consist in closure of the small arteries of the brain. Now, I have lately recorded in this journal a case of chorea which presented also attacks of an epileptic nature, wherein the patient passed from sleep into a state of perfect insensibility, from which the most violent measures could hardly arouse her, yet which yielded to the inhalation of chloroform. It is further of much interest in relation to the phenomenon of dreaming, that whilst entirely unconscious to external events, she sang, talked, and even recited poetry.

But a state of troublesome wakefulness or else of disturbed and imperfect sleep is a much more common attendant upon epilepsy. More than half of the patients from whom I have made inquiry upon this subject have admitted the presence of this symptom, and many have referred to a marked change having taken place in their sleep coincidently with or subsequent to the establishment of their fits. In some cases the alteration in question is most strongly insisted upon, and indicates a transition from comparatively tranquil sleep to a state of great disturbance.

There are some instances in which the connexion between epilepsy and bad sleep is still more direct, the patient alleging the coincidence of disturbed sleep with the occurrence of particular fits. Some have spoken of several sleepless nights as habitually following a bout of fits, and in one instance the sufferer even employed this wakefulness as a kind of warning.

It is well known that continued mental activity is the great opposer of sleep, and there is no form of mental activity more powerful in this respect than emotional excitement. Now the observers whom I have quoted, state that in active conditions of the mind, the circulation through the brain is quickened and the supply of blood is increased; this circumstance directs our attention to the unstable condition of certain parts of the nerve centres in epilepsy, and especially of the centres which govern the nerves supplying the cerebral vessels, as not unlikely to be concerned in producing the irregularity we note in the function of sleep. The instability may manifest itself, not only by causing contraction of the arteries, as in the fit itself, but also by permitting their dilatation at unseasonable periods, as actually occurs in the cases of vascular turgescence to which I shall have to refer presently.

Dreams, says Mr. Durham, "are associated with those states of cerebral circulation, which have been mentioned as intermediate between the states which respectively characterise perfect repose and perfect activity or wakefulness of the brain," and a tendency to dreaming is also very prominent in the disturbed sleep I have been describing. But the dreams to which epileptics are liable, possess an interest of a different character, related to a peculiar form of delirium which frequently mingles with the other phenomena of epilepsy, characterised by suddenness of occurrence, temporary duration, and the remarkably shifting and impulsive nature of its manifestations. The analogy which subsists between delirium and dreaming, has naturally attracted the attention of all who have written upon the subject. Now in epilepsy the account I have received respecting some patients as to what has occurred in their dreams, offers a very striking resemblance to the description given of the milder form of delirium from which others have suffered. The patients talk, "moither," shout, cry, "ramble" in their sleep. They wake in terror with eyes glistening, heart palpitating, a wild expression of face, and in a profuse perspiration. Occasionally they see spectres. In some cases the acts of the dreamer are of a more special character. A boy always seemed in trouble; he was constantly trying to save from drowning his mother and his

younger brother, and always selected these two members of his family as the subject of his dreams. His mother had for a long time been obliged to sit by him twice or thrice a week, and sometimes for several nights in succession. A child awoke screaming, threw up the window and leapt through; she looked greatly terrified, and "her screams were fearful." A girl started up in bed declaring she saw men getting in at the window, her eyes being widely open, and she remained in this condition for two or three hours. A woman dreamt that her child was not her own, and in her sleep went downstairs, hoping to find some one to take charge of it; she then returned to her own room, thinking how foolish it was to keep the child; she opened the window, and was "considering" about throwing it out when, happily, some one entered the room.

Somewhat analogous to the dreaming state was the waking condition described to me by a lady, the subject of epilepsy and of epileptic delirium. She had "an idea entering her mind," but could give no more definite description of the state. The idea became more vivid before a fit, and was always accompanied by a sense of dread. Subsequently "the idea" was replaced by a tendency to trace tunes in her mind, opera tunes, chants, etc. The same tune would be present sometimes for a day or two. "Oh, if I could but change it!" she exclaimed.

I should, however, state in passing that I do not find any constant connexion between tendency to disturbed sleep and to delirium in the same patient.

I may mention here one point of resemblance between many dreams and epileptic delirium; that in the latter the patient generally has no recollection of what has taken place during the period of intellectual derangement. And one other subject remains in illustrating the analogy between the delirium of epilepsy and certain states of mind which belong to the normal condition; I refer to the extreme irritability of temper which epilepsy induces, and which sometimes coincides with a tendency to delirium. The description occasionally given of the violent and causeless passion into which the patient is thrown on the most trifling provocation cannot be distinguished from that of an attack of delirium; he is for the moment dangerous to those around, and even commits serious mischief. In one patient whom I had the opportunity of watching through several years, the transition from mere petulance after a fit to evident delirium was very interesting. At first he was quarrelsome, then strange "and wandering," and finally he fell into violent delirium.

One of the most interesting phenomena of sleep is somnambulism, and epilepsy occasionally presents a very close resemblance to that singular condition. Somnambulism "is a dream put into action," and verifies the correctness of Cicero's remark, as quoted by Dr. Holland, that if it had been so ordered by Nature that we should actually do in sleep all we dream, every man would have to be bound down before going to bed. In ordinary cases of somnambulism the actions are directed by some dominant idea possessing the mind, though removed from the influence of the will, and not connected with the ordinary waking condition by the link of memory. The individual, to quote Dr. Richardson's words, "pursues an act of consciousness of which he is not self-conscious, he presents to us, *i.e.*, a mere objective consciousness."

Now, somnambulism may be produced artificially. Dr. Richardson has recorded some interesting observations in the Reports of the British Association, 1865, p. 274, showing that a state analogous to somnambulism sometimes follows the inhalation of amylene. A patient was entirely senseless, and in this condition underwent a severe surgical operation; yet "she talked with considerable correctness on the topics of the day, seizing objects with precision." He experienced proof that he had produced the same condition in his own person, though quite unconscious of his acts; and he quotes a like instance witnessed by Dr. Snow, in which a child played with a ball, throwing it into the air, catching it with precision, talking and laughing all the time, yet to all appearance perfectly unconscious.

Certain phenomena prove that varying conditions of different parts of the brain, as regards the state of activity, may be consistent with the continuance of sleep, though whether with what is understood by the perfect form of that condition has been differently interpreted; it seems certain that some portions of the organs may be asleep whilst others are, at least partially, awake.

Now, in particular forms of the epileptic fit we may witness a very interesting series, variously approaching somnambulism, and illustrating different modifications as regards consciousness, and the performance of automatic acts.

In the mildest fits the patient very frequently does not fall, and that such is not merely due to the extreme brevity of the fit seems proved by the fact that others, in an equally brief attack, will instantly drop and recover in a moment. Again, in certain fits the patient saves himself from falling by laying fast hold of some object. This is not unfrequently the case in the slighter varieties, but it will sometimes happen in fits of considerable severity.

But in some cases the automatic condition involves the mental function, and approximates the state of delirium. One little girl obeyed directions whilst in the fit, though after it she was quite unaware of what had happened. Another talked mechanically, yet was so insensible of outward impressions that she fell on the fire without being conscious of pain. Some exhibit a singular mixture of automatic talking and automatic acts; *e.g.*, a man began to rub his hands, to wipe assiduously a book he was holding at the time, looking around with a vacant expression, and talking like a man intoxicated; his face was pallid, his pupils unchanged. A young man suddenly leaned against his neighbour; he began to rub one hand against the other, and to wipe his mouth with his shirtsleeve; looked around with a saucy expression, and asked what we were going to do with him, then came to himself. The same state may introduce a fully developed fit. I was sitting by my patient when he touched me to call my attention to himself. His breathing became hurried and irregular; his pulse feeble; the action of his heart tumultuous; he called out "Oh! dear" in evident distress, but continued to talk clearly and connectedly in reply to our observations, and observed that this was a different "queer" from his usual ones; immediately afterwards he passed into a very severe attack of bilateral convulsions with perfect unconsciousness, widely dilated pupils, and internal strabismus of the right eye as the fit passed off. It is to be remarked that most of the subjects of these exceptional fits also suffer from others of the ordinary type.

But there are many cases which imitate yet more closely the condition of somnambulism, without, however, affording any evidence of a purposive character; one patient begins to walk backwards in her fits; another, a puddler, does not fall, but if at the furnace only stirs the iron more vigorously and without discretion; yet another walks about in a state of complete objective unconsciousness, followed by his fellow workmen, who guard him from injury; he comes to himself in ten or fifteen minutes, and then is "very heavy for sleep." A remarkable instance of a similar kind is afforded by a man, who, in addition to convulsive fits, has what he terms "bewildering spells," in which whilst at work, he leaves his tools, suddenly starts off to walk right onwards, and when conscious finds himself at a considerable distance from the spot whence he started. Another man gave me very much the same history. One other patient curiously united somnambulism with epilepsy. When she had her fits during the night she frequently, at their termination, found herself out of bed and completely dressed.

I notice briefly in conclusion variations in the supply of blood to different parts of the body, visible externally, or else manifested by increased activity of some glandular organ, as it is in the brain by restlessness and dreaming. It is needless to advert more particularly to the healthy phenomena with which such phenomena connect themselves.

I may allude first to the pallor of the face which appertains to the first stage of the epileptic fit. It is in the minor fits that this pallor is most noticeable; in these attacks the larynx often escapes, and therefore suffusion of the face does not necessarily obliterate the paleness which precedes it. Hence, in the description which the patient gives of the fit in question, the absence of colour in the face holds the most prominent place, and evokes such expressions as "paleness, deathly pale, aspect of death," etc., which are very frequently employed; and the term "faint fits," ordinarily applied to this form of epilepsy, sufficiently indicates the kind of impression which this symptom makes upon the mind of the beholder. I may refer in further illustration of this part of the subject to a paper by Dr. R. Reynolds (*British Medical Journal*, December 26, 1868), which presents some illustrations of local interference with the circulation in the limbs through paroxysmal affections of the vasomotor nerves.

The opposite condition, however, that of preternatural vascular fulness in some particular part sometimes presents itself in connexion with epilepsy, due to that unstable condition of certain nerve centres, which is indicated besides the fit by frequent starts, cramps, vertigo, headache, and others—the so-called inter-paroxysmal symptoms—in which, however, it is probably true that contraction of vessels is a more frequent phenomenon than dilatation. Of course these phenomena of vascular turgescence occur, we notice, in connexion with

epilepsy only as a part of a much larger series of similar changes in other conditions, but I confine my remarks to epilepsy. Thus, a lady who suffered from every kind of epileptic fit, both gravior and mitior, and from epileptic mania besides, presented a remarkable series of variations in the character of the small fit,—passing vacancy, with "set" aspect of features, and entire forgetfulness at the moment; then brief but perfect unconsciousness, dilated pupil and general slight tonic spasm without falling; then a haunting "idea" or a persistent tune; and also attacks of peculiar flushing, the neck and face becoming suffused with a deep blush, which reached even to the fingers, and was attended with subjective heat and a sense of oppression or suffocation.

Another case presented in a different form an analogy with shingles, in being accompanied by an affection of a sensitive nerve. The fit began with a pain in the left foot, running up the left side of the trunk, and then involving the left arm and cheek; as it reached the upper teeth, where it was exceedingly acute, a circular patch of vascularity, about the size of half-a-crown, appeared in the cheek. It continued about ten minutes, and when it left, the pain subsided also; a red mark also, called by the mother a "vein," followed the course of the pain up the arm. The phenomena recurred frequently, but never under my observation.

I have reported in this journal an interesting example of unilateral sweating occurring in paroxysms with other epileptic phenomena. The outbreak of the perspiration, which was very profuse, was preceded by a sense of such intense heat, that the patient did not doubt, on the first occasion, that his shirtsleeve had taken fire, and at the same time the cheek became so much suffused as always to give notice to the patient's wife of what was about to happen. He suffered from constipation, and was always worse when his bowels were confined. A slight degree of lachrymation on the affected side accompanied the sweating, with some dimness of vision, probably from impaired accommodation. In the same number of this journal with my case appears a similar case from the practice of Dr. Ramskill, the perspiration being nearly limited to the region supplied by the fifth nerve; two others are added, in which unilateral facial sweating co-existed with paralysis of the cervical sympathetic from pressure.

In another case, the child's mother informed me that during the fit the left side, which was rigid, was covered with a cold sweat. In a girl, perspiration having a strongly acid smell broke out over the entire body with the fit; she had *tænia*. A man was similarly affected in every fit; "before the perspiration comes he feels hot all over him like as if in a fire." The perspiration even saturated his flannel, and had a peculiar earthy odour. He stated that whilst it was present the surface of the body was pale; he also suffered from constipation; and a boy perspired so profusely in the fit that his mother was obliged to wrap him in flannel to prevent him from taking cold. Similar phenomena are recorded in two cases of epileptic mania, in one of which the patient suffered from constipation. I regret that I was unable to witness the attack in any of these cases.

Salivation and lacrymation are also mentioned in connexion with the attacks in certain of my cases, in one or two attended with pain in the fifth nerve.

GUNSHOT WOUNDS OF THE THORAX.(a)

By J. FAYRER, M.D., C.S.I., F.R.S.E.,
Professor of Surgery, and Senior Surgeon Medical College Hospital, Calcutta.

(*Continued from page* 32.)

Case 1.—M., a Brahmin Durwan, aged 32 years, was admitted into the First Surgeon's Ward of the Medical College Hospital on January 4, 1869, at 7 p.m., with two gunshot wounds in the chest, caused by a pistol-shot about an hour and a half before admission. Both the wounds were circular, having irregular margins, and of the size of a four anna piece. One was situated on the right side of the chest, in the infra-axillary region; the other in front of the chest, but on the left margin of the mid-sternum. The patient was admitted with considerable pain and moderate bleeding from the wound, with a feeble pulse; no hæmoptysis. A morphia draught (gr. ¼ to ʒj.) was ordered, and a mixture consisting of gallic acid gr.v., sulph. acid dil. mv., with ʒj. of water, every two hours.

January 5.—8 a.m.: Dr. Fayrer saw him, and directed the wounds to be hermetically sealed by lint soaked in gutta-percha and chloroform. Percussion note dull in the whole front of the chest, especially on the right side; respiration harsh; with bronchial râles; no hæmoptysis; respiration rather weak on the right side. Bowels being costive and skin feverish, a dose of castor oil was ordered, and a mixture consisting of—℞ liq. ammon. acetat. ʒij., morphiæ gr.ij., pot. acetat. ʒij., mist. camphoræ ʒvj.; one ounce every three hours. Patient put on milk diet.

From this date up to the 21st of the month, temperature and pulse, and physical signs of respiration, were carefully noted. The range of the former was from 98° to 102°; pulse from 76 to 108; respiration 32 to 40. Indications of bronchitis became more distinct, and on the 8th crepitation was heard in the right side of the chest posteriorly, near the wound in the side.

By degrees these disappeared, and on January 10 salines were changed for quinine, given at first every four hours, and latterly three times a day, with ten drops of tinct. ferri muriat. in each dose.

Besides the above medicines, laxatives, counter-irritants, and fomentations were prescribed, as the condition of the bowels or chest required. The gutta-percha and chloroform was changed several times, and latterly the wounds were dressed with carbolic oil dressing. He was discharged cured on February 13, 1869.

The patient progressed favourably throughout, with comparatively little constitutional disturbance. Had occasional attacks of fever. For the first few days after admission he was on a reduced diet, but subsequently his food was increased, with extra allowances of milk, soup, etc.

Case 2.—Abstract of the case of B. S., a Rajpoot Durwan, aged 30, in the Mercantile Bank, Calcutta, who was admitted into Hospital on January 4, 1869, and died on January 10, 1869, of gunshot wounds of the left side of the chest and left arm. The patient was brought to Hospital by the police at 7 p.m. There were altogether four wounds—one at the middle and inner aspect of the left arm, a second about two and a half inches below it on the anterior aspect of the same arm, a third in the left mammary region, and a fourth in the back, a little below and internal to the inferior angle of the scapula, about half an inch from the spine, left side. There was slight bleeding from the wounds in the arm, but none from the other two. Percussion note dull on the left side of the chest, emphysematous crackling heard all over the back, and sonorous ronchus all over the front of the chest. Respiration puerile on the right side; very weak in the left. No hæmoptysis. Pulse 96. Temperature 101°. Abdomen slightly tympanitic. Has been subject to intermittent fever for the last two months. Bowels cleared out with a dose of castor-oil and tr. assafœtidæ, and the following mixture given:—℞ liq. am. ac. ʒij., morphiæ gr.ij., pot. acet. ʒij., mist. camph. ʒvj. M.; ʒj. every three hours. Lint and cold-water dressing to the wounds.

6th.—Has paralysis of the lower extremities, except the left leg, which he can move a little. Expectorates a frothy fluid tinged with blood; not tenacious. Wounds painful. Is restless. Temperature 103°; pulse 116; respiration 48.

7th.—No expectoration of blood; stools involuntary; urine drawn off by catheter. Pulse 136; temperature 104°; respiration 28.

8th.—Wounds on arm cleaning. Pulse feeble, 128; temperature 103·5°; respiration 28.

9th.—Breathing laborious; is restless and delirious; has diarrhœa; 24 oz. of bloody urine drawn off this morning, and 20 oz. in the evening; mustard-plaster to chest; gallic ac. and diluted sulph. ac. mixture every three hours; beef-tea, milk, and sago, port wine, beef-tea and brandy enemata every four hours; pulse feeble, 104; temperature 101°; respiration 28; slight discharge from the wounds in the arm; paralysis the same; respiration in upper part of right chest, harsh; crepitation in the lower; respiration in upper part of left chest, harsh and attended with mucous râles; respiration in back harsh; marked bronchophony.

10th.—Cannot take nourishment. Lower part of left chest resonant; respiration attended with large mucous râles and amphoric sounds. 26 oz. bloody urine drawn off this morning and 24 oz. in the evening; gets worse towards evening. Pulse very feeble, 120; respiration 32°. Cannot retain any nourishment; is very restless; died at 12 o'clock midnight. The body was removed by the police, and I had no opportunity of making a post-mortem examination; but I am indebted to Dr. Woodford for the following brief notes of the autopsy given in his evidence before the coroner, which shows that the ball had passed through the left lung. The hæmaturia is not accounted for unless it were due to the catheter through which the disturbed bladder was relieved.

(a) Notes reported by the House-Surgeon.

"I am Police Surgeon, and examined on January 11, 1869, at the Medical College Hospital, the body of a native man, named Buldeo Sing, identified to me by Inspector Moriarty. I found a gunshot wound between the third and fourth ribs on the left side anteriorly, and a wound through the inner side of the left arm. Posteriorly near the left shoulder blade was a gunshot wound, and on the lower part of the body posteriorly was an abrasion of the skin; the left lung was pierced through with a bullet. The viscera otherwise appeared healthy, and the stomach was nearly empty. My opinion is deceased died from the effects of the wounds described, from the gunshot wound. I have already been examined touching the death of Saset Sing, who, it was said, shot the deceased, and who committed suicide by shooting himself.—Signed, C. O. Woodford, M.D., F.R.C.S. Lond., Police Surgeon."

Case 3.—Abstract of the case of a man named Joomuum, a Mahomedan, aged 45 years, a boatman of one of the Custom House boats, admitted into Dr. Fayrer's ward on December 22, 1869, with a pistol-shot wound in the left breast. Was discharged from Hospital on January 28, 1870; cured. Time under treatment 37 days.

The patient was admitted with a pistol-shot wound situated about three-quarters of an inch below the sternal end of the left clavicle; the bullet passed out at the back, immediately below the spine of the left scapula, having passed through that bone. The wound in front was circular, and about a quarter-inch in diameter, that in the back a little smaller. Not much bleeding from either wound. The patient says that whilst assisting to unload some carts, he gave a pistol, which he had about his person, to a Baboo who was standing by, and that as the Baboo was in the act of handling it, it suddenly went off, wounding patient in the chest. He was at the time standing in front of, and facing the Baboo. Neither of them appeared to know that the pistol was loaded.

On admission, respiration 24; good in the left lung; no difficulty of speech; pulse 84; temperature 100° Fahr.; coarse crepitation about the bullet-hole in front; vesicular respiration below that in the left back. On the following day he coughed a good deal; no expectoration of blood; much pain in the left shoulder-blade. Coarse crepitation around a circle of about three inches radius of the wound in front; percussion note good there, that in the back dull, but respiration tubular.

On the 25th he began to spit blood in small quantities; pain in the shoulder blade increased; pulse 100; respiration 28; temperature 101° Fahr.; bronchial breathing near the bullet-holes; tubular breathing below the wound in front; vocal resonance much impaired in the parts.

26th.—No spitting of blood; tongue clean and moist; pulse 96; temperature 101° Fahr.; respiration 20; feels better.

28th.—Expectorating dark brown thick sputa. About three inches below the wounds on either aspect, back and front, there is harsh bronchial respiration; no mucous râles.

31st.—Expectoration continues the same; sleeps well; appetite good; pulse 92; respiration 36; temperature 99·2°.

January 12, 1870.—Respiration and percussion about the bullet-wound almost natural, as also vocal resonance; the cough has ceased; respiration 20; pulse 80.

The patient had an attack of diarrhœa for a few days, which yielded to treatment (ipecacuanha and Dover's powder). After this he went on improving steadily till the 28th, when he was discharged cured.

The wounds were dressed with lint and carbolic acid oil, and the diet was nourishing. Stimulants were not found necessary during the whole time he was under treatment.

Case 4.—A healthy-looking Englishman, aged 30, an engine-driver on the East India Railway, received a gunshot injury of the chest on March 18, 1870. He was resting the muzzle of a double-barrelled gun loaded with No. 2 shot against the right side of his chest, the butt of the gun being supported by his foot. In some unexplained way one barrel was discharged in this position, and the contents entered his chest through the seventh intercostal space, fracturing the upper rib. The aperture was at a point intersected by a line drawn vertically from the right nipple. The accident occurred in a railway-carriage, and he had been under treatment for some days at Ramporehat. The wound is said to have bled freely at the time, but the hæmorrhage was soon arrested. He was admitted into the Medical College Hospital on the morning of March 25, just a week after the accident. The wound was then about an inch in diameter, its margins sloping and granulating towards the centre. There was a considerable portion of sloughing integument still unseparated. There was little or no movement of the right side of the thorax, which was dull on percussion generally, excepting at the apex. Air could only be heard to enter at the posterior part of the right lung. Had been expectorating blood for the previous two days only, and cough ever since the accident has been very troublesome. There was some dyspnœa. The breath-sounds in the left lung were normal, and the heart-sounds were healthy. Pulse 124. Temperature 102·8° in the right axilla, and a degree lower in the left. The wound was dressed with water-dressing, and over it carbolic glycerine. The following medicine was prescribed every three hours:—℞ liq. am. acet. ʒij., tinct. camph. co. ʒj., aq. camph. ʒv. M. A copper-coloured eruption indicated the presence of constitutional syphilis. This, he says, is the result of an attack of syphilis five months ago, and he has been taking iodide of potassium for it for some time. It does not appear to have injured his general health: he looks otherwise as though before the accident he had been strong, healthy, and well-nourished.

There was no change of importance until April 2, when symptoms of pleurisy and pericarditis set in. The expectoration previously tinged with blood showed evident indications of being deeply tinged with bile. His countenance became more sallow, anxious, and depressed.

On April 5, the endocardium was involved. The inflammatory symptoms became more and more marked; the area of cardiac dulness increased; precordial thrilling became more manifest; the friction seemed louder, and the action violent and very irregular (varying from 56 to 120 in a minute); the systolic bruit more distinct. The pleuritic friction extended to the side and above the heart; the respiration became weak and bronchial on that side. The expectoration became more free and rusty coloured, at times with a faint but offensive bilious odour; low, muttering delirium with restlessness and subsultus tendinum supervened.

On April 10 his condition was extremely bad.

On April 11, a dark-looking, thin offensive expectoration was freely established. The right side had gradually become more resonant, and the patient lingered on in an almost hopeless condition, with cold clammy perspiration and ever varying sputa for about a week, during which he varied but little in the general symptoms, though the cardiac signs went on gradually fading, and the right infra-mammary region becoming tympanitic with distinct amphoric breathing, and metallic tinkling began to be heard.

By the 17th the heart sounds had become almost natural; and all abnormal sounds vanished by the 20th. The pleurisy also disappeared by the 23rd, and the respiration became normal in the left side, while amphoric sounds, with metallic tinklings, continued the same in the right side. It was from this time that he showed symptoms of improvement (*i.e.*, April 20). The perspiration lessened, and the expectoration gradually became converted into a bilious, yellow, thin, offensive liquid. He began to improve, to be quiet and rational, taking his food better, etc. In fact, he was then doing well to all appearance; the heart sounds and the left side respiration continued free and clear, while the right side remained amphoric, with metallic tinklings. The expectoration became more and more profuse (8ʒ or more in the day), and the cough more and more harassing, and often, remitting for a time, came on in a sort of fits, of which he had a severe one on the morning of May 3, and died about 11 o'clock a.m.

The temperature was always high, ranging between 100°-102·8° Fahr. The greatest variation of the pulse was between 112 to 140, and the mean variation was between 116 to 124; and that of respiration was between 22 and 30. The wound was always healthy, and though about the onset of the pleurisy and pericarditis its discharge had an appearance of liver pus (on the 20th), yet no apparent communication could be traced with the cavity of the chest. The wound gradually cicatrised by April 10, when the patient was very low. It had nearly healed by April 28, when he was apparently improving. The hepatic region was more or less tender throughout, but no enlargement of the liver could be detected during life. *Urine*, pretty free at first, became scanty from April 17, when pericarditis had ceased, and the pleurisy abating. It was deficient in chlorides throughout. Thus, on March 29 there was none; March 31, April 6, and 11, traces could be found; April 16, none; April 25, traces more apparent. The bowels were generally regular; but latterly they became rather inactive, and an enema was occasionally required. The treatment generally was that of supporting the strength, allaying pain and irritation by anodynes and by counter-irritants when inflammatory mischief rendered them necessary. The comp. tinct. of camphor, and occasionally morphia, were of the greatest benefit. Quinine and sulph. acid were also found useful in the profuse sweats which were very frequent towards

the end of his illness, which were aggravated by the intense heat of the weather. Counter-irritation was kept up steadily by mustard plasters and hot fomentations at first; constant turpentine stupes were applied at the height of the pericarditis, and continued for some time after—*i.e.*, from April 7 to 10—after which the precordial region was daily painted with tinct. iod., with occasional sinapisms when dyspnœa occurred. A mild nourishing diet was given him till the attack of pleuro-pericarditis on April 2, when port wine was given freely. Beer was also given.

Autopsy.—On opening the chest, the right lung was found to be collapsed and shrunk into an oblong mass by the side of the spine, attached by two bands of tissue stretching along the diaphragm to the wall of the thorax, the result of adhesions. The pleural cavity was half filled with a thin yellow fluid, like that he expectorated during the latter days of his illness. A few shot were found loose in the cavity. The collapsed and carnified lung also contained some shot. The larger bronchial tubes could be traced down the mass. An opening communicated with the liver through the diaphragm, and also one from the liver into the thorax. The tissues were all matted together and inseparable. The liver was wonderfully little diseased, excepting where it communicated with the lung and the thorax. Beyond this cavity there was no abscess. It was pale and somewhat fatty, but not otherwise diseased. Several shot were found in the cavity and imbedded, indeed encysted, in its substance. The heart was adherent generally to the pericardium by recent adhesions. There was no clot in the cavities, and the valves were healthy. The left lung was healthy, but its anterior and lower part was adherent by recent adhesions to the thoracic wall. The shot-wound had cicatrised, and it was difficult to find it on the inner surface. The eighth rib was broken about an inch from its costal cartilage. Part of this and of the rib above it was necrosed. A few shot were found here also; several lay under the integument of the thorax in the vicinity. The sixth and seventh ribs were necrosed also about two inches from the spine, and a few shot were also found imbedded here in the soft parts. It was remarkable that a charge of shot penetrating from so short a distance did not perforate the side like a bullet—they scattered in all directions: into the muscles of the thorax, the liver, lung, and thoracic cavity. It is also remarkable that no part of the clothing nor of the wadding should have been forced into the wound.

ON THE

USE OF ARSENIC IN CERTAIN PAINFUL AFFECTIONS OF THE STOMACH AND BOWELS.

By ARTHUR LEARED, M.D., M.R.I.A.,
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As the scope of these remarks is to be exclusively practical, I do not stop to consider the nerve distribution of the gastro-intestinal tube in relation to pain. This has been carefully done by Dr. Eulenburg in his papers on visceral neuralgia now being published in this journal.

Pain after food is a very common symptom of dyspepsia, and in many cases seems to constitute the disease. This pain usually yields to Medical treatment and proper diet. But there is another kind of gastric pain far more severe than that which depends on food, and which does not yield to ordinary remedies. I have elsewhere pointed out how this pain may be removed, and the subject seems of sufficient importance for some further remarks.(a)

In case of the stomach, the pain we have to deal with happens to the same individual at one time when it is full, at another time when it is empty. But cases are met with in which the presence of food in the stomach is clearly the exciting cause. The typical case is that in which there is pain independent of the act of digestion. In this form it commonly seizes the patient in the middle of the night, and is not preceded or attended by any dyspeptic symptoms. The pain in these instances, which are fortunately not very common, is extremely severe, and attended with alarming prostration, lowering of the heart's action, pallor, and cold perspiration. Brandy and other stimulants give but little relief, and after a period of agony sometimes extending to several hours, the attack ceases as suddenly as it had commenced.

Persons of middle age who have been exposed to some great cause of mental depression are peculiarly the subjects of this affection of the empty stomach. Dr. Budd has also noticed mental disturbance as an exciting cause of the disorder, and he adds that "it is closely allied to water-brash." In this statement I do not concur, for without entering into the vexed question of the nature of water-brash, it is sufficient to say that a particular remedy which cures the one proves injurious to the other.

Further experience has taught me that the bowels, and especially the small intestines, are subject to the same kind of pain. I do not include colic from the effects of lead; but many cases of so-called colic unaccountably occurring at longer or shorter intervals are from the same cause. For whether the pain attacks the stomach or the intestines, its nature is the same; it is essentially neuralgic. Upon this circumstance the success of the new treatment, which consists in the judicious exhibition of arsenic, depends. As may be inferred from what has been stated, the difficulty of diagnosis between the neuralgic and the more common forms of gastro-intestinal pain is sometimes very great. The best rule of practice is, when gastric or intestinal pain resists all ordinary treatment, and cannot be traced to gall-stones or any organic source, to test the matter by the effect or non-effect upon it of the remedy. By this method I have succeeded in effecting several cures. On the other hand, the arsenical treatment has failed in two cases in which, so far as the diagnosis could be established, it ought to have succeeded. In both instances the patients were women past middle age, of stout habit, and too freely addicted to the use of alcoholic stimulants.

The curative effects of arsenic are most striking in severe cases of paroxysmal pain, and its success becomes doubtful in proportion as the case assimilates to those in which a lower degree of pain is traceable to the influence of food. In determining the question of the fitness of a case for the arsenical treatment certain circumstances may render essential aid. If the disease came on after some mental shock or severe trial, if the patient has previously unmistakably suffered from neuralgia, if he has lived in a marshy district, and especially if he has had hemicrania or ague, and if in addition to the occurrence of one or more of these circumstances the pain is paroxysmal, it will almost certainly yield to arsenic. But as already said there are other cases suitable for the treatment, and they are the most numerous, in which the pain closely resembles that which attends dyspepsia. It is sometimes extremely difficult to make the diagnosis between neuralgic pain of the stomach or bowels and the pain caused by gall-stones. But in my previous paper I have gone into details respecting this and other sources of error.

A few words will suffice as to the particular preparation of arsenic to be selected, and the extent to which it should be used. In most cases the liquor arsenicalis answers every purpose, but when the system is more than usually susceptible of the action of the mineral the liquor sodæ arseniatis seems to irritate less, and in a few instances the acid solution of arsenic is to be preferred to either. Whatever preparation be selected it should always be taken immediately after food, and, notwithstanding that its beneficial action may have been previously observed it will be proper to continue the medicine until its constitutional effects are well marked. Notwithstanding what has been said to the contrary I do not believe that the proper use of arsenic as a medicine is followed by any injury to the system.

The following brief notes illustrate the utility of the treatment in cases in which the pain is increased by food, and also its effect in cases in which the intestines are affected:—A lady, 40 years of age, who had met a reverse of fortune by the death of her husband two years previously, was sent to me by her Medical attendant in January, 1869. I was informed by him that every ordinary means, including a milk and farinaceous diet, with entire abstinence from meat for eight months, had been exhausted in his attempts to relieve her sufferings. These consisted in constant pain in the gastric region, extending round the left side to the centre of the back. The pain was much aggravated by meals, especially by breakfast and tea, and at times it amounted to perfect agony. Vomiting frequently ensued, and then some relief of the pain was obtained. There was great flatulence, a sense of oppression in the stomach, and obstinate constipation. The patient, naturally of stout habit, had lost over 50 lbs. in weight. She was immediately put on the arsenical treatment, which was speedily followed by great improvement. This treatment was

(a) "The successful Use of Arsenic in certain Kinds of Gastric Pain." (Read at the meeting of the British Medical Association at Dublin, 1867.) *British Medical Journal*, November 23 and 30, 1867.

continued, and the dose gradually increased until the constitutional symptoms, which consisted in this instance of itching of the eyes, soreness of the soles of feet with a red rash upon their sides, ensued. By this time her cure may be said to have been complete; she rapidly gained flesh and strength, and has since remained well.

The symptoms in this case resembled those of ulcer of the stomach, but the fact that a rigid milk and farinaceous diet increased rather than diminished them was opposed to this view.

A gentleman, 28 years of age, much engaged in commercial speculations, consulted me in the early part of the present year. He had been for a long period subject to a violent but dull pain in the umbilical region, coming on about two hours after meals. For the three previous weeks it had happened daily after breakfast, luncheon, and dinner. Liquids, even plain water, induced it more than solids. There was neither flatulence nor any other stomach disturbance, and the bowels were quite regular. Various plans of treatment had been found ineffectual. He had suffered from neuralgia in the left temple two years previously. Notable relief was afforded by the liquor arsenicalis after it had been taken only two days; it was continued altogether for about three weeks, when his eyes became affected. At this time the disease had quite subsided.

12, Old Burlington-street.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

ANEURISM OPENING INTO LEFT BRONCHUS AVOIDING THE RECURRENT NERVE, WHOLLY WITHOUT SPASMODIC SYMPTOMS.

(Under the care of Dr. MOXON.)

This case is interesting, because the whole of the left pulmonary plexus of nerves was quite destroyed, while the left recurrent laryngeal escaped, and under these circumstances there was not any spasmodic affection of larynx. The patient was a man, aged 65, who was in Edgware Workhouse Infirmary, under Mr. Blasson's care. Mr. Blasson detected the aneurism, and sent the case to Guy's, under the care of Dr. Moxon. The patient had had an incredible share of serious accidents. The chief of these were that thirty-six years ago he fell and broke his ribs, dislocating his shoulder; afterwards he fell twenty-six feet, and was laid up a long time; then four years ago he was run over across the back of his chest; and since that time he had never been well, but always had pain in his back. For fourteen months he had suffered from cough and occasional hæmoptysis.

On admission he had cough and moderate permanent dyspnœa; sputa in moderate amount of a glairy matter, more or less tinged with bright blood, sometimes of the "currant jelly" character. The left chest was resonant everywhere, but the breathing sound in it was very deficient, almost absent at times, at other times very plain but distant and tubular, no pulsation could be felt. There was no abnormal cardiac murmur, but the second sound was so loud and sharp, that it at once arrested attention. One also *heard a beating* in the left supra-scapular region. There was no enlargement of veins or glands. He did not suffer more than an ordinary case of senile phthisis, and the physical signs alone led to the conviction that the case was one of aneurism. Four days before his death his temperature suddenly rose to 103°, and he felt ill. The sputa became tenacious, and diminished in quantity. He sank with signs of acute pneumonia.

The *post-mortem* gave very neat and convincing, if not conclusive, evidence of the traumatic origin of his aneurism. There was in each chest an old adhesion of the lung, near its root, to the thorax. On each side this was of the size of the palm of one's hand. On the right side the adhesion had certainly nothing to do with the aneurism, which did not affect the right chest, and on the left it extended to a distance beyond the very limited contact of the aneurism with the thoracic wall. These adhesions were just at the spot where in his last accident he had been run over. The aneurism was at a point in the aorta just opposite these adhesions, which it did not cause, nor did they cause it. But a common cause existed for both, in the passage of a cart-wheel over the spot where these changes were found. The aneurism was fusiform, implicating the whole circumference of the vessel; it was as large as a potato, and from its left side a secondary aneurism had extended into the left lung, whose tissue was compressed before this sac, which had the size of a half-orange. The left recurrent laryngeal nerve passed round the aorta just above the aneurism, and was not at all compressed, but perfectly free. But there was no back to the left bronchus for nearly the whole of its course; it was replaced by ragged aneurism clot, which showed a rough surface towards the interior.

This case offers a very exact and conclusive experiment in nervous physiology. Such evidence as it affords is by far more reliable and satisfactory than any results can be which are got by those severe mutilations of animals which are necessary to expose and divide nerves so deeply seated. The effect of it is to support strongly the belief that the irritation of the bronchial plexus does not produce laryngeal spasm. Another very important reflection arises in considering the state of the left lung after the removal of its proper nervous influence. There was no sloughing of the lung, but there was lobular pneumonia producing scattered hepatisations in the centres of the lobules, about the ends of the bronchial tubules. The same condition existed in the right lung to a less extent, although there was no pressure on its pulmonary plexus. Now, very important consequences have been ascribed to destruction of the pulmonary nervous plexuses, especially sloughing of the lung which is not infrequent as a result of aneurismal pressure on its root. Other Physicians prefer to think that such sloughing may be due to obstruction of the bronchial artery, which supplies the tissue of the lung. Dr. Moxon held that this case—as well as others that he had seen—opposed these views, and he preferred the following as the true explanation of the broncho-pneumonia of this case, and sloughing in others: namely, that the irritated and compressed bronchus becomes loaded with excess of secretion which it cannot void, and which consequently decomposes more or less, and that these retained secretions set up inflammation that extends to the tissue of the lung, causing more or less severe inflammation even to the pitch of producing sloughing of its tissue. This occurrence would be equivalent to the inflammation and destruction of the kidney, which occurs in consequence of stricture of the urethra, and retention of urine. Aneurisms pressing the air-tubes usually kill by this pneumonia.

ALL SAINTS' CONVALESCENT HOSPITAL, EASTBOURNE.

As the season of the great London holiday draws near, and Doctors as well as patients are beginning to look forward to the rest and change of a few weeks by the seaside, which is to tide them over the anxieties and hurried overwork of another long year,—it is pleasant to see how the poor ones fare whom we so frequently send from the Hospital wards of our hot and dusty city to some convalescent institution. With this object in view we ran down to Eastbourne one day last week to see the new Hospital there, and we were rewarded for our trouble in a degree we had not ventured to expect. Those who know Eastbourne will remember the long climb over the cliffs on the west towards Beachy Head, and the delicious blow that is enjoyed as one wearily toils up that chalky prominence. Well, just about a mile from the town, well sheltered from the south-west wind, near to the edge of the cliff, on the way to Beachy Head, stands the Hospital—a very striking feature in the landscape. It is a remarkably handsome red brick building, bristling with quaint pointed gables and ornamental chimneys and windows, with pretty light finials and deeply set shady balconies, and surrounded by about five acres of garden. The garden, it is true, is as yet hardly worthy of the name, as the flowers and shrubs planted there are none of them flourishing, as it is to be hoped they will do in time, but already the garden contains a retreat of inestimable consolation to many of the male patients in the shape of a small brick house, formerly occupied by the clerk of the works, and now given up as a smoking-room to be used in wet or inclement weather. The great characteristic of the Hospital is its semi-ecclesiastical appearance. We were particularly impressed by this at our visit, for we were there on one of the hottest days of this summer, and coming out of the blinding glare of the chalk cliff and scorched grass, into the cool empty wards, with religious emblems all around in the shape of scriptural texts graven on the walls and chimney-

pieces, and pictures of sacred subjects, we were reminded of the beautiful lines with which Longfellow opens his translation of Dante's Inferno, and felt almost awed as if in church. From the statue of the Madonna and Child over the main porch, to the handsome temporary chapel at the top of the building where prayers are said daily by the resident chaplain, everything tends to keep up the impression that the place is as much a religious house as a Hospital, and the quiet grave manner and distinctive attire of the Sisters of Mercy who tend the patients fit in well with the other church-like surroundings. There is, however, no restriction as to the creed of the patients received. A large airy hall occupies the centre of the building, a massive stone staircase winding round it and leading up to the wards. The east half of the house is occupied by women, and the other by men. On the ground floor are four fine lofty sitting-rooms, two for men and two for women, well furnished with books of all kinds, writing and working materials, easy chairs and couches, and such games as bagatelle, dominoes, chess, and backgammon. Such patients as are not able to be much out-of-doors, are encouraged to use these rooms in preference to the wards, so that we saw hardly a bed occupied. As a rule, however, when the weather permits, all the patients are out from 10 to 12 in the morning, from 2 till 4·30 in the afternoon, and in warm weather again in the evening, being then limited to the Hospital grounds. The wards are, therefore, really sleeping-rooms, and, from their great height and capital ventilation, are just what convalescents need in the way of airy cheerful apartments. Each ward contains from twenty to thirty beds, and each has its own lavatory, bath-room, and four closets, these opening by a passage into the ward. At one end of the ward long windows open door-wise on to deep sheltered balconies, where patients may take the air who are unable to walk out. Besides these larger rooms there are two children's wards, furnished with fifteen beds for boys and nineteen beds and cots for girls, and in these children are nursed as young as two years of age. There are, besides, several private wards for patients who can afford to pay 12s. 6d. per week for an independent room (9s. per week being the ordinary payment for those who go without a subscriber's letter), and four other private sleeping-rooms at 21s. per week. The ventilation of all the rooms is arranged for by little doors near the ceiling, opening into a main shaft of heated air, fresh air being supplied through openings in the wainscot near the floor, guarded by fine metal trellis-work, and capable, like the upper openings, of being partly closed at pleasure. The whole building is heated by hot-water pipes, those in the wards being arranged in a central block and covered with a long slab of marble or glazed tiles, on which stand vases of wild flowers, are made to form an agreeable addition to the ornaments of the room. The accommodation of the patients is completed by two spacious refectories. At the time of our visit these were being prepared for tea, piles of massive slabs of bread and butter garnishing the long tables, and we were assured by the Sister that ample justice was done to the fare, seven such slices being a not uncommon allowance for one man.

More than a hundred and fifty beds are now kept always full—so full that applicants are already waiting two weeks for their turn for admission, and of this large number of cases constantly passing through the Hospital, all seem to derive very palpable benefit, excepting perhaps certain cases of heart disease and of advanced phthisis. Two or three patients with frequent hæmoptysis have clearly got worse in the Hospital this spring, and, as a rule, phthisical patients fare ill there during the winter and spring. Many children with enlarged glands and strumous joints derive very marked benefit; but for this it is usually found necessary for them to stay some few weeks over the allotted period (three weeks). As one would expect, patients recovering from the effects of operations and under prolonged treatment for joint-disease make great progress. When we were there, there were two or three convalescents after amputations, one woman rallying from ovariotomy, and very many with diseased joints. The worst cases and those patients least able to walk are warded on the ground-floor. A special feature of the Hospital management is that, unlike most institutions of the kind, cases are received still requiring careful nursing and attendance, and at night the wards are superintended by nurses sleeping in small upper rooms at one end of the ward, the nurse's window opening into the ward, so that the nurse is readily accessible without being obtrusively present. We were not surprised to learn that this window in the boys' ward is in pretty constant requisition. The patients generally seem very happy, and cheerful, and well-behaved. Many attend the daily services in the chapel and avail themselves of the chaplain's ready assistance, and all seem thoroughly to appreciate the large-hearted charity which sustains the good Sisters in their work of mercy amongst the suffering poor. For it should be mentioned that the existence of this fine Hospital originated entirely with the nursing Sisters of All Saints' Home, Margaret-street, and their friends, and a large staff of the Sisters is employed to nurse and manage the place. University College Hospital, which owes so much to these Sisters for their work in its wards, has secured sixteen permanent beds, so that a continual stream of patients passes from the one Hospital to the other, to the great benefit of both institutions. We were surprised to find that no other of the London Hospitals had made similar engagements, for without a doubt the Eastbourne Convalescent Hospital is in every respect a model of what such a place ought to be, and one of the most valuable adjuncts conceivable to a large city infirmary.

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Medical Times and Gazette.

SATURDAY, JULY 23, 1870.

FURTHER EVIDENCE AS TO THE CONTAGIOUS DISEASES ACTS.

One of the most important contributions to the literature of this subject has just issued from the pen of Mr. Christopher Bulteel, Surgeon to the Royal Albert Hospital, Devonport. If we consider that this gentleman is also President of the Plymouth Town Mission, and late Secretary to the Plymouth Female Home, we may be certain that his advocacy savours neither of irreligion nor want of philanthropy; nevertheless, he is a strenuous supporter of these Acts, and, indeed, the pamphlet is chiefly written to persuade Christian people of their efficacy, "morally as well as socially, for he regrets to find them associated in their opposition to the above Acts with practical infidels and advocates of the worst vices of French society." The case, as put by Mr. Bulteel, is certainly a strong one, and the new information he contributes is of the utmost value. First, he makes certain propositions, which he proceeds to examine in detail; two relating, as they do, to the morality of treating such diseases, and the extent of the evil they constitute, are so self-evident as to need no discussion in our columns. The third relates to the Acts in question; first of all, as to their results. He shows that, in all places where they have been applied, the health of the soldiers and sailors, the only classes as to which we have any reliable data, has been improved. At Plymouth the average admission of nine years was 35 per cent. of the forces; in 1869 they were 21 per cent., and like results have elsewhere been attained; a success which amply justifies Government in its interference; a success, further, which has never been questioned, save by certain fanatics.

But the next question considered is one on which there may be greater latitude of opinion, and on which reliable evidence is peculiarly valuable—that is, the social and moral effects of the Acts. Were these detrimental, there are many, and Mr. Bulteel is one of them, who would never tolerate such regulations for their physical effects alone; but, as is here shown, they are undoubtedly good. As to reclamation, he shows that at Devonport nearly 1100 women have been taken off the streets, but bitter experience has taught him that these cannot be considered finally disposed of; indeed, a reformed prostitute would seem to be almost as much of a *rara avis* as a reformed thief, provided, that is to say, both have been thoroughly inured to their trade. Indeed, we should be inclined to think that the only instances are those where women get married, or where they leave their trade because their trade has left them. A few who have become diseased immediately after entering on a course of prostitution, may, if sent home and kept away from temptation, do well, but even these are subject to relapses. Above all things, it should not be forgotten that in some instances a career of prostitution implies an actual rise in the scale of physical well-being, and in nearly all a relief from unpalatable drudgery.

Mr. Bulteel next proceeds to the difficult inquiry as to the influence of these Acts on clandestine prostitution; and here it is necessary to stick fast to the argument, which is not whether restraint generally favours this, but whether these Acts, carried out as they have been, have done so at Plymouth. On the whole, there is evidence that this form of prostitution has not increased, but rather diminished, for reasons assigned by Mr. Bulteel. *Apropos* of this, he writes:—"I claim, then, for the Act, first, that it has produced an immense diminution in the number of public prostitutes, and that in doing so it has been the means of reclaiming far more than would have been reclaimed by mere voluntary efforts, as tested by the previous experience of many years; and secondly, that it has also greatly diminished the number of a large class of clandestine prostitutes, while there is no evidence that it has in any way tended to increase the clandestine form of vice at all, but rather a strong presumption to the contrary." This evidence is all-important, and in proof of its truthfulness, Mr. Bulteel says his authority is prepared to make a statement upon oath as to its accuracy. This, indeed, has been the great weapon of those opposed to these and suchlike Acts; another which has been also called into play, we think, needs but slight exposition when it, too, becomes blunted—that is the liberty of the subject. In these days majorities rule. If, therefore, these Acts tend to increase the welfare of the majority they ought to be maintained. The only question which arises is, Have they been carried out in such a way as to inflict the least possible inconvenience on the minority? If not, let it be seen to that they are so in future. On the whole, it is here shown that they have been carried out with a due regard to those affected by them, and with the results above stated. As to the allegations that they amount to a licence, or that the examination of the women is degrading, they will not hold water. So at last we have to come to the practical point, Supposing these laws to be swept away, what is proposed in their place? Of course there is the proposed increased Hospital accommodation; that might do something, but undoubtedly it would not meet, though it might mitigate, the evil. And it is curious that those whose experience is widest and most worth having are most emphatic on this point. That the laws as they now exist, and as they are now administered, admit of some improvement is here pointed out, but that they have improved the health of our army and navy is certain; and that they have in one place at least ameliorated the condition of those most directly concerned is also clearly proved. Mr. Bulteel must have the satisfaction of having done more to reconcile worthy and religious people to these Acts than has any one before him. How the opponents of the existing Act carry out and enforce their views may be illustrated by another quotation from Mr. Bulteel—

"One word to the opponents of the Act on the question of liberty. The mode in which they are conducting their opposition, is to my mind the grossest interference, both with liberty and public decency. They are inciting the women by printed circulars distributed among them, a copy of which I have in my possession, to evade what they know to be the law of the land; and they tell them that money has been subscribed, and is at their disposal, to assist them in such evasion. They are endeavouring to prevent the women from signing a voluntary submission to Medical examination, in order that the police may be enforced to use the magistrates' power as often as possible, to the detriment of public decency and the hindrance of reclamatory effort on behalf of the women. They do not scruple to obtain signatures to petitions against the Act from brothel-keepers and prostitutes. In calling public meetings they issue inflammatory circulars to the working classes, appealing, as they also do in their addresses, to the passions more than the judgment of the people, and insuring anything but a dispassionate consideration of the subject in hand. They demand the immediate repeal of the Act without offering any feasible alternative for dealing with the terrible evil of prostitution. All these proceedings, I maintain, are gross outrages of the cause of liberty, constitutional government, and common sense.

"As far as violation of public decency goes, I need only call attention to the way in which our breakfast tables have been inundated with circulars and appeals, abounding not only with distorted facts and wild and passionate declamations, but also with disgusting and filthy details, which it has required our utmost vigilance to prevent from falling into the hands of our wives and daughters. While I will yield to none in admiration of the zeal and earnestness with which ladies always espouse a cause which they believe to be right, I think that in this instance the zeal and earnestness of the Ladies' Association has not only overrun their judgments, but has led them to overstep the bounds of public decency, and I think that the climax in this respect was reached when Mrs. Josephine Butler, the wife of a clergyman, delivered an address at the Plymouth Mechanics' Institute, before a meeting of men, on the subject of prostitution. I leave the public to decide whether I am right or wrong."

Since writing the above we have had another debate with closed doors in the Commons, previous to which there was circulated a pamphlet entitled "Report of Deputation to Plymouth by the Birmingham Anti-Contagious Diseases Act Association." Of this production, as of certain others of the same school, it is difficult to speak or even think with equanimity. Whatever may be the defects of these laws, whatever may be the grievances of the unfortunates subjected to them, that is no reason for flooding the country with moral sewage. Prostitutes are doubtless persons to be pitied, but they are not paragons of virtue; and it is difficult, except to people of a peculiarly constituted mind, to become enthusiastic over their woes; but even although these do thus excite themselves, there is no reason why society should be pestered with printed dirt. If the anti-Contagious Diseases Act agitators will persist in continuing to manufacture it, we beg it may be for home consumption only. The laws, if unjust and oppressive, will never be repealed by an opposite course of procedure. The tone of these two pamphlets on the same subject is in strong contrast. They differ as does light from darkness.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. II.

We have mentioned that in the administration of medicines by hypodermic injection and by the spray apparatus we have acquired two new and very valuable modes of giving remedies. They have both been largely used, but by comparatively only a few members of the Profession, and, considering their advantages, it is remarkable, and perhaps not very creditable to us as a body, that their value has not been more widely and generally recognised. It may therefore be useful to speak at some length of the various advantages these methods of administration offer us; and, as regards hypodermic injections, we shall for

this purpose freely make use of the valuable report of the scientific committee appointed by the Royal Medical and Chirurgical Society "to investigate the physiological and therapeutical effects of the hypodermic method of injection,(a) and of an excellent and highly instructive article by Dr. Anstie on "The Hypodermic Injection of Remedies."(b)

The injection is best made in the manner described by Mr. Charles Hunter — raise a fold of loose skin between the fingers, and push the canula through into the loose cellular tissue under the skin; inject slowly, with short pauses, wait a little while, and then slowly withdrawing the canula press the finger firmly on the track, and keep it applied over the puncture for a minute or two. If it is necessary to inject where a loose fold of skin cannot be obtained, then the skin must be strained to one side with the thumb, and the canula pressed steadily in. This proceeding is more painful than the former, and the point of the canula may not get into the subdermic cellular tissue, when the injection will be more difficult, and must be more slowly performed.

The Hypodermic Committee presented, as resulting from their investigations, several conclusions which may be taken as guides to the employment of hypodermic injection. They were:—

"1. That, as a general rule, only clear neutral solutions of drugs should be injected.

"2. That, whether drugs be injected under the skin or administered by the mouth or rectum, their chief physiological and therapeutical effects are the same in kind, though varying in degree; but

"3. That symptoms are observed to follow the subcutaneous injection of some drugs which are absent when they are administered by the other methods; and, on the other hand, certain unpleasant symptoms which are apt to follow the introduction of the drugs by the mouth and rectum are not usually experienced when such drugs are injected under the skin.

"4. That, as a general rule, to which, however, there are many exceptions, neutral solutions of drugs, introduced subcutaneously, are more rapidly absorbed and more intense in their effects than when introduced by the rectum or mouth.

"5. That no difference has been observed in the effects of a drug subcutaneously injected, whether it be introduced near to, or at a distance from, the part affected.

"6. That the advantages to be derived from this method of introducing drugs are: rapidity of action, intensity of effect, economy of material, certainty of action, facility of introduction in certain cases, and, with some drugs, avoidance of unpleasant symptoms."

The necessity of careful attention to the first conclusion might be copiously illustrated by quoting recorded instances in which inflammation and abscess have followed on the hypodermic use of irritating solutions; but worse results than these may follow. Professor Fonssagrieves, of Montpellier, has noted two cases—a child and an adult—who died of traumatic tetanus after hypodermic injections of sulphate of quinine, dissolved in water and a little sulphuric acid. And Dr. Mitchell recorded, in the *Southern Journal of Medical Science*, a case of a male adult who died from apparently the irritation and exhaustion produced by a large irritable, corroding ulcer on the arm, which followed on hypodermic injection of quinia, practised over the lower deltoid region of the arm. But with due care such accidents may be avoided. In the experiments made by the Hypodermic Committee, "no local injury followed the injection of five grains of quinine" in one instance, though in another, "where a large quantity of water was used, an abscess formed, perhaps from the fluid having been too rapidly injected." And Dr. Anstie observes—"The only case of serious inconvenience which has occurred among the hundreds of injections I have made was the formation of a small abscess in the cellular tissue of a gentleman in whom I injected *chloroform*—an agent entirely unfit to be used in this way, as I am now aware."

(a) *Medico-Chirurgical Transactions*, vol. l., pp. 561 *et seq.*

(b) *The Practitioner*, vol. i. pp. 32 to 41.

Increased experience has given us fuller and wider knowledge of a truth expressed with great caution in conclusions 2 and 3. As the hypodermic method of giving medicines is more and more practised, it becomes more and more certain that drugs may in that way be administered with very great advantage in diseases, and under circumstances, when their exhibition by the mouth would be injurious or comparatively useless. Among the most important advantages of the hypodermic over the gastric administration must be noted the "entire abolition of the depressing or irritant effects which are locally produced in the alimentary canal during the *digestion* of various remedies, and far greater *permanence of effect*, in many cases, than can be produced by medicine swallowed;" hence anodynes and hypnotics may, if called for, be safely and carefully given in this way in acute disease attended with anorexia, when their administration by the mouth would have the very grave inconvenience of tending to interfere with the digestion of even the simplest food; and, in using morphia at least, there is far less tendency to rapid and large increase of dose. Dr. Clifford Allbutt(c) believes that the effects of morphia injected subcutaneously in dyspepsia, heart diseases, local inflammations, rheumatic gout, insanity, and many other disorders, "are greater than we dream of as yet, and show that its power is something far wider in its bearings than we can at present formulate or, indeed, conceive." To himself and his colleague, Mr. Teale, who have both used the hypodermic syringe very largely, "it seems quite clear that morphia given subcutaneously has some power profoundly to modify the nervous system in such a way that it must become a prominent remedial means in all disorders where the nervous system is mainly at fault." Dr. C. Allbutt has used it with striking advantage and success in "atonic dyspepsia," and even in "acute gastric catarrh," and in diseases of the heart and great vessels. "From small and timid beginnings," he says, "I have gone forward with this marvellous remedy, until I find myself now justified in using it fearlessly in any form and in any stage of heart and aortic disease. No matter how swollen the limbs, no matter how agitated the pulse, no matter how blue and how tinged the face and lips, I now never hesitate to inject morphia, and scarcely ever fail, even up to the time of the dying agonies, to give relief decided enough to earn the warm gratitude of the patient." He gives it in doses varying from one-tenth to one-third of a grain, seldom using half a grain "except in such a case as intense pain from angina or intrathoracic tumour," and as to the class of cases in which it is useful he says, "it gives the most striking relief in angina with diseased coronary arteries — in neuralgic distress from intrathoracic tumour, and in mitral regurgitation. It is very valuable in small doses in so-called 'irritable' heart, whether this be due to weakness of the organ, or instability of its nerves. It is less useful in disease of the aortic valves, and I think it is less valuable in mitral obstruction than in mitral regurgitation. In aortic disease, however, when the heart is big and pumping, it gives much ease."

And, again, it has been said that "the advantages of morphia hypodermically administered over opiate medication by the stomach are such as would be *à priori* incredible, nor can they yet be fully explained." In particular "it is impossible to account for the far greater *permanence* of its action in relieving nerve-pain, which is so marked that its discovery has initiated quite a new era in the treatment of severe neuralgias. And the 'antiphlogistic' virtues which have been ascribed to opium would certainly, if ever, appear to be verified by the effect of hypodermic injections of morphia in threatening pericarditis, pleurisy, etc."

When Dr. Alexander Wood, of Edinburgh, introduced the hypodermic employment of narcotics in the various forms of neuralgia, he taught that the *localisation* of the remedy in the neuralgic part was essential to success; but three or four years

(c) *Vide* the *Practitioner* for 1869.

later Mr. Charles Hunter (to whom we are so largely indebted for our knowledge of the subject) enunciated the opposite principle of injection at an indifferent spot, and proved that it made no difference in rapidity and certainty of effect, and that inconvenient effects often followed injection of the painful locality.(d) The Hypodermic Committee, in conclusion 5, entirely support Mr. C. Hunter's teaching, and we believe that his views are generally agreed to among us. But abroad they have met with some powerful opponents. Shortly after his opinions had been made public, Professor Béhier read before the Academy of Medicine a report of fifty-three cases of neuralgic and other pains, in all of which cure or marked improvement had followed on the *local* injection of atropine, and he stated that he had repeatedly endeavoured to verify Mr. Hunter's statements, but had found injection at an indifferent spot altogether ineffective. Eulenburg also strongly supports the superiority of injection performed as near as possible to the painful spot, and specially refers to an instance of double *rheumatic* sciatica, in which local injection near a painful nerve produced a very much more decided and lasting relief of the pain on that side than on the other.(e) Dr. Anstie believes that for the purpose of relieving local pain, or cramp in a muscle, injection at an indifferent spot will do everything required, except in a limited number of cases; the exceptional instances being those in which the neuralgia is of old standing, and there has been a marked development of very painful points, with perhaps tissue changes as a secondary result; and especially including those cases in which neuralgia results from rheumatic affections of the nerve-sheath, as in Eulenburg's case of double sciatica. And he points out that in cases of neuralgia of an internal viscus, injection of remedies under the skin of the surface opposite the affected organ, as in Eulenburg's cases of gastralgia cured by injection in the epigastrium, cannot be called *local* injection, while his own experience has taught him that in the treatment of ovarian, cardiac, and gastric neuralgia, injection of anodynes under the skin of the arm produces relief as rapid and complete as from the most carefully localised injections near a painful superficial nerve.

Conclusion 4 of the Hypodermic Committee affirms that drugs introduced hypodermically have, as a general rule, a more rapid and more intense effect than have the same drugs where introduced by the mouth or by the rectum; and all our experience agrees with this conclusion. We may safely take, as a broad guide in practice, the rule, "that the physiological activity of nearly every substance which can thus be used is *three, if not four, times greater when it is given by the skin than when it is swallowed.*" The proper commencing dose for strychnia is $\frac{1}{120}$ of a grain of the sulphate; $\frac{1}{4}$ of a grain of morphia has once proved fatal, and often dangerous, $\frac{1}{6}$ of a grain in cases of severe pain, and $\frac{1}{8}$ or $\frac{1}{10}$ in mild cases, is a safe dose to begin with; and in using atropine hypodermically, it is safest that we should begin with doses of $\frac{1}{120}$ of a grain. "I have seen," Dr. Anstie writes, "uncomfortable atropism from the injection of less than $\frac{1}{100}$ grain. With a large experience of subcutaneous injection, I am enabled to say with confidence that $\frac{1}{60}$ or $\frac{1}{50}$ grain doses are what are best borne by the majority of persons, that sometimes, but not often, it is necessary to go as far as $\frac{1}{30}$ grain, and that not unfrequently patients will not bear as much as the $\frac{1}{60}$ without uncomfortable atropism." These examples of hypodermic doses will serve to illustrate the rule, which is one of general application.

Medicines administered hypodermically act with much greater rapidity than when given by the mouth, their effects coming on in a few minutes, or, not seldom, almost immediately; and this is in urgent cases an immense advantage, or, as it has been phrased, "is a quality which makes injected remedies of priceless value in certain emergencies." As an example of the value of the method in a case of the utmost emergency we may refer to a case of poisoning by tincture of aconite in which recovery took place under the employment of hypodermic injections of liquor ammoniæ after total absence of pulse for forty minutes.(f)

Besides the advantages already mentioned, "facility of introduction," which the method supplies, gives it special value in insanity and other conditions where medicine cannot be given or will not be taken by the mouth. But we have already outrun our space, and cannot enlarge on this point, nor can we give even a list of the remedies which have been used hypodermically, or of the diseases in which the method has proved useful. We have surely shown strongly enough the great value of the method, and we must be content with referring our readers for further information to the report of the Committee of the Medical and Chirurgical Society, to Dr. Anstie's paper, so freely used by us; to Dr. Clifford Allbutt's articles; to a valuable paper "On the Application of the Hypodermic Method to the Treatment of Syphilis by Mercury," by Dr. F. Brichetrau, in the *Practitioner*, vol. i., 1869; to a review of the second edition of Dr. Eulenburg's exhaustive monograph in the *Medical Times and Gazette*, vol. ii. p. 526, 1869; and to some papers now being published in our pages, "On Sciatica, its Immediate Relief and Rapid Cure by Hypodermic Injection of Morphia," by Dr. H. Lawson.

(d) *Vide* papers by Mr. Charles Hunter in the volumes of the *Medical Times and Gazette* for 1858 and 1859.

(e) "Die Hypodermatische Injection der Arzneimittel," Berlin, 1865.

(f) *Vide* case by Dr. B. Wills Richardson, *Medical Times and Gazette*, vol. ii. p. 709, 1869.

THE WEEK.

TOPICS OF THE DAY.

The introduction of the question of the Ballot into the Government Education Bill proved so attractive a subject of debate in the House of Commons on Thursday last week that it shelved for that night at least the Medical Act (1858) Amendment Bill. At the time we write the second reading of the Medical Bill stands nineteenth in the list of orders of the day for Thursday, the 21st inst. We are glad to see that throughout the country the Medical Profession are showing that they are not indifferent to the evils which will certainly accrue to the Profession and the public if the Bill in its present form become law. A large number of petitions have been presented from bodies of Medical Practitioners throughout the provinces, and we have reason to believe that the Medical members of the House of Commons are fully aware of the fact that not only is the Bill an imperfect one but that in its amended form it is positively mischievous. A further acquaintance with the provisions of the amended Bill intensifies our dislike to it. In a petition to the House of Commons from the Royal College of Surgeons of Edinburgh the attention of the House is called to another flaw of the Bill, which is only second in importance—if indeed it be second—to the omission of clause 18. The Edinburgh College points out that by clause 10 sub-section 3, taken in connexion with the last sub-section of clause 3, it is provided that a part of the examination for the licence to practise—viz., that in Anatomy, Physiology, and Chemistry—may be received from other boards than the three licensing boards under the Bill. The College suggests that "these important subjects form the very basis of rational practice, and are in reality as practical as the so-called practical subjects of examination; that to allow them to be examined on by other boards than the three statutory licensing boards is to leave open numerous portals of entrance to the Medical Profession as regards these most important subjects, and thus to diminish the guarantee for uniformity and efficiency which the three statutory boards are calculated to afford; and further, to render supervision of the licensing examinations by the Medical Council less easy and efficient, and more costly." The College, therefore, prays that the third sub-section of clause 10 and the last sub-section of clause 3 be omitted. The

same point is urged in an able letter, which has been printed and circulated by Dr. Rawdon Macnamara, on the Bill. Dr. Macnamara's strictures on the part which the universities have taken in procuring the omission of clause 18 seem to us unanswerable. All that can in reason be pleaded for is, that the universities should reserve the right of granting, under strictly guarded provisions, honorary Medical degrees to distinguished men who may not wish to enter on Medical practice, although engaged in furthering the progress of Medical science. This is the only reservation of privilege which they have a right to expect should be conceded. They may suffer, it is true, pecuniarily by being deprived of their right of licensing to practise, but they cannot suffer more than corporations which have been hitherto supported by Medical examinations alone; whilst the universities examining in divinity, laws, engineering, and other branches of knowledge, have still the power of growing rich by degrees. Dr. Macnamara coincides with our own opinion that a clause saving the privileges of the universities in the matter of purely honorary Medical degrees might, without much harm, be introduced into the Bill. But, he adds conclusively, if this be impracticable, "are the vital interests of the millions to be sacrificed to the decoration of the units?"

The *Gazette* of Tuesday last week, which contained the official announcement of the appointment of Dr. Burrows to be Physician Extraordinary to the Queen, announces that her Majesty has been pleased to appoint Sir Thomas Watson, M.D., F.R.S., to be one of her Physicians in Ordinary, in the room of the late Sir James Clark. Sir Thomas Watson has long been one of her Majesty's Physicians Extraordinary.

Mr. Quain has been chosen by the Council of the Royal College of Surgeons to represent the College in the General Medical Council. No better appointment could possibly have been made. Mr. Quain's Hunterian Oration, which was reported in this journal, and which he has since published in a separate form, affords sufficient evidence of the valuable light he is capable of throwing upon questions of general and Medical education. His experience as a Medical teacher has been of the largest, and his conduct of the affairs of the College of Surgeons during his tenure of its highest offices is a sufficient guarantee of the great value of the services which he will be ready to render in the work of educational and examinational organisation and reconstruction, which must sooner or later fall to the lot of the General Medical Council.

We learn with satisfaction that at the last meeting of the Council of the Royal College of Surgeons the Council unanimously passed a resolution to support the petition of the Fellows and Members of the College to the House of Commons in favour of the re-insertion of clause 18 in the Lord President's Medical Act Amendment Bill, or failing that, to obtain if possible the rejection of the measure.

Another report of Dr. Livingstone has been proved by Sir Roderick Murchison to be an invention. This time, however, the story was that Livingstone was alive and well. The report was said to be founded on a conversation held with Dr. Kirk, of Zanzibar, on March 14. Sir Roderick Murchison writes to the *Times* to say that he is in possession of a letter from Dr. Kirk of two months' later date which says nothing of Livingstone.

Mr. Solly has been elected to deliver the next Hunterian oration.

An important report on the liabilities of railway companies has been issued by a select committee of the House of Commons. The Committee is of opinion that trial by jury in these cases does not work satisfactorily, and in this the Medical Profession will agree with them. They propose that a special court should be established for the trial of these cases, which should possess adequate legal experience, and be assisted by competent engineers and Medical men. They propose also a scale of fair payments for damages which may be supplemented by insurances on very easy terms. The whole report seems to us to be founded on an equitable consideration of the claims of passengers, and the responsibilities of railway companies.

Mr. Ayrton has at last been induced to listen to common sense and science, and the mud is to be removed from the bed of the Serpentine. We suppose that the £28,000 necessary to fill up the bed so as to render the water safe for bathers will be forthcoming. The First Commissioner of Works has also, with the assistance of a Medical officer, been engaged in investigating the state of the water in the Regent's Park, and something is to be done to render it wholesome and safe. Mr. Harvey Lewis, who was to have brought the foul and offensive state of the water in the park before the attention of the House of Commons a few nights ago, consequently withdrew his notice. The vote on Mr. W. H. Smith's motion in reference to the Thames Embankment seems to have been of benefit to Mr. Ayrton and his friends.

Mr. Royes Bell has been appointed Assistant-Surgeon to King's College Hospital, in place of Mr. John Wood, who succeeds to the Surgeoncy vacated by Mr. Partridge.

The father of the Welsh fasting girl is sentenced to twelve months' imprisonment, and the mother to six months', with hard labour, for manslaughter. Thus ends this scientific investigation.

Dr. Hunt, of Hoxton House Asylum, has been appointed lecturer on Mental Diseases at the Charing-cross Hospital. The prizes at the Charing-cross Hospital will be distributed on Monday next, the 25th inst., at 4 o'clock. The Dean of Westminster is to take the chair.

THE HEALTH OF THE CAMP AT WIMBLEDON.

Our correspondent writes that the health of the Wimbledon Camp is exceedingly good. There have been no serious accidents, and but little diarrhœa. The condition of the latrines has neither given rise to inconvenience nor sickness. There have been a few sufferers from the heat, but on the whole the condition of the force has been excellent.

PROFESSOR PARKES AND COUNT WOLLOWICZ, M.D., ON THE EFFECTS OF ALCOHOL ON THE HUMAN BODY.

Professor Parkes and Assistant-Surgeon Count Wollowicz have communicated to the Royal Society a series of deeply interesting researches on the effects of alcohol on the human body. We need scarcely observe what a conflict of opinion there is, not merely between scientific men and the empirical world, but amongst scientific men themselves, on such questions as—What becomes of alcohol? Is it eliminated totally? If not, as it cannot be annihilated, is it oxidised? But if so, where are its proceeds to be found? What does it in disease? Does it increase or decrease action? To solve these and the like questions, our physiologists made experiment on a healthy and intelligent soldier, aged 28, of medium height and weight. The first step was to get him into a state of equilibrium on a simple and nutritious diet, every item in which was weighed, and its nitrogen estimated; and during the eight days which passed in this way the soldier drank watery liquids only. During the next six days, the diet being the same in all other respects, he took alcohol—on the first day one, on the second day two, four, six, and eight fluid ounces of absolute alcohol respectively. Then for six more days he took water only. Next, for three days, twelve fluid ounces of brandy daily (equal to six of absolute alcohol); and lastly, for three more days, water again. Thus during twenty-six days, other things being equal, the man was subject, during two periods of six and three days, to the action of two forms of use of the most potent agents. What was the result? What is the normal action of alcohol on a healthy man? Let us take each item. 1. The *weight*, estimated twice daily, was unaffected. 2. The *temperature*,

taken both in the axilla and in the rectum, was not appreciably altered, though what alteration there was was on the side of a slight increase—certainly there was not any lowering of the temperature. On the contrary, the patient on two days, whilst under the influence of eight ounces of absolute alcohol daily, had a slight feverish attack from chill which raised the temperature. Anyhow, our experimentalists contribute no support to the proposal to use alcohol as a reducer of febrile heat. 3. The marked effect of the alcohol was on the *circulation;* it increased the number of beats of the heart 13 per cent., and increased the mechanical work done by it one-fifth. 4. The *elimination* of nitrogen by the urine was unaffected; there was no evidence of increased combustion, or of retarded metamorphosis of tissues. 5. The same with reference to phosphoric acid. If, say our experimentalists, "the amount of this acid be any measure of the waste of nervous tissue (*which we do not affirm*), then these experiments do not warrant any assertion that alcohol interferes with such metamorphosis." 6. The *alvine* excreta are as little affected as the urinary. 7. The evolution of carbon by the lungs was not determined, for our authors preferred no determination to anything short of the accuracy attainable by Pettenkofer's method, which they were unable to employ. 8. On the subject of the *elimination* of alcohol by lungs, skin, urine, and bowels, our authors affirm the fact of some elimination, and seem inclined to lay more stress on the probability of Durand, Perrin, and Leroy's elimination theory than some other observers have conceded; but they are not able to say whether *all* the alcohol is eliminated or some destroyed. 9. A smaller quantity of alcohol in the form of brandy seems as potent as a larger quantity of absolute alcohol. 10. "One or two fluid ounces of absolute alcohol given in divided doses in twenty-four hours to a perfectly healthy man seemed to increase the appetite; four fluid ounces lessened it considerably, and larger quantities almost destroyed it." 11. The authors recognise the great practical use of alcohol in rousing a failing appetite, exciting a feeble heart, and accelerating a languid capillary circulation; yet they lay emphasis on the fact that by an overdose the appetite may be destroyed, the heart unduly excited, and the capillary circulation improperly increased. Lastly, they repudiate the idea of applying to wine and beer any inferences drawn from the behaviour of pure alcohol and brandy.

THE MERCHANT TAYLORS' CONVALESCENT HOME.

The Merchant Taylors' Company opened their Convalescent Home, at Bognor, on the Sussex coast, on the 5th inst., and the committee will meet every Tuesday, at 11 o'clock a.m., at the Company's Hall in Threadneedle-street, for the purpose of receiving applications for admission. The Home is for the reception and maintenance of patients in indigent circumstances, recently or about to be discharged from any of the Hospitals in or near the metropolis, and for such other cases amongst the poor of the metropolis as the committee may consider fit and proper objects for admission; but principally for those recovering from injuries and surgical operations. No cases of a contagious character will on any account be admitted, and for the present admission is restricted to males. John Abernethy Kingdon, Esq., has been appointed Surgeon to the Company for London, and each applicant will be examined by him, and on his reporting to the committee that the case comes within their rules, they will grant an admission for such a period (not exceeding one month) as they may consider necessary. The Company furnish the inmates with all they need, clothing excepted, but they expect the Hospital authorities will repay them the amount of railway fare, which for both journeys amounts to 5s. 6d. The rules laid down will be rigidly enforced, and any inmate disregarding them will at once be discharged. The Home is the property of the Company, and known as Fitzleet House. It is a spacious and airy mansion, standing in grounds of seven acres, which, being well timbered, afford ample shade. There are forty beds, which number, it is expected, will accommodate about 600 patients within the year. The intention of the Company being to perfect the work of the Surgeon, by giving rest, liberal and nourishing diet, and good air to those considered cured already, it is requested that no patients may be sent for admission who are not capable of managing for themselves, as there are no nurses attached to the Home.

THE CORONER FOR MELBOURNE.

We perceive by the *Australian Medical Gazette* that Dr. R. Youl, the city coroner for Melbourne, still persists in not employing the Medical Practitioners of Hotham to perform post-mortem examinations or to give evidence respecting the death of persons on whom inquests are held. His answer to questions and remonstrances was curt and not over-polite. The Practitioners of the district have waited upon the Solicitor-General, the Hon. B. C. Aspinall, who requested them to forward him a statement of the grievance in writing, with such a plan as they would propose for binding the coroner, but so that the public interests would not suffer. If he were satisfied with the suitability of the proposal, he would cause a regulation to be made, or a new clause added to the Act, if necessary.

THE MICROSCOPE SUB-STAGE ILLUMINATION.

A member of our Profession, who is already known as the inventor of the calliper micrometer, has introduced a new method of sub-stage illumination which it is desirable should be extensively known, not only on account of its simplicity and most remarkable efficiency, but also on account of its inexpensiveness. Dr. John Matthews does away entirely with the "condenser," and in place of it makes use of one of the achromatic objectives. It must be so mounted as to send the whole of its bundle of rays at angles varying with the requirements of any given case. He finds it best to work at angles varying from 25° to 65°. The cost of adaptation need not exceed 25s. The excellence of the invention lies in this, that the observer has thus at his command a bundle of achromatic rays all in one azimuth, which he can throw accurately in any direction he pleases. It is not possible to complain of Dr. Matthews when he explains "definition" to be "the power of correct appreciation of light and shade in reference to form, structure, and colour," or when he adds that "its completeness depends mainly upon the angle at which light is incident on or passes through an object, as well as upon the amount and quality of that light." He illustrates the principle by the fact that astronomers observe the moon in her phases instead of at the full, knowing that in the former case her surface has more of appreciable detail. His objection to the various stops and existent arrangements for what is called "oblique illumination" is, that the rays are either axial, and so throw no satisfactory shadow, or, if oblique, are mostly so in *every* azimuth, so that they must in a great degree neutralise the operation of each other. We can testify to the admirable results of Dr. Matthews's method.

CONSUMPTION IN AUSTRALIA.

The *Melbourne Age* of January 29 contained long leading articles on the subject of sending consumptive patients from England to Melbourne. It asserts that sending patients out in the advanced stages of the disease is a cruel imposition on the patients, and a gross injustice to the climate of the country. These patients, whatever their positions in life, speedily fall victims to the insidious disease, and thus swell the death-rate from consumption in Australia beyond its real ratio. It refers to the death of Mr. E. Denison, who had taken the voyage for

his health. The *Age* remarks that repeated instances occurred where somebody who had been threatened with consumption had been advised by his Medical attendant to remove to Melbourne, that he had accordingly gone thither, and that the return mail of a few months later had brought back the news of his death. Publicity given to these cases would, in the long run, produce the impression in Europe that Melbourne and the region of Australia in which it is situated are most insalubrious places for a person suffering to the least extent in his health to go to if he wishes to prolong his days. Statistics would go to confirm this. But what was the reason? Melbourne and Victoria get far more than their proper share of consumptive patients at the point of death located within their bounds. "Persons," says the *Age*, "who have no further chance of recovery from phthisis, who are in an advanced stage of the disease, are sent out here, are thus exposed to the discomforts and sufferings of a long voyage, are separated from their friends at the period when they most need their care and attention, and come amongst strangers to die." This, too, under Medical advice! The *Age* denounces this system, and says that

"Any person in an advanced state of phthisis only hastens the progress of the disease and the speedy arrival of his death, by coming to a warm dry stimulating climate like this of Melbourne. To obtain any benefit from the Victorian climate, the patient should only be in the earliest or incipient stage of consumption. And even then all progress towards arresting the disease and effecting a cure will depend on his leading altogether an open-air life, and avoiding sedentary and indoor occupations. By acting strictly in accordance with this course of proceeding, the patient threatened with consumption, greatly aided and sustained as he will be by our climate, in his comparative state of vigour, may fairly expect to recover his health. But once the tubercular disease has been developed, London and Melbourne are both alike to him. Nothing can avert his fate. His coming here possibly may hasten it. And this is what the Faculty and the public in the United Kingdom as well as in Australia must bear in mind, in order that injustice may not be done to this most healthy region of the world."

The subject has lately again been commented upon by the *Age* in its issue of April 23 in consequence of an elaborate paper having been read before the Medical Society. The *Age* learns with satisfaction that, while the few who listened to the effusion objected to some of the conclusions, they agreed in opinion that, whatever the effect in advanced stages of the disease, in the earlier periods a voyage to and fro, or a sojourn in that country, was conducive to recovery or arrest of the ravages of the disease. This, then, is the result of the whole inquiry, and should be acted upon.

THE EPIDEMIC OF SMALL-POX AT PARIS.

In continuing our weekly reports on this epidemic we cannot do better than furnish an abstract of M. Besnier's report on the prevailing diseases of Paris during April and May, being a continuation of his former reports addressed to the Paris Hospital Medical Society. He observes that the Medical constitution of Paris continued exactly the same during these two months that it had been during their three predecessors, the same diseases predominating, variola still increasing, and the entire mortality being excessive. Thus a pathological uniformity has prevailed not influenced by the ordinary seasonal conditions. This anomalous constitution has also coincided with an anomalous meteorological condition, but M. Besnier protests against explaining the one exclusively by the other, the conditions whereon the prevalence of diseases depend being far too complex for this. Examining the principal diseases in detail—for example, phthisis, typhoid, bronchitis, pneumonia, etc.—he finds their numbers have been well-nigh identical each month, variola, prevailing epidemically, being the only disease that has continued progressively to increase. Contrary to what has always been observed in former years, the general mortality has shown no sign of diminishing during April and May, even when the cases of small-pox are not counted. Indeed, the number of cases of diseases of the respiratory organs admitted into the Hospitals were, in spite of the gradual elevation of the temperature, considerably more numerous in May than in January, there having been 1129 cases with 394 deaths during January, and 1526 cases with 489 deaths in May.

Passing over M. Besnier's account of diphtheritic and rheumatic affections we come to the portion of his report which relates to small-pox. He furnishes a table of the cases admitted into the Hospitals and Hospices from January 1 to June 30. At the first date there remained 162 cases and 6091 were admitted. Of the 6253 cases 4383 were dismissed, 1023 died, and 847 remained in Hospital, giving a mortality of 18·92 per cent. on the dismissals and deaths or 16·36 including the remaining cases. Contrary to the experience derived from former epidemics this one in place of diminishing during the verno-estival period has increased, rising progressively from 83 deaths in Hospital in November to 792 in May—a rise which, as our readers are aware, has continued ever since. All the *arrondissements* of the town have suffered from excessive mortality from smallpox, but in extremely variable degrees. This varying distribution is exhibited by M. Besnier in an elaborate table. The number of cases existing in civil practice not being known, the relative mortality in each arrondissement cannot be stated; but the average relative mortality in the combined Hospital returns is stated to be 19 per cent.—this varying greatly in the different Hospitals, being as high as 69 per cent. at the Children's Hospital and as low as 14 per cent. at the Charité and Necker. One of the most remarkable features of the present epidemic has been its mildness among the soldiery of the capital. The number of soldiers attacked has been very slight indeed, and this their Medical officers naturally attribute to the great care in revaccinating them when they join their corps. Indeed, a very large proportion of the cases are found to occur in soldiers who had been able to evade this practice. Still there remains the fact that small-pox is still extraordinary mild when it attacks soldiers even when they have been neither vaccinated nor revaccinated. Thus 93 cases in non-revaccinated soldiers only furnished 3 deaths; and still more extraordinary, in the midst of this most fatal epidemic, there occurred but 2 deaths among 11 soldiers who had never been vaccinated at all! Thus soldiers living in the same medium but in a different social state, have a mortality of only 3·49 per cent., while civilians are dying at from 15 to 23 per cent. The different Hospitals or asylums, whether for aged persons or children, have not had any small-pox developed within their walls, although cases have been introduced from without for treatment.

M. Besnier has very carefully investigated the subject of contagion, and finds that only in one-fifth of the cases most carefully interrogated could he ascertain any proof of direct or manifest contagion.

"In small-pox, as in other diseases which are at the same time epidemic and contagious, contagion alone furnishes no explanation whatever of epidemic generalisations and exacerbations; for even if we were to admit that the four-fifths of the cases of which we cannot discover the contagious origin, still have such an origin which eludes our investigations, we should be driven to admit that the contagious character of the disease varies in intensity at different epochs, which would really be to throw no light whatever on the question. It is a subject for further study, the elucidation of which can only be accomplished by additional observation, absolutely devoid of these preconceived ideas which, up to the present time, have almost always perverted it."

Another interesting point is under investigation by the Assistance Publique—viz., the number of cases of variola arising within the walls of the Hospitals (it will be recollected that they all admit cases of small-pox). From January 1 to May 31 411 such appeared. But assuming the period of incubation of variola to be from 12 to 15 days, 233 of this number, in which it appeared prior to the 10th day after

admission, cannot be imputed to residence within the Hospital. There remain then only 178 cases, in 84 of which the symptoms appeared between the 10th and 20th day, in 51 between the 20th and 30th, in 23 from the 30th to the 50th, and in 20 after the 50th day. But, strange to say, in both these categories the mortality was less than the mean of small-pox, being 17·16 per cent. in cases appearing prior to the 10th day after admission, and 16·75 in cases occurring subsequently. During the before-mentioned dates 4544 cases of small-pox were treated in the Hospitals, and the number of cases occurring in patients admitted for other causes being 411, it results that they constituted 9·04 per cent., or 1 in 11·06; while if the 178 cases only are counted which really originated in the Hospitals, the proportion is diminished to 3·96 per cent., or 1 in 25.

"One cannot but be struck with the interest attaching to these truly unexpected results, especially if we compare them with what takes place during epidemics of cholera. In 1866, for example, at the Lariboisière, where separation was absolutely practised, cases originating in the Hospital rose to more than 20 per cent., and at the Hotel-Dieu they attained 30 per cent., with a frightful mortality. Is it not evident that, according to current ideas relating to contagion, the reverse of this ought to have taken place, variola being, with justice, regarded as far more contagious than cholera? However this may be, the conclusion, at all events provisionally, to be drawn from these facts is, that in the time of epidemic small-pox, isolation is an excellent means of attenuating the ravages of the scourge; but that it would be a complete illusion to expect from such a means to obtain the cessation of an epidemic in the midst of such an agglomeration as at Paris. For small-pox the true prophylaxis consists exclusively in revaccination; and for cholera, when once imported, there is no prophylaxis beyond the provisions of general hygiene."

The mortality from small-pox for the week ending July 16 shows a slight diminution, being 225 deaths in a total mortality of 1150.

FROM ABROAD.—THE ACADÉMIE DES SCIENCES.

In relation to the late election of a Corresponding Member in the Section of Zoology, to which we referred last week, the *Revue des Cours* observes that when the position of the candidates on the list was debated in the section, MM. Quatrefages and Milne-Edwards wished to place Charles Darwin on the first line, but were opposed by MM. Emile Blanchard and Robin, "who energetically objected to the creator of 'transformism,'" and substituted the name of Brandt, of St. Petersburgh. The point was decided by M. Longet, who sided with the latter party, and Mr. Darwin was consigned to his alphabetical position in the second line. That this was not generally approved of by the Academy may be seen from the fact that on the election the ballot had to be taken twice before the requisite majority could be obtained—a thing of very rare occurrence in the election of Corresponding Members. On the first occasion, Professor Brandt obtained 19, and Mr. Darwin 16 votes, and on the second occasion Professor Brandt obtained 22.

"We shall make no comments on this election, as the struggle has again to recommence. The Zoological Section has also two other vacancies. That caused by the death of Purkinje, of Prague, is about to be filled up, and MM. Milne-Edwards and Quatrefages again energetically support Darwin, while Blanchard, Robin, and Longet place Bischoff, of Munich, on the first line, he having, some thirty years since, published some remarkable investigations on embryology. The discussion on the respective claims already commenced in the Academy will be resumed at the next sitting. The real object of the debate is not, on the one hand, the defence, and still less the adoption of transformism, and, on the other, the eulogium of certain investigations. It is to know whether the transformists are to be ostracised in the persons of Messrs. Darwin and Huxley. This is what must be kept in sight."

At the annual meeting of the Academy, under the presidency of Claude Bernard, on the 11th inst., M. Dumas delivered one of his eloquent and impartially appreciative eulogiums on the celebrated chemist Pelouze. Even by those uninterested in this branch of science, the discourse will be perused with the highest interest. At the same meeting the prizes were distributed. 1. The Monthyon Statistical Prize was adjudged to M. Chenu for his "Medico-Chirurgical Statistics of the War of Italy." And never was prize better deserved for an elaborate and fearless exposure of, not only the actual, but the unnecessary losses that occured in that conflict. For all those who repine at the condition of our own Medical Department, and think that perhaps that of the French is better organised, we can only refer to the above work and to its author's subsequent work on the Crimean war. They will there find a fearful account of shortcomings, mal-administration, and neglect of Medical advice and warnings which would be incredible if not authenticated. 2. For the Academy Prize of 5000 fr. on the application of electricity to therapeutics there were eleven candidates, none of whom were deemed entirely worthy of it. To MM. Legros and Onimus, however, 3000 fr. have been adjudged for their valuable investigations on the special actions of electrical currents on the nerves, and 2000 fr. have been given to M. Cyon for his electro-physiological researches. 3. The Prize of Experimental Physiology has been given to M. Famitzin, for his researches on the influence of light on plants; and an honourable mention has been accorded to MM. Tripier and Arloing for their experimental researches on the sensitive nerves. 4. The Monthyon Prize in Medicine and Surgery of 3000 fr. has been adjudged to M. Junod for his work on Hæmospasia, or Treatment by Rarefaction of the Air. A prize of 2000 fr. was also given to Professor Luschka, of Tübingen, for his anatomical researches, and another to the same amount to MM. Paulet and Sarazin for their work on topographical anatomy. Honourable mentions with 1500 fr. were awarded to M. Roger for his researches on chorea, rheumatism, and diseases of the heart in children; to M. Maurin for his Typhus among the Arabs; to M. Knoch, of St. Petersburgh, for his monograph on the *Botryocephalus latus*. The Academy also expressed its approval of M. René Blache's diseases of the heart in children; M. Roudanowsky's photographic studies of the nervous system; and M. St. Cyr's investigation of Tinea favosa in the domestic animals. 5. The Breant Prize, for which there were twenty-five candidates, has been adjudged to M. Fauvel for his work on the etiology and prophylaxis of cholera—a production characterised as of the highest importance. 6. The Barbier Prize was divided between M. Mirault for his work on the occlusion of the eyelid in the treatment of ectropion, and M. Stilling for his improvements in the operation of ovariotomy. 7. The Godard Prize was given to Professor Hyrtl, of Vienna, for his work on the genito-urinary organs of fish.

PARLIAMENTARY.—SALE OF POISONS (IRELAND) BILL—PUBLIC HEALTH (SCOTLAND) SUPPLEMENTAL BILL—THE MEDICAL ACT (1858) AMENDMENT BILL—THE MEDICAL OFFICERS' SUPERANNUATION BILL—THE CONTAGIOUS DISEASES ACT REPEAL BILL.

On Thursday, July 14, the Royal assent was given to the Sale of Poisons (Ireland) Bill.

On Monday, in the House of Lords, the Public Health (Scotland) Supplemental Bill passed through committee.

In the House of Commons,

Petitions in favour of direct representation of the Medical Profession in the Medical Council were presented by Mr. Neville-Grenville, from Medical practitioners of Langport; by Mr. Wheelhouse (3), from the registered Medical practitioners of Leeds and neighbourhood: by Mr. C. Gilpin, from Medical practitioners in Northampton; by Mr. Hibbert, from Oldham; by Mr. Ormsby Gore, from Ellesmere and Oswestry; by Mr. Pease, from Mr. R. T. Manson, L.R.C.P. (Edinburgh), etc., and other Medical men; by Mr. Gregory, from Tuam; by Mr. Dodson, from Hurstpierpoint; by Sir John Hay, from Stamford and its neighbourhood; by Lord Eustace Cecil, from the neighbourhood of Saffron Walden; by Mr. W. Barrow Simonds, from Winchester; by Mr. Lee, from Kidderminster; and by Mr. Cubitt, from Cobham.

On Tuesday in the House of Lords, their lordships having gone into committee on the Medical Officers' Superannuation Bill, the Marquis of Salisbury explained that its object was to extend the Medical officers who had not devoted their whole time to the parish the power of retiring on a pension, with the consent of the guardians, if 60 years of age or infirm. This was at present confined to officers who had given their whole time to the parish, but the former were in general a far higher class, whom it was desirable to encourage in taking these offices. Moreover, the poor were injured by the continuance in office of infirm or aged men. In order to prevent corrupt arrangements, and in deference to the objections of his noble friend (the Duke of Richmond), he would propose an amendment providing that a person desiring a pension should satisfy the Poor-law inspector or some person appointed by the Poor-law Board as to the grounds of his retirement.

The Duke of Richmond objected to the principle of pensioning persons who had not given their whole time to their duties, but as the amendment partially met his objections, he would not press his opposition.

The amendment was then agreed to, and the Bill passed through committee.

The Public Health (Scotland) Supplemental Bill was reported as amended.

In the House of Commons,

Petitions praying for certain amendments in the Medical Act Amendment Bill were presented, by Lord George Cavendish, from Medical Practitioners in and near Bakewell; by Mr. Hughes, from Frome; by Mr. S. G. Smith, from Aylesbury; by Mr. Waterhouse from Pontefract and neighbourhood; by Mr. G. Milles, from Faversham; by Mr. Welby, from Spalding; by Mr. Birley, from Manchester; by Mr. A. Johnstone, from W. Cooper, M.D.; by Mr. Wheelhouse, from Leeds; by Mr. Graves, from the Council of the Lancashire and Cheshire branch of the British Medical Association; by Mr. J. White, from Brighton; by Lord R. Grosvenor, from Mold; by Mr. Norwood, from Hull; and by Mr. Lyttelton, from Halesowen.

Petitions against the Medical Act (1858) Amendment Bill were presented, by Mr. Gore Langton, from Langport and North Curry; by Captain A. Hood, from Wellington; by Mr. Macfie, from Great Neston; and by Mr. Hughes, from the Bishop of Exeter, and others.

On Wednesday in the House of Commons, petitions praying for amendments in the Medical Act (1858) Amendment Bill, were presented by Mr. R. Dalglish, from the Faculty of Physicians and Surgeons of Glasgow; by Mr. C. W. W. Wynn, from Practitioners at Newton and Llanfyllin; by Mr. Wheelhouse, from Ripon, Leeds, and neighbourhood; by Mr. Barclay, from Medical Practitioners of Taunton and neighbourhood; by Mr. Tipping, from Stockport and its neighbourhood; by Mr. Birley, from the Medico-Ethical Association of Manchester; by Mr. Raikes, from Dr. Waters, ex-president of the British Medical Association; by Mr. Lyttelton, from Bromsgrove; by Mr. S. Holland, from Medical men; and by Colonel Stuart, from Cardiff.

Petitions against the Medical Act Amendment Bill were presented by Sir W. Hutt, from various members of the Medical Profession of Gateshead; by Mr. W. E. Forster, from Medical Practitioners of Bradford and its neighbourhood; and by Mr. T. B. Potter, from Mr. George Brown, Rochdale.

The Contagious Diseases Act Repeal Bill was discussed *in camerâ*. When the order for resuming the adjourned debate was called on, Mr. Craufurd again drew attention to the presence of strangers, upon which the gallery was cleared. The reporters were re-admitted at a quarter before 6 o'clock, and found that the debate had been further adjourned.

LIME FRUIT JUICE.

We have received from the Sturges' Montserrat Company a specimen of their lime fruit juice, which seems to us exceedingly pure and good. It is said to be pressed from ripe, prime fruit, and to be free from all adulteration. It has fully the flavour of the lime fruit, and contains between 7 and 8 per cent. of citric acid. Well corked, it will keep without the addition of alcohol. When freely diluted with water, it makes a not disagreeable summer drink, and we have no doubt that it is greatly superior to most of the lime-juice sold for sea-going consumption.

THE ANNUAL REPORT OF THE POOR-LAW BOARD.

No. III.

Expenditure on Poor Relief.

Among the most valuable portions of the report are those which relate to the expenditure on poor relief, to the increase in that expenditure, and to the causes of the increase, so far as they can be traced. To our readers these questions must be directly interesting in so far as they exhibit the effect on poor-rates resulting from the increased interest shown in the treatment of the sick poor; and indirectly inasmuch as we have all to bear the burdens imposed in consequence of improved Hospital accommodation, an additional nursing staff in workhouses, and the supply of drugs and Medical and Surgical appliances at the cost of unions and parishes.

The following table shows the comparison of the expenditure for 1869 with that of the three years immediately preceding:—

Parochial Years.	Expenditure for Relief of the Poor.	Increase on immediately preceding Year.	Increase per cent.	Rate per Head on Population.	Increased Rate per Head.
	£	£		s. d.	s. d.
1865-66 .	6,439,515	—	—	6 1¼	—
1866-67 .	6,959,841	520,326	8·1	6 6¼	0 5
1867-68 .	7,498,061	538,220	7·7	6 11½	0 5¼
1868-69 .	7,673,100	175,039	2·3	7 0¾	0 1¼

Increase of expenditure on poor relief does not, however, necessarily mean an increase in pauperism—as we shall see from some of the figures in the report—or, at all events, not invariably a proportionate increase. For instance, in the year 1852 the number of paupers relieved was 916,000, in the year 1869 the number was 1,018,000, whilst in the former year the expenditure was £4,900,000, as against £7,700,000 in the latter year; showing an increase of but 11 per cent. in the number of paupers relieved, and of 46 per cent. in the expenditure. So, again, the number of paupers in 1867 was about the same as in 1851, the numbers being 930,000 against 940,000, but the cost in 1851 was £5,000,000, and in 1867 £7,000,000, or an increase of exactly 40 per cent. These figures point unmistakeably to the fact that the charge for poor relief has increased in a much higher ratio than the number of paupers. Further examination shows that a pauper is at the present day a very much more expensive item in the nation's accounts than he was twenty years ago, and suggests grave thought of what we should be likely to reach, were the cost of his housing and feeding to continue on the same progressive scale. But the Report gives us a ray of comfort in this particular, as the Poor-law Board, speaking of the figures given in the table above, find themselves able to say—"These figures, though in themselves unsatisfactory, ... indicate that the ratio of increase, which for several consecutive years we have had to deplore, has at last been checked. The increase in the cost of relief in each of the two years immediately preceding was upwards of half a million sterling, whilst in the year 1868-9 it was under £180,000. The last half-year in which there was an increase in the chief items of poor-law expenditure—namely, in-maintenance and out-relief—was that ending Michaelmas, 1868; the half-years ending respectively at Lady-day and Michaelmas, 1869, show for the first time for some years a decrease."

Again, if our pauper of 1870 is very much more expensive than his ancestor of 1850, we have the satisfaction of being able to believe that, whether we have succeeded or not, we have certainly endeavoured to make him very much more contented and comfortable when sick. To this cause must be in part attributed the increase in expenditure, not the least heavy charge on the poor-rate at the present day being that for the treatment of infirmary cases. The report adverts to this as one of the causes of increase, and speaks as follows on the subject:—

"What may be called the Hospital branch of Poor-law administration is of comparatively recent origin. Workhouses, originally designed mainly as a test for the able-bodied, have, especially in the large towns, been of necessity gradually transformed into infirmaries for the sick. The higher standard for Hospital accommodation has had a material effect upon the expenditure. So again it has been considered necessary to attach to workhouses separate fever wards; and wherever it was possible these wards have been isolated by the erection of a separate building."

Referring to the general causes which have operated to increase the cost of relief, the report points out that "it must be remembered that, apart from any increase in the number of paupers to be relieved, the expenditure may be enhanced—(1) By a more liberal scale of relief in money or food. (2) By improved accommodation in workhouses, schools, infirmaries, and asylums. (3) By a rise in the prices paid for provisions, clothing, etc., and buildings. (4) By increased salaries to workhouse officials, Medical officers, and the general staff employed in the administration of the law."

The broad fact remains that, partly in consequence of dear bread, but mainly in consequence of still more influential causes, the ratepayers have had to pay for the maintenance of the same number of poor during the last few years 40 per cent. more than they had to disburse twenty years ago.

Another item, the cost of lunatics maintained in asylums, has increased from causes altogether independent of an increase of pauperism, and is to be attributed chiefly to the anxiety which has been evinced of late years to secure protection and scientific treatment in asylums for persons who would formerly have been retained in workhouses or relieved as out-door paupers; of course at a very much less cost, but also with less comfort and chance of recovery.

The expenditure for salaries and rations of officers has also largely increased, but this the report attributes in part to the appointment of paid nurses, which is characterised as "a great improvement in Poor-law administration." The only wonder is that it should have taken those charged with the administration of indoor relief so many years to realise the necessity for this "great improvement."

The expenditure on workhouses caused by the general demand for improved accommodation has also caused a large increase; in fact, in this particular, we now seem to be running the usual course of extremes from which no national reform is separable, and the expenditure in this direction would have been larger but for the restrictive power of the central board. The report says:—

"The extreme parsimony displayed by boards of guardians of the older school has in some of the larger unions given way to a desire to conduct all the duties devolving upon the guardians upon a somewhat grand and liberal scale. The guardians of a Lancashire union, for instance, who have built one of the best infirmaries in the kingdom, and conduct it with a numerous staff of sisters, a few years ago connected the workhouse with the main offices, distant about three miles, by a telegraph line, and lately they were found to be erecting a greenhouse to supply the infirmary with flowers.

"In many cases the Poor-law Board are now compelled to intervene in order to check the outlay which the guardians would be willing to incur in the more ornamental part of the various structures which they propose to erect.

"In a union in the North of England the guardians refused to omit from the plans for a new wing of their workhouse rooms which were practically unnecessary, on the plea that they would otherwise be unable to carry out a three-storied elevation.

"In another union we had to object to the elevation as being of a more ornamental and costly character than necessary, particularly to the addition of a tower; and granite columns and terra-cotta enrichments to the front elevation had to be struck out.

"In another instance we refused to sanction proposals to introduce encaustic tile paving in the entrance-hall, moulded Portland stone stairs to the chapel, an elaborate coffered ceiling to the board-room, decorated ceilings to the committee-rooms, Parian cement pilasters and other decorations in the covered way to the chapel, and Portland stone decorations to the front of the building."

On the other hand, the board, as appears from the report, have not unfrequently intervened with a view to causing such additions to workhouse infirmary accommodation and to the staff of officers as their limited powers of compulsion would enable them to require, and in many unions it has been necessary to exercise very great pressure to induce the guardians to carry out the most needful reforms, every kind of expense being strenuously resisted. A few years ago, however, a report of the Poor-law Board would have told us how much such and such reforms were needed, and how sorry the Board were that, owing to the jealousy of "centralisation" and the apathy of the public, they were powerless to secure those reforms. Now, "the old order changeth, giving place to new," and it is refreshing to find that the influence of the central authority has to be exercised in a contrary direction. This is as it should be—let the guardians, the officers, and the ratepayers unite to do their best for the poor, and let the Poor-law Board control and direct their efforts, supplying, by legislation and otherwise, the machinery requisite to protect society from mendicancy and imposture.

The report gives a comparative table showing the cost of poor relief for each year from 1834 to 1869, with the rate per head on the estimated population, and the rate in the pound on the annual rateable value of property in the years 1841, 1847, 1850, 1856, 1866, and 1868, respectively. We have not space for the insertion of the comparative statement, but we commend it to the attention of such of our readers as have the report by them.

The board go at greater length than we can follow into a consideration of the various causes of the increase in poor-rates, and conclude this portion of the subject thus:—

"To sum up the question of expenditure, it may be said that during the last few years the higher price of corn, the higher standard of efficiency, the increased sanitary requirements, the growing number of the more costly classes of paupers—namely, sick persons and lunatics, and the augmented numbers and increased salaries of officers, have together raised the cost of poor relief by 40 per cent. So far as this increase is due to dear corn, it appears that in the year 1869-70 a reduction will occur; the other causes are more or less permanent, and can only be counterbalanced by a reduction in the number of paupers."

Let us hope that in the next report we may be introduced to a plan for securing this desirable end.

(To be continued.)

REVIEWS.

Notes on the Comparative Anatomy of the Gall-bladder and Biliary Ducts. By Dr. Paulet.(a)

A very slight examination of the biliary apparatus in different genera of the various classes of the Vertebrata suffices to show that, in a certain number of animals, there is no gall-bladder, and that consequently in these cases the bile is never kept in reserve, but flows continuously into the digestive tube.

In the class of mammals, a gall-bladder is found in the man, in all the quadrumana, the cheiroptera, the carnivora, the insectivora, in nearly all the edentata, and in all marsupial animals. Amongst the pachydermata, it is absent in the horse, the elephant, the rhinoceros, the daman, the tapir, and the peccari, while it exists in the pig. While it is absent in the lama and the camel, it is present in all the true ruminants, with the exception of the cervidæ or stags. In some of the rodents it is present, while it is absent in others, as the rats (hamster, echymys, grey rat, and field mouse). It is, moreover, absent in the carnivorous cetacea, such as the dolphin and the porpoise, and in a single species of the herbivorous cetaceans, the *rytina* (recently extinct).

In the class of birds, the gall-bladder is absent in the African ostrich, the parroquet, the cuckoo, the pigeon, the pintado, and all the ramphastadæ, except the callao. It exists in all the batrachians, and in nearly all the reptiles. It is, however, not found in the black turtle, and it is sometimes absent in *Lacerta agilis* and *vivipara*.

Finally, if we except the lampreys, lump-fish, *Pleuronectes radiata*, the Nile perch, the *Scomber leuciscus* and the *Labrus turdus*, all other species of fishes are provided with a gall-bladder; and in some of them this reservoir is enormous, as, for instance, in certain scomberoids, where it extends along the whole length of the digestive tube.

Under this variety of conditions is it possible to draw any general rule regarding the existence or the non-existence of a gall-bladder in the higher animals? Can we admit with Cuvier that this reservoir is found in those animals whose meals are separated by a certain interval, while it is absent in those which are perpetually eating, and whose bile flows continuously into the intestine? The almost constant presence of a gall-bladder in the mammalian carnivora, in the reptiles, and in fishes, which almost always feed upon living prey, is opposed to this view, which, however, has a certain amount of truth for its basis. With regard to diet, what difference is there between that of the horse in which there is no gall-bladder, and the ox and the sheep in which it is present? And why should the deer, which in this respect resembles the horse, differ from

(a) Extracted from the article *Biliaires (anatomie)* in vol. ix. of the Dictionnaire Encyclopédique des Sciences Médicales. Paris: Masson. London: Williams and Norgate.

the other ruminants? There are, moreover, other facts which directly contradict Cuvier's law. Two allied and almost identical genera, the aye-aye and the unau (the common and the two-toed sloths), differ in this respect, the latter alone being provided with a gall-bladder. Lastly, the gall-bladder may be sometimes absent, and sometimes present in animals of the same species; thus, Owen found it absent in two male giraffes, and present in one female; while Solly and Ladvocat did not meet with it in a female giraffe. Hence, the only conclusion to which we can arrive is that the reason for the existence of this diverticulum has not yet been detected, and that the retention of the bile in a special reservoir is not absolutely indispensable to give to that fluid its necessary qualities.

When the gall-bladder is absent the liver pours its secretion directly into the intestine through several hepatic canals, which sometimes unite into a single duct before reaching the duodenum, but in other cases remain distinct during their whole course. In the latter case there is usually one canal for the right and one for the left lobe of the liver. In fishes these two canals commonly unite, while in birds they almost always remain separate.

Whenever a gall-bladder exists it always lies to the right of the suspensory ligament. It is sometimes found, as in many reptiles, imbedded and concealed in the structure of the gland, while in mammals, birds, and serpents it is placed on the surface of the liver, where it is retained in position by a fold of peritoneum. In the rabbit, in consequence of the presence of a meso-cyst, it is in a floating position, while in certain birds it is completely free, and merely suspended by the biliary canals. All these different arrangements are met with in the class of fishes.

The presence of the gall-bladder necessarily implies a communication between this reservoir with the biliary ducts on the one hand, and with the intestinal tube on the other. There are, however, marked differences in which the afferent and efferent biliary ducts are arranged.

1. The two biliary canals proceed from the liver—that from the left lobe may empty itself into the duodenum, while that from the right passes either directly into the neck of the gall-bladder or by means of a cystic duct. This arrangement is observed in many birds and some reptiles. The bile is then poured into the intestine by two openings, which are sometimes close to one another, as in the owl, vulture, peacock, pheasant, domestic fowl, and some other birds, and in other cases are widely separated, as in certain aquatic birds and the boa constrictor.

2. Neither of the ducts proceeding from the liver may enter directly into the intestine, but may pass directly into the cystic canal, or into the neck of the gall-bladder, and thus the whole of the bile may be poured into the digestive canal by a single tube.

Lastly, in certain mammals, as the ox, sheep, dog, otter, hedgehog, hare, and kangaroo, independently of the hepatic duct or ducts which enter the cystic canal, there exist true hepato-cystic canals proceeding directly from the liver to the gall-bladder. But in all mammals the bile is invariably poured into the intestine by only a single aperture.

The position of this opening in relation to the pylorus is extremely variable in different species. In man the bile penetrates into the second portion of the duodenum at about 10 or 15 centimetres below the pyloric sphincter; and nearly the same relation seems to exist in the quadrumana. In other animals the biliary aperture is much nearer to the pylorus. In the common seal it is only 13 millimetres distant, and is even still nearer in the weasel, the guinea-pig, and in the dormouse; while in the porcupine the distance is so small as to allow the bile to run freely into the stomach. On the other hand, in some mammals, and especially the kangaroo, bile is poured into the intestine at a great distance from the pylorus.

In birds, as a general rule, the biliary ducts discharge their contents into the terminal part of the duodenum, and hence at considerable distance from the commencement of the intestine. The African ostrich is, however, an exception to this rule, for in this bird the bile penetrates the intestine 13 millimetres below the pylorus, and enters freely into the stomach. Duverney, however, explains the presence of bile in the stomach, by attempting to show that one of the two hepatic ducts enters directly into this viscus.

Haller affirmed that in certain fishes the bile is directly poured into the stomach, but this assertion has not yet been verified except in the case of the carp, where the bile is found to enter the stomach very near the œsophagus.

The ducts by which the bile and the pancreatic secretion are poured into the intestine are not united in all animals. They are separate in certain apes, in the unau, and the pangolins, among the edentata, in the ox, among the ruminants, in a considerable number of rodents, and in almost all birds. There is no rule as to which canal should enter the intestine higher than the other.

We regret to see that our author altogether ignores the labours of our industrious countryman, Dr. Crisp, in this department of anatomical inquiry.

GENERAL CORRESPONDENCE.

PUBLIC HEALTH IN THE SPRING QUARTER.

LETTER FROM DR. WALTER DICKSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In corroboration of your remarks (July 2) on the recent extraordinary drought I may be permitted to state that my experience as Medical inspector of the Customs entirely agrees with the views therein expressed as to the exceptional unhealthiness of the spring quarter just ended, notwithstanding the comparatively low mortality by which it has been distinguished. As you have invited special information on the subject from various sources, I venture to trouble you with a few reliable statistics of the period in question. I will premise by mentioning that the inferior officers of Customs in the Port of London under my immediate care are in round numbers about a thousand, and that they afford a very fair type of the lower middle-class and respectable working class of our metropolitan male adult population between the ages of 20 and 70. Their mean age is 39. Their incomes range from £70 to £100 a year. They are on the whole a healthy body of men, and, although their duties in many cases involve a considerable amount of exposure to weather and fatigue, they are in a great measure exempt from the privation and anxiety that uncertainty of employment and sickness so frequently entail on more highly-paid persons of the same class in ordinary life.

The spring quarter, is as a rule, the healthiest of the year. The admissions to the sick list are considerably fewer than in the other quarters—being 91, as the average of eight successive springs. The mortality for the same period is not below the mean—viz., 2·5, the average annual mortality of the Customs force having been for many years about 10 per 1000. The spring mortality is rarely caused, however, by spring disease, the deaths being chiefly due to chronic cases, mostly of pulmonary consumption, which have survived the winter. To show the fluctuations and non-correspondence of sickness and mortality in the spring quarters in the last eight years a short tabular view will suffice.

	Number of admissions.	Deaths.
1863	91	3
1864	107	1
1865	83	2
1866	95	4
1867	71	2
1868	99	2
1869	73	6
1870	111	—

In 1869 the cases of sickness were unusually few, while the mortality was extremely high; but in the season just concluded the amount of sickness was unprecedently great, but attended with no mortality; and this is the more remarkable as in the previous winter quarter there was also no death. The numerous admissions in the spring of 1870 were due to the following causes:—

Diseases of nervous system	12 cases.
„ respiratory system	26 „
„ digestive system	16 „
Rheumatism and gout	16 „
Diseases of the skin	11 „
Febrile disorders	10 „
Other diseases than the above	13 „
Wounds, contusions, and other accidents	7 „
	111 „

The febrile diseases included two cases of small-pox in vaccinated persons, and consequently of slight character, and several cases of febricula, caused by insolation. The warmth and dryness of the weather appeared also to increase the number of cases of vertigo, headache, and neuralgia, and to affect injuriously some epileptic and gouty subjects, while at the same time catarrh, sore throat, and diarrhœa occurred more frequently and in greater severity than is usual at this season.

In my annual reports to the Commissioners of her Majesty's Customs, submitted to the Lords of the Treasury, I have frequently referred to the desirability of some authentic records of the public health supplementary to the valuable information derived from the mortality returns of the Registrar General; for to every one conversant with sanitary statistics it is obvious that there is no necessary or fixed relation betwixt sickness and mortality in the great majority of diseases that cripple the energies of our working population, and inflict thereby seriously injury on the body politic. The valuable statistics of Islington and other places, for which abundant material exists, combined with those of the public departments, cannot fail to throw light on this important question, and it is to be hoped will help to open the eyes of our sanitary statesmen to the expediency of speedily instituting a registration of disease.

I am, &c. WALTER DICKSON, M.D.

14, Trinity-square, Tower, July 13.

AUTOPSY OF MARK WILSON, WHO WAS CURED OF ANEURISM OF THE ABDOMINAL AORTA IN 1864.

LETTER FROM DR. W. MURRAY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I think it important to publish the fact that the above patient died about a month ago. The autopsy revealed an occlusion of the aorta at the site of the aneurism. There was a very remarkable development of collateral vessels, by which the circulation has been maintained. The man died from rupture of the aorta a few inches above the site of the old aneurism, after six years of good health. I hope shortly to publish full details of the case; but my time just now is too much occupied for more than this short notice, the insertion of which will oblige. I am, &c.

Newcastle-on-Tyne, July 19. W. MURRAY.

CHLOROFORM ADMINISTRATION.

LETTER FROM DR. A. ERNEST SANSOM.

[To the Editor of the Medical Times and Gazette.]

SIR,—There are some remarks in Dr. Richardson's lecture (*Medical Times and Gazette*, May 28, 1870) which I cannot allow to pass uncontested. All attempts to insure greater safety by the use of chloroform diluted with volatile media are at once condemned as puerile and empirical. A table is given showing the great differences in specific gravity, vapour density, and boiling-point of the agents which are commingled, and from these figures it is supposed that the question is to be judged. I hold on the other hand that a dilution of chloroform with an equal bulk of absolute alcohol effectually insures the administration of an atmosphere containing as nearly as possible one-half the percentage which results when undiluted chloroform is employed. This is not at all a question of vapour densities and boiling-points. It is not pretended that the evolved chloroform-vapour is diluted *pari passu* with the vaporised alcohol. As I have before stated the alcohol acts chiefly in restraining the volatility of the chloroform, and thus indirectly inducing a free dilution by favouring the admixture with air. This is no vague generalisation, but a deduction from experimental facts; and the success of the practice of thus inducing anæsthesia is attested by competent observers.

Dr. Richardson agrees with me in his estimate of the dangers of strong atmospheres of chloroform, especially at an early stage of the administration. His explanation of the exact source of the danger, however, requires reconsideration. Adducing Prof. Rutherford's observations on the effects of other irritant vapours as analogical evidence, Dr. Richardson concludes that when chloroform induces cardiac syncope it acts by stimulation of the inferior branch of the vagus by the asphyxiated condition of the blood. This is no new theory; it was enunciated by Brown-Séquard; it is upheld by Dogiel (Reichert's und Dubois' Arch. 1866). But the researches of Scheinesson (Untersuchungen über den Einfluss des Chloroforms auf die Warmeverhältnisse des thierischen Organismus und den Blutkreislauf;" Arch. des Heilkunde 1869, Hft. 1, 2, 3) prove that this view is untenable. It is shown that chloroform has equally the power of slowing the heart's action in animals whose vagi have been previously divided. Even when the spinal cord was divided in the cervical region as well as the vagi and sympathetic, the heart's action was enfeebled by chloroform. The irresistible conclusion, therefore, is that chloroform has a special power upon the musculo-motor system of the heart.

The danger of chloroform resides in the fact that in strong doses it is a direct cardiac depressant. Its vapour when freely diluted, emotional causes of danger set aside, induces anæsthesia with very little risk. By previously diluting the chloroform with alcohol we can so restrain its volatility as to insure against the administered atmosphere being too strong at any given moment. The measure is simple, safe, and practical.

June 6. I am, &c. A. ERNEST SANSOM.

PETTENKOFER'S GROUND-WATER THEORY.

LETTER FROM DR. GEORGE BUCHANAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Professor v. Pettenkofer's defence of his ground-water theory of what we regard as excremental diseases is now before your readers, who are in a position to judge, without further observations from me, how far this theory is upheld by the facts quoted on one side or the other of the question.

I wish, however, to reproduce from Professor v. Pettenkofer's paper one or two extracts which appear to state his view, more nakedly than I have before understood it, that fluctuations in ground-water level can, but that simple direct excremental poisoning cannot, affect the prevalence of enteric fever and cholera. "Wells with impure water are to me only signs of impurity of the soil in their neighbourhood." "What I have pointed out with regard to the cholera wells in Altenburg may certainly always be shown in such typhus wells, that a large number of families, besides those affected, use the drinking water at the same time, without a single member of them falling ill, provided they dwell on another soil." "I regard human excrement as something pernicious, because it may favour the arising of typhus; but not by decomposing in cesspools or sewers, and spreading evil odours, but by passing into the soil, and manuring a ground also in other ways fit for typhus." We, who have before us the incident of the Broad-street cholera outbreak, the facts about the Southwark and Vauxhall Company's water supply in 1854, the case of the enteric fever epidemic at Guildford, or even the experiments on poisoning mice by cholera stools, shall probably think the direct introduction of poisonous matter into the animal body sufficient to produce such diseases, without much reference to the mysteries of Grundwasser. I am, &c.

July 16. GEORGE BUCHANAN.

ANENT "THE OLD REMEDY."

LETTER FROM MR. FRANK GODFREY.

[To the Editor of the Medical Times and Gazette.]

SIR,—In February, 1869, I was hastily summoned to see a lad (son of a deceased officer in the army), who had been picked up in the garden unconscious, upwards of an hour and a half having elapsed whilst the friends had been seeking aid from their own department. I found him on my arrival a fine stout lad, about 17 years of age, in a violent epileptiform convulsion; heart's action very tumultuous; face livid; body cold and covered with a clammy sweat; frothing at the mouth, and twitching of the muscles of face and neck; pulse so irregular as to be unable to count it. As a Medical friend of mine was passing, I called in his assistance, and he gave it as his opinion that the patient was *in articulo mortis*, and irrecoverable, that it would be best to give a turpentine enema and leave it to Nature. I suggested a lancet, to which he did not acquiesce. Left, therefore, to my own resources I sent for my lancet, and in the meantime busied myself with the application of ice to the head and spine, sinapisms to the calves of the legs, cold douches to the chest and frictions, nothing producing any change for the better. As soon as I got my lancet I bled him from the arm (the blood was very sluggish to come for some time), and after twelve ounces had been drawn the heart's action became more even, and the twitchings ceased; I continued up to twenty ounces, and then stopped to watch the result. The patient was now tranquil, but in about twenty minutes the convulsions began to return, and as my friend had come in again I asked him as to the advisability of repeating the bleeding; but he did not seem to think it any good, the amelioration of my patient having transpired during his absence. So, being again left to my own judgment, I let the stream again flow till the fit again subsided; and having taken altogether thirty ounces, I bound up the arm, and stayed to wateh the result. The convulsion

did not again recur, and in about two hours consciousness returned. Upwards of forty-eight hours elapsed before coherency and distinct articulation were completely re-established; but from that time he rapidly got well, and has never had any return of the fit. I found afterwards that the patient had had an abscess in one ear, which had been treated by a druggist by applications of iodine, and on the morning of the fit the abscess had burst, but as the hearing of that ear has not been destroyed, I do not think it could have burst internally.

Seeing the case mentioned by you of the use of an old remedy, I thought the foregoing might be acceptable. The gentleman whom I consulted with is since dead, so I cannot hurt his feelings by alluding to it. I may add, in conclusion, that it is the only case in my practice in which I have seen venesection indicated. I am, &c.

FRANK GODFREY,
July 9. Assistant-Surgeon Convict Prisons, Gibraltar.

A MEMORIAL TO SIR JAMES CLARK.

[To the Editor of the Medical Times and Gazette.]

SIR,—With reference to a short letter headed as above, and signed "A. F.," that appears in your issue of Saturday last, will you kindly permit me to say that arrangements are in progress towards a scheme of that kind in connexion with Sir James Clark's own proper *Alma Mater*, the University of Aberdeen.

It is believed that, could he have been consulted in his lifetime in regard to a memorial which should perpetuate his name, Sir James would have indicated as to its seat his own university in the north, and, as to its kind, one or more scholarships bearing his name in its Medical Faculty.

All through his long life he took the deepest interest in its welfare. It was there that he and his bosom friend and fellow-student, the late Sir John Forbes, received that training which essentially aided in making them what they made themselves—men worthy of all honour. And for it they both in their lifetime testified their strong filial regard by presenting to it—Sir John, his splendid library; Sir James (only a few weeks ago), what was to him perhaps the most precious of his household goods—a portrait of the Queen painted expressly for him by her Majesty's command the year after she ascended the throne. I am, &c. A. H.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 10, 1870.

GEORGE BURROWS, M.D., F.R.S., President, in the chair.

A PAPER, by Sir HENRY THOMPSON, was read on

AN ANALYSIS OF 184 CASES OF STONE IN THE BLADDER OF THE ADULT TREATED BY LITHOTRITY.

The author presented a series of 184 consecutive cases of lithotrity in the adult, operated upon within a recent period; all treated by the same method and with the same instruments. He furnished all the most important details relating to each case, and presented the stone itself in almost every instance, preserved for inspection. His object was to make an impartial estimate of the crushing operation, to ascertain its real value, and its place amongst Surgical operations. Although this had never yet been fully done, he regarded Sir B. Brodie's last communication to the Medical and Chirurgical Society as perhaps the most trustworthy and valuable record, as far as it goes, which exists on the subject. In order to accomplish this object, he had made carefully written records of every case; and he cited the following circumstances as necessary to be taken into consideration: that the 184 cases had been treated by a uniform method, within a comparatively brief period of time; that all were adults, and embraced much variety of constitution; that all the important facts relative to each were noted in a history of each one, which was attached to the paper as an appendix; and that a large proportion of the calculi were of considerable size. And the author believed he was correct in saying that so complete an opportunity for studying the results of lithotrity had not been offered hitherto, since, as far as he was aware, the data necessary for the formation of a judgment had not been presented to the Profession, either in this country or elsewhere. The results of the operation were discussed under the following heads:—1st. The rate per cent. of recovery after the operation, and the causes of death when it occurred. 2nd. The general condition of the patient after the operation. 3rd. The frequency of recurrence of stone after lithotrity. The chief facts relative to the 184 cases were as follows:—They were consecutive in point of time, no case being omitted; that all were adults, and mostly of advanced age; that they included many individuals of very feeble health and constitution; that they were chiefly British, although several were from other nations. The mean age of the 184 cases was no less than sixty-one years. The youngest was twenty-two years old. Only three were below thirty years. The oldest was eighty-four years. There were forty-six cases of seventy years and upward. With very few exceptions, all stones of an ounce and upward were reserved for lithotomy. All obviously below that were crushed. Not one case was refused operation, not one was left unfinished, and in no instance was an operation of lithotrity completed by lithotomy. The recoveries, reckoning every kind of casualty following the operation, were 93 per cent.; but omitting five cases of death, not by any means due to it, the mortality amounted to only 4 per cent. A second operation for recurrence of the stone was performed for thirteen of the 184 cases; 122 were uric acid and the urates; 16 were mixed; 40 were phosphatic; 4 oxalate of lime; 1 cystic oxide; and 1 pure phosphate of lime. The important logical conclusion to be derived from the mass of facts considered was, that lithotrity is an eminently successful operation. For a certain number of cases, its success may be regarded as a certainty—absolutely without fear of any contingency, except such as attends the minor operations of Surgery,—for example, the opening of a small abscess, or the passing of a catheter. For the author stated that he had never lost a patient in the whole course of his experience after crushing a stone which was no larger than a small nut; and this he considered was a size at which, with few exceptions, every stone ought to be discovered. But this very fact led the author to remark that the success of lithrotity cannot therefore be considered apart from a knowledge of the extent, in regard of the magnitude of the stone and the constitution of the patient, to which the capabilities of the operation have been pushed. When it is employed for stones as large as a date or a small chestnut—and it is impossible to deny the excellent chance of success which this method offers to the subjects of such stones—a certain, but still only small, proportion of deaths must be expected. And the rate of mortality will correspond with augmentation in the size of the stone, and with the amount of existing disease and age on the part of the patient. Given a small stone in a fairly healthy person, and success is certain; the possibility of contingency in such a case depending only on the presence of those remote and excessively rare conditions which will make for an individual here and there the mere passing of a catheter a cause of death. The rule observed had been, for the most part, to apply lithotrity to all calculi obviously less than an ounce in weight, easily discovered by sounding, and to operate on all larger ones by lithotomy.

Mr. CADGE, of Norwich, observed that that city, although fertile in many good things, was also fertile in stone. He had himself been House-Surgeon, and afterwards private assistant, to the late Mr. Liston, and possessed unpublished records of his cases, which, together with his own, amounted to 105, among which there were ten deaths, six of them being attributable to the operation. There were ten recurrences of stone; and, of the ninety-five patients who survived the operation, some made only partial recoveries. The great success attained by the author of the paper might make others almost envious; but it also suggested the inquiry, how is such success to be explained? Partly, no doubt, by personal skill; partly also from the class of patients operated upon. Of his own patients, fully one-half were Hospital cases. Putting aside the deaths, he wished to know what became of the remaining 93 per cent.? They could not all be cured. There must be among them a considerable amount of residual evil. He regarded the recurrence of stone as the weak point of lithotrity. If 100 cases cut and cured were compared with 100 crushed and cured, the former would be found to be cured more completely and more permanently than the latter, and the reasons for the difference were not far to seek. A large percentage of the patients have reached what may be called the prostatic age, and have complications which render it difficult for them to rid themselves, or for the operator to rid them, of the last wee bit of the calculus.

If one wee bit remain, it forms the nucleus of an inevitable recurrence. He could not admit that cystitis was ever a cause of stone, or that concretions ever formed in the bladder itself, except upon a nucleus that had either descended from the kidney or had been furnished in some other manner. He took it for granted that in cases of recurrence something had been left behind. If it were fair to give instances, it would be easy to do so, and it was very difficult to be sure of the absence of stone. He almost regretted these remarks, because they seemed to be in some measure directed against an operation which he nevertheless regarded as one of the most brilliant achievements of modern Surgery.

Mr. Walter Coulson thought that one effect of the paper would be to silence the opponents of lithrotity, if, indeed, any remained. He then quoted the statistics of Civiale, Brodie, and Keith, and compared them with those of the author; and asked what had been the state of the bladder after the operation in the author's cases. It often happened that a lithotrity, in all other respects successful, was followed by impairment of expulsive power, and by a consequent train of distressing symptoms.

Mr. Erichsen believed the time had now come at which lithotomy and lithotrity should be regarded as absolutely distinct, and at which the Surgeon should be prepared to choose between them with regard to any particular stone and any particular bladder. In this choice, indeed, the skill of the Surgeon is displayed. The author had brought before the Society the results only of his operations in lithotrity; and there was no other example of 130 consecutive cases having been treated so successfully. Civiale's statistics were not trustworthy, because he did not recognise the true character of deaths that were remotely dependent upon the operation; nor, even in his later years, all the after consequences arises from it. As a chief element in the author's great success, putting aside personal questions, he thought the early recognition of stone was the most important. In respect to the recurrence of stone after lithotrity, he altogether differed from Mr. Cadge with regard to the necessary presence of a residual fragment; and had repeatedly seen the formation of distinctly cystic nuclei in cases of spinal injury. Mr. Coulson had hit the weak point of the operation in his remarks upon subsequent atony of the bladder. He had not unfrequently seen this after lithotrity, and it was a fatal condition for the aged, who might, indeed, live on for a year or two, but even then in constant peril.

Mr. Jonathan Hutchinson asked whether there had not been at least one of the cases in which lithotrity had failed to relieve the patient, and in which lithotomy was afterwards performed.

Mr. Charles Brooke agreed with Mr. Cadge rather than with Mr. Erichsen, on the question of a residual fragment in cases of recurrence. The sounding board was of especial value in assisting the Surgeon to detect small fragments, a fact of which Nélaton had convinced himself in 1855.

Mr. Teevan thought the question really was whether the Surgeon would succeed best by practising both operations, or one only. The ultimate success of lithotrity was less than was supposed.

Dr. Althaus said that at Heidelberg, twenty years ago, Professor Chelius cut eighty patients in succession, among whom there were only four deaths.

Sir H. Thompson asked the ages of these patients, but Dr. Althaus could not tell.

Mr. de Méric asked for further information about the alleged unwillingness to operate in French Hospitals, and expressed a hope that the author sought so to train his pupils that his mantle might in time descend upon them.

A Visitor said that he was House-Surgeon to University College Hospital, and bore testimony to the author's careful teaching.

Sir Henry Thompson, in replying to the various speakers, said that he had endeavoured, in his statistics, to supply what he had found to be imperfections in previous records, none of which gave the number of patients. Thus, in Civiale's cases many patients figured more than once. With regard to atony of the bladder, he had often observed it; and it was often present before the operation, but masked by more prominent symptoms. Neither lithotrity nor lithotomy would do more than remove the stone; and from 20 to 30 per cent. of the patients would have other urinary troubles. He accepted recurrence as the opprobrium of lithotrity, and valued any method by which the last fragment could be more certainly discovered. Of late years he had used with great advantage Mr. Clover's instrument for washing out the bladder. In the case referred to by Mr. Hutchinson, he had crushed and removed two or three small uric-acid stones in October, and it was necessary to perform lithotomy five months later, but not for the same stone. In Paris, according to his observation, it was not uncommon for an operation to be adjourned *sine die*.

OBITUARY.

JAMES COPLAND, M.D., F.R.S.

(*Concluded from page* 80.)

In 1823 he reviewed Paris and Fonblanque's work on Medical Jurisprudence in the *Medical Repository*. Paris having lauded the College of Physicians in the work, Copland attacked that institution with much vigour. Paris did not reply, but it was mooted in the Council of the College whether the reviewer should not be reprimanded. "But," said Copland, "they were afraid to do so." It was to this circumstance that Copland attributed the formation of the Licentiates Committee, formed for the purpose of procuring a reform in the College laws with respect to the Fellowship. It is possible that Dr. Copland's article might have had some influence in the matter; but there had been long a strong feeling against the bylaws of the College which excluded from the Fellowship all members who were not graduates of an English University. The history and proceedings of this committee will be dealt with in one of my articles forming autobiographical sketches. About this time Sir A. Cooper published a paper in the *Transactions of the Medical and Chirurgical Society* on the origin of calculus in the bladder, in which he endeavoured to show that it arose from urinary deposit in the bladder from that viscus not having been completely evacuated. Copland attacked this opinion, and said that the calculus had its origin in the kidney, that the nucleus passed into the bladder, and being there retained it was coated by concentric layers. Copland, in stating this opinion, spoke in the highest terms of Sir A. Cooper, but he was firm in his expression of its truth, as it was gathered from his own experience and the writings of the most eminent Surgeons. Soon after this he was called in consultation to a case with Sir A. Cooper, who, in his fine way, said—"Dr. Copland, I've read your review; I believe after all I am wrong; you're right!" Cooper soon after sent him a handsome present of game, and signed his certificate of recommendation for the Fellowship of the Royal Society. About this time, also, Baillie, in the *Transactions of the College of Physicians*, published a paper to show that paraplegia was more frequently caused by disease of the brain than of the spinal cord. Copland opposed this view, and proved that paraplegia was very rare from brain disease.

In the year 1823 Copland attempted to found a Meterological Society, but the effort failed. He could not succeed in finding members sufficient to pay expenses. Copland was in the habit of expressing himself very freely and decidedly, both in public and private. He told me that shortly after the death of Sir H. Halford, who had left his friend Lockley to die at Tring from apoplexy, whilst he went to his seat in Leicestershire to meet a dinner party, he (Copland) was dining at Cartwright's with about twenty other persons, most of them gentlemen in general Practice. The subject of Lockley's death was canvassed, and one gentleman broke out into severe censure upon Halford for not bleeding him. The language employed was beyond what Copland thought was just, and he said, "I knew Sir H. Halford; I never received benefit or kindness from him; but I believe if he had bled his friend, a greater outcry would have been raised against him than there is now. Now he is gone you can speak your mind, but when he was alive you were anxious to toady him. I can only say I knew Sir H. Halford as a gentleman, a scholar, and a good Physician. I am sorry that he is now like the dead lion in the fable." "Cartwright," said M———, "take notice of this language." M——— called on Cartwright the next day, and talked of calling out Copland. "Don't," said Cartwright, who enjoyed the fun. "He'll accept the challenge; he's a dead shot."

When Elliotson retired from University College, Copland was selected by the Council to finish his course of lectures. This he did, but he was not very successful. His style was too massive, as it were, after the terse, vigorous, and almost epigrammatic sentences of Elliotson. He was not afterwards elected to the chair, Dr. C. J. B. Williams having been chosen. Copland for a time lectured on the practice of Medicine at the Middlesex Hospital school.

In addition to his being a Fellow of the Royal Society, he

was an elected Fellow of the College of Physicians; he had been censor, councillor, Gulstonian and Croonian lecturer, and he had been president of the Royal Medical and Chirurgical Society.

He retired from practice some time since, and a few months ago left his house in Old Burlington-street to reside at Hertford-house, Brondesbury-road, Kilburn, where he died on the 12th inst., after an illness of ten days, the chief symptom being hæmaturia, probably from disease of the prostate. He had long been a martyr to attacks of gout, and for nearly three years had occasionally passed blood with his urine. He was attended in his last illness by Drs. Cleaveland, Murchison, and Richardson.

Dr. Copland's fame will rest mainly upon his dictionary—a monument of learning, industry, and power. But it must not be supposed that he was a mere book-worm. He was a thorough practical Physician. His shrewd common-sense was as remarkable as his acquirements. His powers of diagnosis were above the average, and his mode of treatment simple, but decisive. His book-lore never seemed to encumber him at the bedside, as has been the case with some learned Physicians. His style of writing was somewhat ponderous, but clear, his lecturing too heavy. He was a frequent speaker at the societies, and often startled the audience by referring to something he had said bearing on the case or question under discussion "thirty years ago" in his dictionary. This was so general that it was almost a stereotyped phrase. In his manners he was rather rough than polished, but thoroughly straightforward and honest.

He poured out all his soul as plain
As downright Shippen or as old Montaigne.

He was most hospitable and generous, and was never more at home than in the "happier hour," when surrounded by his friends at his genial table.

In person he was about the common height, of a robust build, and striking countenance. His head was largely developed, and bore a resemblance to that of Samuel Johnson.

J. F. C.

Errata in Last Notice.—For "Dr. Urwins," read Uwins; and for "Nasoleum," Mausoleum.

JOSEPH MIDDLETON PENMAN, M.D.

Last week, at Sunderland, at the age of 64, died this well-known Physician. He had been in practice in Sunderland for forty-one years. He was educated at the Borough Hospital, and was a favourite pupil of Sir Astley Cooper. He acted as House-Surgeon to the Sunderland Infirmary for some time, and then he started in practice in the town, where he was most successful. He died somewhat suddenly, from cirrhosis of the liver. Vomiting and purging of blood came on, and continued for about twenty-four hours, when he died. It is remarkable that his brother, Mr. Thomas Penman, of the Felling, died of exactly a similar complaint, surviving only twelve hours the first attack of bleeding.

JOHN ZACHARIAH LAURENCE, F.R.C.S., M.D.,

Died on the 18th inst., in his 42nd year. He was a Surgeon of admirable promise, and had identified his name with various subjects connected with ophthalmic Surgery. He was before his illness a frequent visitor to the societies, and often joined in discussion. His best work was, perhaps, a treatise on cancer, to which the Liston gold medal was awarded by the University College authorities; but he was best known as a writer on ophthalmology. He was for a time editor of the *Ophthalmic Review*, a very useful publication; and with Mr. Moon he published a "Handy Book of Ophthalmic Surgery."

The late Mr. Orridge.—We are sorry to announce the death of the late Mr. Benjamin Brogden Orridge, who died on July 17, aged 56. Mr. Orridge was best known to the Profession as a highly trustworthy and reliable Medical agent, and in that capacity enjoyed the confidence of a large number of Medical men. He was for many years Treasurer of the Benevolent Fund of the Pharmaceutical Society. He also possessed considerable literary and antiquarian tastes. He was active in the City Library, and took a principal part in the publication of the *Liber Albus*.

Horseflesh.—2758 horses were killed for food in Paris last year.

MEDICAL NEWS.

Royal College of Physicians of London.—At an extraordinary meeting of the College on July 18, the following gentlemen, having conformed to the bylaws and regulations, and passed the required examinations, were granted Licences to practice Physic, including therein the practice of Medicine, Surgery, and Midwifery, viz.:—

Allen, Thomas, King's College Hospital, W.C.
Bateley, John, M.R.C.S., Southtown, Great Yarmouth.
Butt, William Frederick, M.R.C.S., 12, South-street, Park-lane, W.
Davies, William Bowen, M.R.C.S., 15, Edmund-terrace, Cornwall-rd., W.
Goodsall, David Henry, M.R.C.S., St. Mark's Hospital, City-road, E.C.
Hodges, William, M.R.C.S., 12, Ashley-road, Bristol.
Millson, George, Donington, Spalding.
Price, William, M.R.C.S., University College Hospital, W.C.
Raynor, Arthur, M.R.C.S., 16, Warden-road, Kentish Town, N.W.
Robinson, Tom, M.R.C.S., London Hospital, E.
Smith, Wm. Wilberforce, M.R.C.S., 20, Bishop's-road, W.
Spencer, Henry Banks, M.D. St. And., High-street, Oxford.
Thorne, William Bezley, M.R.C.S., 38, Upper Baker-street, N.W.
Timotby, Peter Vincent, M.R.C.S., 72, Worship-street, E.C.
Way, Edward Willis, M.R.C.S., Adelaide, South Australia.

The following candidate, having passed in Medicine and Midwifery, will receive the College Licence on his obtaining a qualification in Surgery recognised by the College:—

Holmes, Charles, 46, Ogden-street, Ardwick, Manchester.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on the 19th inst., and, when eligible, will be admitted to the pass examination:—

Anthonisz, A. H., Aberdeen.
Aveling, E. B., University College.
Barrow, C. A. G., Guy's Hospital.
Battersby, W. E., Dublin School.
Blake, G. F., Birmingham School.
Blake, S. H., University College.
Brumwell, J. P., Guy's Hospital.
Clark, Frederick, Toronto and St. Thomas's Hospital.
Cullen, Ebenezer, Guy's Hospital.
Davies, H. W., St. Mary's Hospital.
Deane, R. E., Leeds School.
Eminson, Luther, University Coll.
Gould, A. P., University College.
Gould, Thos., Birmingham School.
James, W. D., Sheffield School.
O'Farrell, G. P., Dublin School.
Robey, S. H., Birmingham School.
Rogers, F. G. A., Guy's Hospital.
Tims, T. L., Calcutta and Guy's Hospital.
Ward, W. A., St. Bartholomew's Hospital.
Warren, G. M., Toronto.
Whitmarsh, J. L., London Hospital.

The following passed on the 20th inst.

Appleyard, J., University College.
Bellwood, J., University College.
Bennett, W. E., Guy's Hospital.
Bland, W. G., St. Bartholomew's Hospital.
Bryan, C. F., Guy's Hospital.
Cockerton, H. H., London Hospital.
Dunnage, A. R., Guy's Hospital.
Elliott, N. B., Guy's Hospital.
Hands, Arthur, Birmingham School.
Henson, W. K., Hull School.
Hope, S. W., St. George's Hospital.
Jenkinson, H., Leeds.
Jones, V. D. W., Guy's Hospital.
Morley, J. L., Guy's Hospital.
Nunn, P. W. G., St. Bartholomew's Hospital.
Steele, F., Liverpool.
Thomas, E. F., Guy's Hospital.
Wall, A., St. Bartholomew's Hospital.
White, J. K., London Hospital.
Young, H., Edinburgh.

It is stated that of the 72 candidates examined on the 19th and 20th inst., 40 failed to satisfy the Court, and were referred to their anatomical studies for three months.

The following candidate, who passed in Surgery at a previous meeting of the Court, having since obtained a qualification in Medicine recognised by the College, was admitted a Member:—

Hasard, John, L.S.A., of Melbourne, Derbyshire.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 14, 1870:—

Crackle, Thomas Arthur, Nottingham.
Lang, John Alfred Thomas, Stoke Newington.

As Assistants in Compounding and Dispensing Medicines:—

Baker, William Ritchie, Wimbledon.
Ritson, George, Sunderland.

The following gentlemen also on the same day passed their First Professional Examination:—

Aylen, Thomas Vaughan, St. Bartholomew's Hospital.
Bonser, John Hanbury, St. Thomas's Hospital.
Boodle, Robert Maxwell, St. Bartholomew's Hospital.
Brewer, Reginald E. W., St. Bartholomew's Hospital.
Corrie, Alfred Thomas, St. Bartholomew's Hospital.
Cowley, John S., St. Bartholomew's Hospital.
Davies, Arthur E., University College.
Donahoe, Thomas B., Guy's Hospital.
Finzi, Leon Moses, University College.
Shemilt, George Robert, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Burrows, George, M.D., F.R.S.—One of her Majesty's Physicians Extraordinary.

Symes, Edmond W., M.R.C.S.—Assistant Resident Medical Officer to the Leeds Public Dispensary, *vice* T. Davies, L.R.C.P.E., etc., resigned.

Watson, Sir Thomas, Bart., M.D., F.R.S.—One of the Physicians in Ordinary to her Majesty, in the room of Sir James Clark, M.D., F.R.S., deceased.

MILITARY APPOINTMENTS.

Medical Department.—Staff Assistant-Surgeon Augustus Frederick Elliot, M.D., to be Staff Surgeon; Staff Assistant-Surgeon Samuel Rowe, M.B., to be Staff Surgeon; Staff Assistant-Surgeon Allan Nesbitt Fox to be Staff Surgeon; Staff Surgeon-Major Sandford M'Vittie Lloyd, M.D., to be Deputy Inspector-General of Hospitals, *vice* Francis Reid, M.D., placed on temporary half-pay from June 1, 1870.

BIRTHS.

Burns.—On July 3, at Holt-street, Burnley, Lancashire, the wife of John Burns, L.R.C.P. Ed., of a son.

Buzzard.—On July 14, at 56, Grosvenor-street, the wife of Thomas Buzzard, M.D., of a daughter.

Charlton.—On July 18, at Southborough, Tunbridge Wells, the wife of Alfred Charlton, M.R.C.S.E., etc., of a daughter.

Easton.—On July 8, at Castle-street, Stranraer, N.B., the wife of David Easton, M.D., of a son.

Ensor.—On July 9, the wife of J. A. Ensor, M.R.C.S.E., of Tisbury, Wilts, of a son.

Green.—On July 9, at Settle, Yorkshire, the wife of Edwin S. Green, L.R.C.P., of a daughter.

Lilley.—On July 24, at Forest Grange, near Leicester, the wife of Dr. Lilley, of a daughter.

Norton.—On July 17, at Rye House, Putney, the wife of Selby Norton, M.D., of a daughter.

Ormerod.—On July 14, at 14, Old Steyne, Brighton, the wife of Edward L. Ormerod, M.D., of a son.

Reid.—On July 16, at 3, Royal Marine-road, Kingstown, the wife of Dr. Reid, of a son.

Rogers.—On July 7, at Lombardy Lodge, Kensington, the wife of Joseph Rogers, Esq., of 16, Hanover-square, W., of a son.

Thomson.—On July 5, the wife of D. Thomson, M.D., of Higham Ferrers, of a daughter.

Weaving.—On July 7, the wife of A. Weaving, M.R.C.S.E., L.S.A., of Queen-street, Oxford, of a son.

MARRIAGES.

Attwater—Stamp.—On July 19, at St. Saviour's, Paddington, Arthur William Attwater, M.R.C.S., L.R.C.P., of Whickham, near Gateshead, to Sophia Isabella, second daughter of W. C. Stamp, Esq., of 1, Randolph-gardens, Maida-vale.

Byse—Lee.—On July 14, at St. James's, Piccadilly, the Rev. Charles Byse, of Nimes, to Fanny, eldest daughter of Henry Lee, Esq., of Savile-row, London.

Clothier—Carr.—On July 13, at Twerton, Henry Clothier, M.D., son of Henry Clothier, Esq., of Haslemere, to Mary Elizabeth, eldest daughter of Isaac Carr, Esq., of Twerton-wood House, near Bath.

Watson—Aldridge.—On July 12, at St. George's, Bloomsbury, Edward John Watson, Esq., fourth son of Dr. J. Watson, of 6, Southampton-street, Bloomsbury, to Florence, fourth daughter of Joseph Aldridge, Esq., of 27, Montague-place, Russell-square.

Wilson—West.—On April 26, at Talgai, Darling Downs, Queensland, John Frederic Wilson, of Holmhurst, Taviunia, Fiji, second son of the late Rev. John Alex. Wilson, Childwall, Liverpool, to Hessie Madeline, youngest daughter of the late George West, M.D., of Sydney, New South Wales.

DEATHS.

Aspinall, R., M.R.C.S.E., of Ebor-house, Shipley, Yorkshire, on July 2, aged 54.

Barlow, Clara, fourth daughter of W. R. Barlow, Esq., of Writtle, Surgeon, on July 11.

Kidd, Fanny Pakenham, youngest child of Leonard Kidd, M.B., Surgeon, Army Medical Staff, at 6, Newton-terrace, High-road, Lee, S.E., on July 19, aged eight weeks.

Laurence, John Zachariah, F.R.C.S., M.B., of 3, St. Peter's-square, Hammersmith, and late of 30, Devonshire-street, Portland-place, on July 18, after a lingering illness of sixteen months, to the inexpressible grief of his afflicted children, in the 42nd year of his age.

Machill, Joseph, M.R.C.S.E., of Pudsey, on July 5, aged 56.

Moore, Francis George, M.R.C.S. Eng., Thicket-road, Anerley, second son of the late Rev. Francis Moore, of Kennington, on July 13, in the 55th year of his age.

Phillips, Edward England, M.R.C.S.E., late of Pound-close-house, Chilton Polden, Somerset, and Norfolk-crescent, Bath, at Adelaide-road, N.W., on the 5th inst., in the 56th year of his age.

Renton, Chaistina Adam, wife of Robert Renton, M.D., F.R.C.P.E., at 31, Chalmers-street, Edinburgh, on July 17, aged 75.

Scudamore, Edward, M.D., of Harbledown, Canterbury, on July 17, aged 84.

Turner, Anna Maria, widow of the late David Sanders Turner, and daughter of the late Dr. Robert Hunter, of Margate, at Roseberry-villas, Tuffnel-park, on July 11, aged 84.

Wilkie, John, M.D., late Superintending Surgeon, Meerut, at Nynee Tal, N.W.P., India, on May 23.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Birmingham and Midland Free Hospital for Sick Children.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to the Medical Committee on or before the 21st inst. Election on the 25th.

Brighton and Hove Lying-in Institution.—Resident House-Surgeon; must be M.R.C.S. of Great Britain or Ireland and L.R.C.P. Lond. or L.S.A., and duly registered. Applicants must send their testimonials, with a certified copy of registration, under cover to the Chairman of the Committee, on or before August 3.

Caterham Asylum for Imbeciles.—Assistant Medical Officer. Salary £150 per annum, with apartments and rations. Applicants must possess a double qualification. Applications, with testimonials, to be sent to the Committee, 37, Norfolk-street, Strand, on or before Thursday, the 28th inst.

Eastern Dispensary, Bath.—Assistant Medical Officer; must be M.R.C.S. and L.S.A. Applications and testimonials to R. E. Crickitt, Esq., 4, Belvedere-villas, Bath, on or before the 31st inst. Notice of the day of election will be sent to selected candidates.

Hartley Wintney Union.—Medical Officer. Applicants must be registered, and possess the qualifications required by the Poor-law Board. The salary is £80 per annum, with extra fees, etc. Testimonials to be sent to William Brooks, Clerk, Odiham, Hants, by Thursday, the 28th inst.

Hulme Dispensary, Manchester.—House-Surgeon. Applications and testimonials to the Chairman of the Medical Committee, Drake-street, Manchester, on or before July 27.

Jersey General Dispensary.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Salary £100, with furnished rooms, attendance, gas, coals, etc. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

Lancaster Union.—Medical Officer; salary £45 a year with extra fees for midwifery and certain operations. Applications, stating age, qualification, with testimonials, may be sent not later than Wednesday, the 27th inst., at 10 a.m. J. Grant, clerk.

Leavesden Asylum for Imbeciles.—Assistant Medical Officer. Salary £150 per annum, with board and residence. Applicants must possess a double qualification. Applications on a printed form (which will be provided), with not more than four testimonials, to be forwarded to the Committee at 37, Norfolk-street, Strand, on or before the 27th inst.

London Hospital, Whitechapel-road, E.—Medical Clinical Assistant; must possess a qualification to practise. Applications and testimonials to the "House Committee," on or before the 25th inst.

Metropolitan Asylum District.—Assistant Medical Officer for the Asylum for Imbeciles, Caterham. Candidates must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. W. F. Jebb, 37, Norfolk-street, Strand, on or before July 28.

Metropolitan Asylum District.—Assistant Medical Officer for the Asylum for Imbeciles, Leavesden, Watford. Candidates must have both Medical and Surgical qualifications. Applications and testimonials to Mr. W. F. Jebb, 37, Norfolk-street, Strand, on or before July 27.

Middlesex County Lunatic Asylum, Colney Hatch.—Assistant Medical Officer for the Female Department. Must be duly qualified and registered. Applications and testimonials to Mr. J. S. Skaife, at the Asylum, on or before the 23rd inst.

Newport Union, Monmouthshire.—Medical Officers required for the following districts of this Union:—Bedwas, Risca, Marshfield, Caerleon, and Magor. Candidates must be duly qualified and registered, and will be required to reside in the districts to which they are appointed. Applications and testimonials to W. D. Evans, clerk, on or before August 12. Election on the 20th.

Oswestry Dispensary.—Secretary and Dispenser. Applications and testimonials to J. S. Davies, Surgeon, Oswestry.

Royal Berkshire Hospital, Reading.—House-Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary, on or before August 1. Election on the 16th.

St. Pancras and Northern Dispensary.—Honorary Physician. Candidates to apply to the Hon. Secretary, S. S. Wigg, Esq., 33, Gordon-street, Gordon-square, W.C.

South Devon and East Cornwall Hospital, Plymouth.—House-Surgeon. Salary £80 a year, with board and residence. The candidate must be a Member of one of the Colleges of Physicians or Surgeons in the United Kingdom. Testimonials to be sent to Alfred Rooker, Secretary, on or before the 31st inst.

Staffordshire General Infirmary, Stafford.—House-Surgeon and Secretary. Candidates to send in their testimonials before 12 o'clock on Friday, July 29. They must be M.R.C.S. of London, Dublin, or Edinburgh, and a legally qualified apothecary. The salary will be £100 for the first year, and will increase at the rate of £10 per annum for four years, with board, washing, etc. Further information may be obtained of the Secretary, George R. Raine, M.B.

University of Durham College of Medicine, Newcastle-on-Tyne. Medical Tutor. Applications and testimonials to Mr. Luke Armstrong, at the College, as above.

Western General Dispensary, 264 and 266, Marylebone-road, N.W.—Resident Surgeon and Apothecary; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary, on or before July 25. Election the same day at 8 p.m.

Windsor Royal Infirmary and Dispensary.—House-Surgeon, and also a Dispenser. Applications and testimonials to the Secretary, Mr. G. Cartland, 16, Park-street, Windsor, on or before July 27.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Basingstoke Union.—Mr. F. Izod has resigned the Fifth District; area 4994; population 1307; salary £53 per annum.

Hartley Wintney Union.—Mr. William J. Mickle has resigned the Farnborough District; area 12,244; population 3200; salary £80 per annum.

APPOINTMENTS.

Gravesend and Milton Union.—James H. Gramshaw, M.R.C.S. Eng., L.S.A., M.D. St. And., to the Gravesend District. James H. Armstrong, M.R.C.S. Eng., L.S.A., to the Milton District.

St. Ives Union.—David M. Serjeant, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Warboys District.

ROYAL COLLEGE OF PHYSICIANS.—The following is the list of Members nominated for the Fellowship of the Royal College of Physicians, 1870:—

William Wadham, M.D., 12, Park-lane, W.
Samuel Martyn, M.D., Bristol.
Adam Bealey, M.D., Harrogate.
Stephen Henry Ward, M.D., 28, Finsbury-circus, E.C.
Edward Clapton, M.D., 10A, St. Thomas's-street, S.E.
William Cholmeley, M.D., 40, Russell-square, W.C.
George Britton Halford, M.D., Melbourne, Victoria.
Edward Long Fox, M.B., 1, Chesterfield-place, Clifton.
Edward Thomas Wilson, M.B., Cheltenham.
Charles Elam, M.D., 18, Harley-street, W.
Arthur Julius Pollock, M.D., 21, Montague-place, Russell-square, W.C.
Henry Matthews Tuckwell, M.D., 12, Broad-street, Oxford.
Octavius Sturges, M.B., 85, Wimpole-street, W.
William Smoult Playfair, M.D., 5, Curzon-street, Mayfair, W.
Henry Gowen Sutton, M.B., 9, Finsbury-square, E.C.
Samuel Fenwick, M.D., 31, Harley-street, W.
Sydney Ringer, M.D., 15, Cavendish-place, W.
Charles Hilton Fagge, M.D., 11, St. Thomas's-street, S.E.
William Selby Church, M.B., 41, Bryanstone-street, W.
Samuel Jones Gee, M.D., 54, Harley-street, W.
Walter Butler Cheadle, M.D., 6, Hyde-park-place, W.
Philip Henry Pye-Smith, M.D., 31, Finsbury-square, E.C.
Dyce Duckworth, M.D., 11, Grafton-street, Bond-street, W.
Henry Charlton Bastian, M.D., 20, Queen Anne-street, W.

MEDICAL CLUB.—It having been found that the terms upon which this club was started are insufficient to maintain it efficiently, it was resolved unanimously, at an extraordinary general meeting held on Wednesday, Sir W. Fergusson, Bart., in the chair, that for the future all the members shall pay a uniform subscription of five guineas for town, and three guineas for country, army and navy Surgeons alone being allowed the alternative of paying half-a-guinea a month during such time as they use the Club, and one guinea a year whilst abroad. The changed rates will be payable on January 1 next.

HOSPITAL OUT-PATIENT REFORM.—The Committee on Hospital out-patient reform will meet to continue the consideration of the reports presented by the sub-committees, on general and special Hospitals and provident and poor-law dispensaries, at the Hospital for Women, Soho-square, on Thursday evening, the 28th inst., at 8 o'clock.

FORMATION OF A CENTRAL VETERINARY MEDICAL SOCIETY.—For a considerable number of years the veterinary Surgeons of London and southern counties have been without an association or society among themselves for the discussion or investigation of scientific matters in connexion with the profession, and the absence of such had begun to be experienced as a general inconvenience. The necessity for a society has almost been daily magnified of late, in consequence of the establishment of numerous provincial associations that are anxiously looking forward to a representative society in the metropolis, to which they can have the power of appeal in cases of doubt, difficulty, and emergency. The conditions were some time ago forcibly alluded to by the editors of the *Veterinarian*, and shortly afterwards a personal canvass of the metropolitan Practitioners was commenced by Mr. Armitage, M.R.C.V.S., who, having received an amount of encouragement which exceeded his expectations, determined upon calling together the members of the veterinary profession in order to ask their co-operation in the establishment of a society in accordance with the wants of the body. The President and Council of the Royal College of Veterinary Surgeons gave the use of their board-room for a preliminary meeting, which was numerously attended, on Monday last. A general desire prevailed for the establishment of a society on a broad basis and perfectly independent principles, and ultimately it was agreed to start into existence under the designation of the "Central Veterinary Medical Society."

THE Medico-Ethical Association of Manchester has petitioned the House of Commons to insert a clause in the Medical Bill giving the general Profession direct representation in the Medical Council, or, failing that, to reject the Bill. It has also communicated with the three members for the City on the subject, and requested them to use their influence in support of the petition.

La France of Tuesday announced that Sedillot, the veteran Professor of Clinical Surgery at Strasbourg, has applied to the Minister of War to be allowed to join the army of the Rhine as a Surgeon-volunteer.

ONLY one case of diabetes has been observed during the past five years. It would appear that the practice of smoking opium, amongst so large a proportion of the population, has something to do with the rarity of this remarkable disease in its fully developed form. At least this is suggested by a consideration of these facts, in connexion with the recorded experience of M'Gregor and Pavy, who speak very positively of the controlling power of opium over this disease. —*Annual Report of the Hankow Medical Mission, by F. Porter Smith, M.B.*

LINIMENT FOR CHAPPED NIPPLES.—A solution of equal parts of tannic acid and pure glycerine should be applied by a pencil after each time that the child has sucked. The application is also good in chilblains.—*Union Méd.*, June 30.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Chemicus.—We do not believe that they would be accepted.

Not a Parish Doctor.—Such things are not matters of written law, but rather of good feeling. Of course the self-respect of a parish Doctor is to be considered as much as is that of one who is no parish Doctor, but, on the other hand, a man's position should not lead him to look for a slight where none was intended.

"The Life Assurance Bill, a Trap for the Unwary," is an attack upon the Bill of Mr. Stephen Cave, M.P., and can be obtained of Rixon and Arnold, Poultry, E.C.

Birmingham.—We are fully acquainted with the important alterations and additions which it is proposed to make in the bylaws of the General Hospital. The meeting will be held on September 21, when Mr. Oliver Pemberton will move the resolutions. We shall make some comments upon them in our next.

Interment in Large Towns.—To Mr. George Alfred Walker is certainly due the merit of doing away with the interment of bodies in London. He commenced his labours at a time when the question was most unpopular, and met with the most strenuous opposition not only of the clergy, but of the great body of nonconformist ministers. It was Mr. Walker who, at his own expense, cleared out the *débris* of bodies in Enon Chapel, and in Spa-fields Chapel also. The labours, responsibilities, and dangers which he encountered in this Hereulean task cannot be now estimated. Mr. Walker stood the heat and burden of the day, and succeeded in carrying out the object of his life. It was attempted at the time, and has been attempted since, to deprive him of the honour to which he is justly entitled. But history will do him justice as one of the greatest reformers of the age.

DISPENSERS IN NAVAL HOSPITALS.

We have been requested to publish the following:—

Admiralty, June 24, 1870.

Regulations relative to the Appointment of Dispensers and Assistant Dispensers in Her Majesty's Naval Hospitals at Home and Abroad.

The Lords Commissioners of the Admiralty are pleased to direct that the following regulations relative to the qualifications of candidates, and the pay and allowances of dispensers and assistant dispensers of her Majesty's Naval Hospitals at home and abroad, shall in future be adopted:—

1. That a candidate for entry as assistant dispenser shall make a written application to that effect, addressed to the secretary of the Admiralty.

2. As vacancies occur, candidates will be ordered to attend at the office of the Director-General of the Medical Department of the navy, observing that no person can be admitted as an assistant dispenser unless he possesses the minor qualifications of the Pharmaceutical Society; but dispensers or assistant dispensers in charge of stores must possess the major qualifications of the Pharmaceutical Society.

3. The age of assistant dispensers on entry not to be less than 20 years, or more than 25.

4. The daily pay of assistant dispensers will be as follows:—

Under 5 years' service.	Under 8 years' service.	Under 11 years' service.	Under 14 years' service.	Under 17 years' service.	Under 20 years' service.
5s.	5s. 6d.	6s.	6s. 6d.	7s. 6d.	8s. 6d.

and for every additional year an addition of 6d. per diem, till 10s. a day is reached.

5. When in charge of stores, an additional allowance will be granted—viz., at Haslar and Plymouth Hospitals 2s. per day, with the title of dispenser; and at other home and all foreign Hospitals 1s. per day.

6. An allowance of 6d. a day, in lieu of fuel and lights, will be granted to all dispensers and assistant dispensers, and they will be provided with quarters.

7. Superannuation will be allowed in accordance with the Superannuation Act of 1859, and a certificate of qualification will be required from the Civil Service Commissioners, under the terms of the Order in Council of June 4, 1870, published in the *London Gazette* of June 7, 1870.

8. Assistant dispensers will be liable to serve in any of her Majesty's Naval Hospitals at home or abroad, to which they may from time to time be appointed.

By Command of their Lordships,
VERNON LUSHINGTON.

How to Preserve Vaccine in the Tropics.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your number, April 23, Vaccinator asks whether vaccine will bear unimpaired a voyage to the Antipodes. As the question bears general import, as most of our Profession abroad must have suffered more or less by the usual mode of export of this and other articles, without entering into particulars as to time, effects of temperature, etc., the following may benefit some of your readers:—Suffice it to say preventative means are necessary to ensure the conveyance and retaining of vaccine, evaporants, and such like, for traffic to distances, India, China, Australia, for instance. Vaccine hermetically sealed in tubes is the best, and they require to be surrounded with cotton wool, and put into a glass tube and sealed down to prevent damage, and again enclosed in a tin case filled up with some saline—say Epsom salts. Chloroform, æther sulph., Richardson's spray, instead of being sent out as I have received it in tins containing sawdust or bran, will, by the bottles being inverted and surrounded with this salt, I find, by this means resist outward influence for a considerable time.

Brazil, June 9. I am, &c. INTERTROPICUS.

COMMUNICATIONS have been received from—

Mr. E. FORCE; Mr. FRANK GODFREY; Mr. T. E. ESPIN; Mr. E. LUDLOW; Dr. FAYRER; Dr. MILNER BARRY; Mr. J. WOODMAN; Dr. W. M. COOKE; INTERTROPICUS; Mr. W. J. SMYTH; Dr. BOGGS; Dr. J. W. KEYWORTH; Mr. OLIVER PEMBERTON; Dr. HARDIE; Dr. PHILIPSON; Dr. RAWDON MACNAMARA; Dr. ALEXANDER HARVEY; CHEMICUS; Mr. F. HOLTON; Dr. STALLARD; NOT A PARISH DOCTOR; Dr. W. MURRAY; Mr. J. COSTEKER; Dr. B. W. RICHARDSON; Mr. HAYNES WALTON; Dr. DAY; Dr. LAWSON; Dr. W. MARTEN COOKE; Mr. T. SPENCER WELLS; Mr. J. CHATTO.

BOOKS RECEIVED—

Report of the Aboo Lawrence School for the Year 1869-70—Cave on the Life Assurance Bill—Annual Report of the Pekin Hospital for the Year 1869—Report of the Kent County Lunatic Asylum—Report of the Belfast District Hospital for the Insane—On Deformities of the Mouth, by James Oakley Coles, second edition—Twenty-fourth Report of the Commissioners in Lunacy to the Lord Chancellor—Moore on Enlarged Tonsils—York Lunatic Asylum Report—Journal of Anthropology, No. 1—Parkes and Wollowicz on the Effects of Alcohol on the Human Body—New York Medical Journal for July, 1870—American Journal of Psychological Medicine, July—Fourth Annual Report of the Metropolitan Board of Health of the State of New York, 1869—Dr. Hardwicke's Report on the Health of Paddington.

NEWSPAPERS RECEIVED—

Nature—Australian Medical Gazette—Melbourne Age—Pharmaceutical Journal—Sunderland Evening Chronicle—The Shield—Edinburgh Evening Courant—Chemist and Druggist—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

July 23. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women 9½ a.m.; Royal London Ophthalmic, 11 a.m.

25. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

26. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

27. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m. West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

29. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 16, 1870.

BIRTHS.

Births of Boys, 1072; Girls, 1059; Total, 2131.
Average of 10 corresponding weeks, 1860-69, 1943·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	777	721	1498
Average of the ten years 1860-69	675·2	603·3	1278·5
Average corrected to increased population	...	...	1407
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	6	16	2	4	1	4	...	39
North ...	618210	4	8	20	1	6	8	4	...	55
Central ...	383321	1	5	12	...	3	1	...	...	31
East	571158	3	8	9	1	7	3	5	2	62
South	773175	2	4	28	3	11	1	5	5	72
Total	2803989	11	31	85	7	31	14	18	7	259

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·692 in.
Mean temperature	65·7
Highest point of thermometer	85·0
Lowest point of thermometer	52·0
Mean dew-point temperature	54·4
General direction of wind	W.S.W.
Whole amount of rain in the week	0·80

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 16, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending July 16.	Deaths Registered during the week ending July 16.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2131	1498	85·0	52·0	65·7	18·72	0·80	2·03
Portsmouth ...	122084	12·8	74	31	75·5	52·4	62·9	17·17	0·14	0·35
Norwich	81087	1·09	40	38	78·5	54·0	64·2	17·89	1·14	2·89
Bristol	171382	36·6	124	92	78·1	50·8	60·3	15·72	0·79	2·01
Wolverhampton ...	72990	21·5	42	22	79·4	49·1	62·5	16·94	0·06	0·15
Birmingham ...	369604	47·2	225	124	79·7	49·6	62·6	17·00	0·01	0·03
Leicester	97427	30·4	79	55	85·5	49·7	64·8	18·22	0·00	0·00
Nottingham ...	88888	44·5	40	52	81·7	47·0	63·7	17·61	0·13	0·33
Liverpool	517567	101·3	333	224	73·2	50·2	59·5	15·28	0·12	0·30
Manchester ...	374993	83·6	253	146	79·5	47·8	61·3	16·28	0·01	0·03
Salford	121580	23·5	99	51	78·4	46·9	59·5	15·28	0·02	0·05
Bradford	143197	21·7	84	70	81·0	51·2	63·1	17·28	0·00	0·00
Leeds	259527	12·0	132	138	82·0	51·0	63·7	17·61	0·01	0·03
Sheffield	247378	10·8	151	104	78·0	46·0	62·6	17·00	0·00	0·00
Hull	130869	36·7	67	22	...	...	..	...	...	...
Sunderland ...	94257	30·5	48	37	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	72	62	72·0	51·0	59·8	15·44	0·00	0·00
Edinburgh	178970	40·4	117	85	72·7	53·0	60·7	15·94	1·00	2·54
Glasgow	468189	92·5	309	186	67·8	47·5	59·1	15·05	0·26	0·66
Dublin (City, etc.*)	321540	33·0	167	105	71·7	46·0	59·0	15·00	0·54	1·37
Total of 20 Towns in United Kingd'm	7209603	33·8	4587	3152	85·5	46·0	61·9	16·61	0·28	0·71
Paris—Week ending July 16	1889842	242	...	1159	...	...	...	...	...	...
Vienna—Week ending July 9 ...	605200	167	...	...	...	...	...	...	...	...
Berlin—Week ending July 14 ...	702437	128	533	501	...	...	59·2	15·12	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·692 in. The highest barometrical reading was 29·92 in. on Thursday, and the lowest was 29·50 in. on Monday.

The general direction of the wind was W.S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

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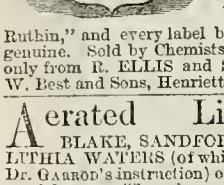

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ORIGINAL LECTURES.

ON VISCERAL NEURALGIA.

By Dr. ALBERT EULENBURG,
Lecturer on Clinical Medicine in the University of Berlin.

Neuralgia Hypogastrica.

This affection was first described by Romberg under the name "hyperæsthesia of the hypogastric plexus." It is characterised by pain in the lower abdominal and sacral regions, which is combined with a sensation of pressure on the rectum, bladder, and female genital organs, and which is frequently accompanied by radiation into the thighs and the parts supplied by the hæmorrhoidal nerves. The disease is most frequently met with in connexion with changes in the circulation within the pelvis; in men it therefore accompanies hæmorrhoids, and in women it is combined with hysteria and menstrual irregularities, particularly at the time of puberty. To this form of neuralgia belong several of these conditions which, amongst the public as well as amongst some Medical men, go by the name of "hæmorrhoidal colic" or "menstrual colic." The theory of the sympathetic nature of the disease Romberg bases on the changes of circulation and secretion of the respective organs, which changes he considers as consequent on hyperæsthesia of the hypogastric plexus. It is however questionable whether the local changes in circulation and secretion—especially the catamenial irregularities—do not precede the neuralgic symptom, and stand to them as causes.

With regard to the relation of these neuroses to the hypogastric plexus it must be stated that we know very little of the physiological functions of this plexus, particularly of its sensitive capabilities, so that an explanation of all the local symptoms cannot be given by it. According to some experiments made by Budge the sensitive and reflex nerves of the bladder and urethra appear to proceed partly along the tract of the hypogastric plexus; according to the experiments of Obermier, Frankenhauser, and Körner—which, however, are contradictory to some others made by Kehrel—the hypogastric plexus appears to contain all or at least the most important motor nerves of the female genital apparatus, whether however sensitive and reflex nerves to those organs are also contained in it has not yet been demonstrated. The track of these nerves is probably similar to that of the sensitive nerves of the vesical plexus, which, according to Budge, pass to the posterior roots of the lumbar and sacral nerves through the plexus hypogastricus and the rami communicantes.

With such uncertainty with regard to the series of symptoms which has been described as hypogastric neuralgia, and with the pathology and etiology of the affection still enveloped in obscurity, the main point therapeutically is to discover in particular cases any organic lesions of the female genitals, bladder, or rectum, and to counteract the effects of these. Besides this, the pain—like that of all other forms of neuralgia — may require the administration of palliatives.

To neuralgia of the hypogastric plexus, some other neuroses of the urino-genital apparatus ought to be added, which have been described by Romberg and others as hyperæsthesia of the spermatic plexus. To this seems to belong the *neuralgia of the urethra*, which is only observed in men. Further the amorous propensities may increase to an intense degree of hyperæsthesia (Romberg). This is frequently observed in women, and is exceptional in men. In this last mentioned affection the term hyperæsthesia used by Romberg is really justifiable; it is not a neuralgic affection in the strict sense of the term, but a real hyperæsthesia of the genital mucous membrane in the form of hyper-algia. The pain does not arise spontaneously in consequence of abnormal organic irritation, but occurs as an excessive reaction on external irritation, which in the physiological state does not induce pain, but only a general libidinous feeling. Here again must be mentioned that form of neurosis described by Gooch (1831) as "irritable uterus," by subsequent authors as "uterine neuralgia," the sympathetic origin of which is at least doubtful. Cohen is of opinion that it is a perineal ileo-lumbar neuralgia, to which vaso-motor neurosis of the uterus (congestion, hæmorrhage, secretory changes) has been added secondarily and dependent on the former. The opposite view that the changes in sensibility are consequent on primary disease of the uterus is, according to the same author, opposed to the order of appearance of the phenomena.

Spermatic Neuralgia.

As "hyperæsthesia of the spermatic plexus," besides the neurosis which has been just described, another form of neurosis affecting the male genital organs is given by Romberg and others under the name "irritable testis" (Cooper) or "neuralgia testis," which is characterised, on the one hand, by spontaneous paroxysmal pain in the testis and epididymis extending along the spermatic cord, and on the other hand by excessive sensitiveness to touch and pressure. Besides the neuralgic pain, there exists almost constantly a real hyperalgia of the testes, which may be so intense that the touch of the clothes, as well as any attempt at movement or change of position, also mere standing without giving support to the scrotum, is excessively painful. The paroxysm of pain is often combined with retraction of the testicles, in consequence of spasmodic contraction of the cremaster muscles. Sometimes the patient suffers from nausea and vomiting. Swelling of the testes and cord or other evident external changes, more particularly varicocele, are by no means so common as has been stated by various authors.

Some writers—Curling, for instance—have separated "irritable testis" as a form of hyperæsthesia merely, from the "neuralgia testis," which is accompanied by spontaneous paroxysms of pain. I hold the opinion that no reason for such distinction exists, because spontaneous pain and hyperalgia of the testes, as a rule, exist together, and both united form the disease called spermatic neuralgia. Concerning the seat of the pain, opinions differ in the same way as they do with regard to uterine neuralgia, whilst some authors—Romberg and Hasse—look upon the spermatic plexus of the sympathetic as the origin of the evil. Others place it in the cerebro-spinal nerve trunks of the lumbar plexus, as, for instance, Valleix, who considers the affection identical with that neuralgia ileo-scrotalis described by Chaussier (1803) and Cohen. The latter of these two thinks that it is a primary genito-crural neuralgia, to which, as in uterine neuralgia, a secondary affection of the vaso-motor nerves is added. The swelling and dilatation of the vessels of the testicle, therefore, according to Cohen, forms no primary causation, but a secondary effect, whilst, on the other hand, Hasse derives the neuralgia principally from dilatation of the veins (with or without varicocele) of the testicles.

Concerning the nerve trunks affected, positive evidence seems impossible: physiology does not inform us of any sensitive functions of the spermatic plexus, and pathology has not up to the present time afforded any facts for our guidance. Similar ignorance must be confessed with regard to the etiology of spermatic neuralgia. The disease occurs as a rule in young or middle-aged persons. Functional irritation and local affections of the generative apparatus of males, excessive venery as well as abstinence, onanism, gonorrhœa, chronic orchitis, epididymitis, and prostatis have been accused as causes. Spermatic neuralgia is, however, relatively of rare occurrence in connexion with the affections just mentioned, and when the connexion does exist, the bearing of the one disease on the other, as well as the relation of the primary local disorder to the secondary neuralgia, are quite unintelligible to us. Cooper and others assumed a central (spinal) origin to the affection in some cases. Against this assumption, it has been stated that peripheric lesions—castration, for instance—have sometimes a beneficial influence; but this objection does not to me seem valid in the face of the good results obtained by section of peripheric nerves in neuralgias of decidedly central origin and of other nerve trunks, as the trigeminal.

Neuralgia of the testis is as obstinate as it is painful and tormenting in all respects. Like other changes in the genital apparatus, it sometimes produces psychical reaction altogether out of proportion to the gravity of the disease, hypochondriasis, melancholia, and so on. The affection sometimes has remissions of long duration, but it never ceases entirely.

The treatment is somewhat experimental, the pathology and etiology being still obscure. Support of the testicles by a suspensory band gives relief from pain. Various remedies have been tried—tonics, iron, quinine; now cold douches, hip-baths, sea-baths; and now narcotics, arsenic, turpentine, and many others. The greatest relief has unquestionably resulted from hypodermic injections of morphia, which may be most efficaciously employed in the region of the spermatic duct. Some cases are on record in which marriage has effected a cure.

With regard to operative treatment, ligature of the spermatic veins, and subcutaneous incision of the tunica albuginea (Vidal), as well as ligature of the spermatic artery (Bardeleben), have in some cases acted beneficially, although no permanent effect resulted. Castration, sometimes urgently demanded by the patient, has in some cases effected a cure (Russell, Astley Cooper); in others, the disease recurred in the spermatic cord

or in the testis of the opposite side. It is very probable that the beneficial result of all these manipulations has been effected chiefly through a centripetal route, as the seat of the disease can scarcely be considered to be in the testicle itself. The same explanation perhaps applies to those cases in which, according to Curling, cauterisation of the pars prostatica urethræ has effected cure in patients who have at the same time suffered from spermatorrhœa.

LECTURES ON DERMATOLOGY,

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Lecture V.

II.—DISEASES OF FUNCTION AND APPARATUSES.

Mr. President and Gentlemen,—In pursuing my inquiry into the nature of the diseases of function and of apparatuses, the plan of my remarks may be traced on the accompanying table. I commence with aberrations of sensation and of nutrition, and in the next place bring under consideration, and in their turn, aberrations affecting the epithelium, aberrations affecting the hair-system, and aberrations affecting the secreting glands. An examination, however, of the table will make the intention of this arrangement sufficiently obvious, and will enable my readers to follow with facility an otherwise tedious detail.

V.—Aberrations affecting Sensation.

12. *Neurotic Affections.*

Hyperæsthesia.
Anæsthesia.
Dysæsthesia { Pruritus. / Prurigo.

VI.—Aberrations of Nutrition.

13. *Nutritive Affections.*

Dermato-xerasia.	Ekphyma papillosum.
Ichthyoides.	Cheloma *s.* Cheloides.
Saurioides.	Morphœa.
Kakotrophia.	Dermato-sklerosis.
Nævus cutaneus.	Striæ atrophicæ.
Akrochordon.	Spargosis *s.* elephantiasis
Molluscum areolo-fibrosum.	Arabum.
Dermatolysis.	Xanthoma.
Verruca.	Melanoma.
Clavus.	Angeiektasia.
	Angeioma.

VII.—Aberrations affecting the Epithelium.

14. *Epidermic Affections.*

Phytosis *seu* tinea tonsurans.
„ „ „ circinata.
Phytosis favosa *seu* Favus.
„ versicolor.

15. *Onychopathic Affections.*

Scabrities unguium.
Onychia.

16. *Chromatopathic Affections.*

Melasma.	Lentigo.
Chloasma.	Kyanochroia.
Ephelis.	Leukasmus.
Xanthochroia.	Achroma *seu* Albinismus.

VIII.—Aberrations affecting the Hair System.

17. *Trichopathic Affections.*

(*Hair.*)

Trichosis.	Poliothrix.
Spili.	Trichiasis.
Trichorrhœa.	Trichatrophia.
Madesis.	Trichoklasia.
Alopekia.	Phytosis tonsurans *seu*
Area.	Tinea.
Phalakrotes.	Trichosyphilis.
Trichodyschroia.	Trichopathia plica.

(*Follicles.*)

Comedo.	Phytosis favosa *s.* favus.
Tumores folliculares.	Folliculitis.
Cornua setosa.	Xerasia capitis.
Cornua.	Akne.
Tubercula miliaria.	Gutta rosea.
Tumores cystici.	Sykosis.
Papulæ corneæ.	Kerion.
Epithelioma.	

IX.—Aberrations affecting the Secreting Organs.

18. *Steatopathic Affections.*

Steatorrhœa.
Chromo-steatodes.
Asteatodes.
Molluscum *s.* Tuberculum adenosum.

19. *Idrotopathic Affections.*

Hyperidrosis.
Anidrosis.
Osmidrosis.
Chromidrosis.
Hæmatidrosis.
Hydroadenitis.

V.—Aberrations of Sensibility.

12.—Neurotic Affections.

The sensibility of the skin manifests several varieties of morbid alteration, which may all be referred to the three heads of hyperæsthesia or excessive sensibility; anæsthesia or loss of sensibility; and dysæsthesia, painful and perverted sensibility.

In hyperæsthesia the sensibility is sometimes exalted to so extreme a pitch, as to render the mere pressure of the clothes unbearable, and even sounds painful to the skin.

Anæsthesia is found associated with other kinds of disease, such as morphœa and elephantiasis, and may be more or less complete.

Dysæsthesia or painful sensibility presents itself in the form of *pruritus*, in which no organic change in the skin is to be detected, or associated with a kakotrophic condition of the integument. In the former state we call it simply pruritus, and pruritus may attack any part of the skin without any visible indication of its presence—in fact, as a mere derangement of innervation. We distinguish several situations in which simple pruritus is often very annoying and distressing—for example, pruritus ani, scroti, præputii, et urethræ in the male, and pruritus ani et vulvæ in the female.

Prurigo is a pruritus associated with an organic change in the tissues of the skin; it is a neurosis, and liable to paroxysms, and it is very much aggravated in character by the advance of age. Hence, a distinction into prurigo *mitis* and prurigo *senilis*. Prurigo mitis may occur at any period of life, but the eruption which is present is due to the secondary irritation of the skin caused by scratching, rather than to the force of the neurotic affection. Prurigo senilis is generally accompanied with more or less discoloration and hardness of the skin, as well as by a papular eruption excited by scratching, and also by lacerated streaks and abrasions of the skin.

VI.—Aberrations of Nutrition.

13.—Nutritive Affections.—Aberration of nutrition opens up to us an extensive and important field of observation and research, and examples of this pathological state are very numerous; the aberration being due in some instances to defect of nutrition; in others, to excess, constituting hypertrophy; in others, again, to arrest of nutrition or atrophy; and in a fourth series, to a morbid nutrition giving rise to alteration of structure.

Defect of nutrition of the skin is generally congenital; it may be hereditary; or it may become manifested during growth or at a later period of life. If you endeavour to realise the idea of a deficiency of nutrition of the skin, you will have to trace in imagination the consequences to the skin of a deficient vitality, a deficient circulation and innervation, and deficient formative and glandular function. In such a case the skin will be thinner than natural; it will be pale; it will be more or less hard and consequently wrinkled; it will be dry from the absence of its normal lubricating secretion; it will be rough from abnormal desquamation, and there may be present, also, the evidence of a want of symmetry with the deeper parts, especially the osseous system. Such a state of the skin as I am now describing, is, however, no fiction of the imagination; it is a stern reality, and will be recognised at once by any one who sees it for the first time by the description which I have now given. Its most conspicuous character of all is the general dryness, the parched state of the integument, and on this account I have named it dermatoxerasia or xeroderma; but another striking feature in its appearance has gained for it the name of *ichthyoides* or *ichthyosis*, from a certain resemblance between the scale-like conformation of the cuticle and the scaly covering of a fish.

Sometimes, with a dry and abnormally nourished skin, the sebaceous secretion accumulates on the surface, and breaks up into little compartments, corresponding with the area included between the lines of motion of the integument. These little masses, attracting dirt from the atmosphere, become more or

less dark in colour, and generally assume a deep brown or greenish tinge; they suggest very forcibly the armour-like covering of the saurian reptiles, and the skin so affected may be termed *saurioides* or *sauriosis*. Sometimes, by successive accretion, the scales become thickened and lengthened to the extent of producing short horny spines (ichthyosis cornea); hence we note two forms of sauriosis—namely, *sauriosis squamosa* and *sauriosis spinosa*. The body has been sometimes seen to be more or less completely covered with the scales and spines just described; the latter, fashioned on the area between the lines of motion of the skin, subjected to mutual attritiou and to the friction of dress, become rounded at the edges and ends, and polished on the surface, and have suggested an exaggerated comparison with the quills of the porcupine; hence the terms "porcupine men" and the no less extravagant scientific term "*ichthyosis hystrix*," or porcupine fish-skin disease. It is just possible that, in a protected situation, these spines, composed of epidermic exuviæ and sebaceous substance, may reach a length of half an inch or more, but, in general, they barely exceed a quarter of an inch.

In this same group of nutritive affections, consisting of dermatoxerasia with its more highly-developed forms ichthyosis and sauriosis, I also place an alteration of the skin, consequent on deficient nutrition or malnutrition, from whatever cause it may proceed. Dermatoxerasia is usually congenital, not unfrequently hereditary, and I have known it to be the sequela of congenital ekzema. But the *kakotrophia*, to which I now allude, is of accidental origin, dependent on exhausted nutritive power, and occurring in young persons, particularly of the female sex. At a time when freshness and beauty should be the prevailing characteristics of the individual, the skin, generally of the face, is yellow or discoloured, resembling parchment as nearly as skin, often wrinkled, and, in one word, kakotrophic. A similar state of the skin of the face is commonly associated with dermatoxerasia.

(To be continued.)

ORIGINAL COMMUNICATIONS.

PERFORATED ZINC IN THE MANAGEMENT OF AMPUTATIONS.

By Professor CLELAND.

For some years past I have found a roll of perforated zinc a thing extremely convenient to have beside one in surgical practice. It perhaps would not be too much to say that it may be made altogether to replace the use of pasteboard and wooden splints. It is probably better than wire gauze, which was recommended for splints a number of years ago by Mr. Startin; it is certainly cleaner, and I should think stronger, and more easily managed.

However, it is another purpose for which I have found perforated zinc useful, which I wish now to mention—uamely, the dressing of stumps. The contrivance itself is such a mere trifle that I should think shame to put it before the public, were it not that in time of war, when wounded men, with few comforts, are liable to be jolted along rough roads, the simpler the means which will give them any protection, the more likely is it to be capable of application. Suppose, then, that we have to deal with an amputation of the thigh; what I beg to recommend as an advantage in dressing is simply to take a strip of perforated zinc, about half a yard long and about the breadth of the stump, and fold it like a pair of sugar-tongs; then, having arranged the proper pads in front and behind, and leaving the lips of the wound bare, or only slightly covered, slip on the zinc so as to have one end in front and the other behind the stump, while the folded part is allowed to project some inches beyond it; and, lastly, secure the whole with a bandage.

The advantages of this procedure are three—First, the zinc acts to a very considerable extent as a protection; and if a patient on a comfortable bed may perhaps prefer the more bulky cradle, which is always getting in the way of the sound leg, on the other hand there are cases, as in the removal of wounded soldiers, where the cradle cannot possibly be used. Secondly, the zinc causes the pressure of the bandage to act in the desired directions. It was to obtain this object that it occurred to me to use zinc in dressing an amputation of the thigh, and then I noticed how useful it was. When a bandage is tightened round a limb, it brings the parts together from all directions; and when the Surgeon wishes the pressure to act principally in certain directions—as, for example, in front and behind—he places pads against the parts to be pressed on; but every one must have noticed that, especially in large amputations, those pads secure the desired effect very imperfectly, and sometimes require to be clumsily large to keep the deep parts of the wound in thorough apposition. But the whole success of the operation, and the quickness of recovery, are greatly dependent on perfect apposition; and small pads of lint, with the slightly yielding zinc over them, secure this important object. Thirdly, when the wound is doing well, when the deep parts are thoroughly in contact, and all foreign and decomposing bodies are absent, it is sometimes a great saving of annoyance to the patient, and trouble to the Surgeon, that the surface of the wound can be looked at and cleaned without undoing the bandaging. This, in the case of a circular or flap amputation, can be done by simply dividing the prominent fold of the zinc, turning the two parts a little back, and replacing them after cleaning the lips of the wound, and applying, if need be, a small quantity of some antiseptic application, to prevent any discharge from getting putrid after it has come to the surface.

Galway.

WHAT IS CHOLERA COLLAPSE?

By T. FARQUHAR, M.D.

Surgeon-Major, Bengal Medical Service.

Dr. George Johnson, in his valuable paper on the theory and treatment of cholera in India, recently published in the *Medical Times and Gazette*, notices a reply I made to a question by Dr. Murray, Inspector-General, Medical Department, Bengal, as to the theory of the action of cholera on the nervous system.

It is gratifying to find that this part of the subject is engaging the attention of physiologists in England. Dr. Johnson's observation of the hypertrophy of the muscular walls of the minute arteries, resulting from their continued overaction in cases of chronic Bright's disease, is surely a considerable step in advance in the study of abnormal action in these vessels. Do not these observations throw additional light on the physiology of the action of the cholera poison, which in some parts of India is now almost a daily source of anxiety?

On visiting a cholera patient there, as in Europe, our attention is arrested at once by the severity and peculiar character of the abdominal symptoms. The extreme distress there and the urgent call for relief, lead instinctively to the employment of large doses of opium as most likely to relieve the sufferer. On the other hand, the prostration of the patient, the feeling of sinking at the pit of the stomach, the failure of the pulse, etc., all lead to the belief that stimulants are urgently required, and form the idea of paralysis of the sympathetic as the expression suitable to the state of the nervous system. These impressions and consequent treatment are, it is to be feared, unfortunate for the patient, as they lead to remedial measures some of them otherwise than successful in the treatment of cholera. Ignorant of the statistics afforded by Dr. Murray and others, which prove this, we had great excuse in continuing to try these measures, which we know are successful in other diseases with similar symptoms. Driven now to leave them off we do well to sit down again to the study of the disease and help each other more successfully to investigate it.

What, let us ask ourselves, are the constant symptoms in cholera, for by attending to them we are most likely to understand the disease; and if we succeed in convincing ourselves as to what tissues are more directly effected we will be less likely to waste our strength in trying remedies at random?

They are not, let us premise, abdominal as far as vomiting and purging are concerned. They are not paralytic, they are not cramps, or a dozen other accessory symptoms that might readily be enumerated as frequent in cholera.

What then are constant symptoms? There is pallor or lividity of the skin. There is rapid shrinking of the cellular tissue, with pinched face, and eyeballs shrunk into the sockets. There is death-like chilliness of the body; the breath becomes cold, the tongue is cold, the breathing is weak. Heart sounds are feeble, the pulse begins to grow thready and weak, finally disappearing at the wrist and in the larger vessels. Secretions of bile and urine cease. Blood, when drawn, is black and tar-like. Mind is clear almost to the last. Muscular force, though

lessened, is yet considerable in relation to the fatal symptoms present, and the near approach of death, which closes the scene.

After death there is blood in the pulmonary vessels and right side of the heart. The left side of the heart and arteries are empty. There is fulness of the vessels of the intestines, and fluid, I believe, or watery stools in them.

If the patient is to recover, which he often does, from the most fatal-like symptoms, the heat of the body gradually returns, the pulse in the larger arteries is felt, the pinched face and sunken appearance of the eyes are less noticeable, the body seems to fill out, the colour of the skin returns, the tongue and breath become warm, and, last of all, bile appears in the liquid motions, and the secretion of urine is re-established. These are the symptoms of what we call collapse, a state of the system frequently seen from other causes, as irritant poisons, putrid meat, etc. In ague, again, from malarious poisoning we now and then come across cases which, in the cold stage, have such similar appearances that they can with difficulty be said not to be cholera.

These symptoms, which, as in the cold stage of ague, last for a limited time, are more or less indicative of the spasmodic contraction and subsequent dilatation of the pulmonic and systemic capillaries. While in their contracted state we see the interruption to the flow of blood and its non-aëration producing all the symptoms of collapse, and on their dilatation the evidence of what we call reaction. In this belief we are established by the similar physiological effects observed to result from galvanic irritation of the sympathetic on the one hand, and division of the nerve on the other.

This spasm of the vessels is, then, what we often alone see in a case of true cholera. Presumably, this is what we have principally to deal with in this disease. If we were able to overcome this contraction and allow the circulation to go on through the pulmonary and systemic capillaries, we would keep the patient alive till the poison passed off by some of the secreting organs, or exhausted itself in the system. We have analogous instances to build this hope on in cases of poisoning by opium and snake-bite. If by the bastinado, or walking the patient about, you keep him awake for a given time, he recovers. If he is neglected, and allowed to sleep, he passes rapidly into a state of coma, from which there is no waking.

It would be certainly better if we could neutralise the poison, as we do in the case of acids, etc., or purge the mass out of the body as we do of rotten food in the stomach. It would be well, also, if we could act on it, as we nowadays do on ague by large doses of quinine, or by ipecacuan in dysentery. Let us not lose heart in this matter, but hope that an antidote may some day be found for cholera, and may not the experience of the last two drugs lead us to believe that even now we may have the specific by us, when we remember for how many years these medicines were in our possession, but only lately were their value and doses discovered in India.

In speaking of treatment, it is far easier to say what to avoid than what to do. Dr. Murray's collection of Indian experience teaches one great lesson—viz., that we have culpably neglected, up to the present time, to institute a regular system of intercommunication on the subject of the treatment of cholera. Each individual or small group of men has followed different plans, based on individual theories, many ignorantly trying methods of cure that have notoriously failed in the hands of their predecessors. What we want now is, an organised system of positive information, based on carefully observed statistics, and some central authority through whom information on particular modes of treatment can be obtained. One thing most of us in India have learnt, and that is to avoid large doses of opium and stimulants in collapse. The opium has seldom if ever, at the time, the sedative effect we desire to see from it in ordinary doses, and is apt to be repeated and accumulate in the bowels. So that when we look for recovery we see death, with painful evidence that opium is the determining cause of the event. Stimulants, if not at once rejected, are followed by marked exacerbations of the severer symptoms, especially that tossing restlessness so markedly connected with the want of aëration of the blood; and in the stage of reaction, if it occurs, the mischief caused by them seems to be as great as if brandy was poured into the system of a man in the hot stage of intermittent fever, or suffering from an attack of heat apoplexy.

We each and all have our favourite remedies in which we believe. There are few, however, of these that we can enumerate with great confidence. A gentle aperient guarded by carminatives and a few drops of laudanum seems to act like a charm, however, in relieving the many who suffer from disordered bowels and the malaise of epidemic cholera. Indeed, in most epidemics, the numbers attacked with these milder forms of disease and who recover are so numerous, that it may be said few of the population in the affected locality escape. In the enumeration of deaths to sick, cholera may thus be said to be less fatal than several other more common but less dreaded diseases. Large mustard poultices, covering the whole of the abdomen and loins, are invaluable, probably by exciting the capillary circulation, and relieving the abdominal engorgement and distress. Temporary benefit is seen to follow hot baths, warm saline injections, whatever, indeed, appears to relax the capillary arteries. Would that this their action would continue. Shampooing, with stimulant embrocations, give great relief; but to further enumerate such measures here would be useless.

One point not sufficiently noticed is the existence of choleraic diarrhœa observable sometimes ahead of the first pronounced case of cholera, and it may be certainly concluded that the disease is plentifully about in this mitigated form, while the severer cases are occurring. This diarrhœa is a fruitful means of propagating contagion, and in the unobserved wanderings from place to place of the sufferers, we have a ready explanation of the apparently independent outbreaks of true cholera cases.

In India what are called sporadic cases are so little liable to spread, that they do not demand any special sanitary measures.

When, however, as in the late terrible loss of life at Peshawur, cholera is on the move, the cases occurring are then known to be part of an expected epidemic attack, and the sooner all precautionary measures are taken the better. It is so far satisfactory to know that instant sanitary advice was given to the authorities there, and if delay occurred in carrying out the removal of the troops, executive or political difficulties were to blame.

We are warned from India to look for an advance westward of the present epidemic, and surely it becomes England under the circumstances to put and keep her house in order.

7, Connaught-square, W.

CASES OF HIP-JOINT AMPUTATION AT THE MAINPURI SUDDER DISPENSARY.

By J. W. TYLER, M.D., Superintendent.

Case 1.—Khayall, aged 16 years, caste Hindoo, shopkeeper by trade, was admitted into the Mainpuri Dispensary on March 17, 1869, for compound fracture of the left femur at the upper third. His right leg was broken, and both forearms were fractured. The accident was occasioned by a fall from a tree. On admission into Hospital he was in a very low state. There was hæmorrhage from the wound in the thigh. Wounds washed. Cold, bandage, splints, etc., applied. ℞ mist. stimuli ʒj. every hour. Sago diet.

April 3, 1869.—The boy's health improved; the fractured forearms are uniting; no pain. Right leg union not quite established. Left thigh: The wound is unhealthy; the discharge is fœtid and semi-purulent; opening enlarged; both ends of bone are black and rough to the touch; pulse is weak and inclined to be quick; no appetite; is free from fever, but is restless. Carbolic acid dressing; starch bandage to both forearms; splint and bandage to leg. ℞ mist. cinchonæ ʒj., acid. nitric. dil. gtt. v., tinct. cinchonæ gtt. x., m. f. haust., t. d. s. Brandy ʒji. daily, beef-tea Oj.

4th.—Is feverish this morning, wound in left thigh is very offensive. Discharge unhealthy. Had no sleep all night; is very restless and anxious this morning. Omit medicine, ℞ liq. opii. sed. gtt. xv.; sp. æth. nitrosi gtt. xv.; liq. am. acetatis ʒ jss.; inf. cinchonæ ʒ j.; m. f. haust.; every 3rd hour. Continue diet.

5th.—Had fever all last night, with severe shivering fits; is looking anxious; pulse quick and feeble. The wound is most offensive, and the discharge is unhealthy. The only chance of life is removal of the limb from the joint by disarticulation.

9 a.m.—Chloroform administered by Hospital-Assistant Sheik Hagan. The operation was performed with little or no loss of blood; several bleeding vessels had to be secured, the femoral vein had to be attended to; wound washed out with carbolic acid lotion. ℞ mist. stimuli ʒ j. every quarter of an hour; sago and brandy; beef-tea, and ammonia injections.

5th.—4 p.m.: Is very quiet; complains of pain at the seat of injury; his other limbs are doing well; the pulse is better now than it was in the morning. Continue treatment.

6th.—8 a.m.: The diseased limb when removed was

examined by the Hospital assistant. He reports the upper fractured end, extending up to the neck of the femur, as being quite soft and discoloured; the medulla was infiltrated with a thick purulent substance, having a nasty gritty feel, and having a most offensive smell.

Symptoms.—Had very little sleep; was restless from pain; no bleeding; pulse quick; has an anxious look about him. ℞ liq. opii sed., ♏ x., to be added to each dose of stimulant mixture. Beef-tea and brandy in small quantities every half hour. Vespere: Slept well during the day; is feeling refreshed; continue wine and medicine.

7th.—6 a.m.: Had a very good night; is free from pain; no bleeding; no discharge from the wound; both forearms are firm; union perfect; right leg not so well. Continue treatment.

8th.—7 a.m.: Wound to be dressed with carbolic acid lotion; it is looking well; not much discharge; the ligatures are firm; slight swelling at groin. Continue medicine and treatment.

9th.—7 a.m.: There is a small discharge at the wound; healthy pus; was very restless all night; is quite exhausted this morning; in a cold sweat; eyes sunk; pulse hardly perceptible; will not take nourishment. Complains of difficulty in breathing, and has a severe pain in his chest. Crepitant ronchus audible over left infra-mammary region. Heart's action feeble. ℞ ammonia and bark; friction to the chest, and strong beef-tea and brandy injection. 12 noon: Died just now. His mother will not permit an examination.

Case 2.—Kehree, aged 20 years, caste Hindoo, cultivator, was admitted into the Mainpuri Dispensary on April 12, 1869, suffering from a tumour on the right knee, extending up to the middle third of the thigh, with a smooth and pale surface. Superficial vessels enlarged and distinct; forty-two inches round the largest circumference. Right limb about half the size of the other. Hard to the touch, painful and unequally elastic to the feel. Patient states that it commenced twelve years back, when he was a child. For the last three months he has been subject to intermittent fever, and the tumour has increased in size rapidly. There is no motion in the joint. He is pale and emaciated. Pulse weak. Appetite fair. Bowels regular. Ordered tonic powders ter die sumen. Cod-liver oil to be rubbed into the body. Full diet and beef-tea. Wine ʒj.

July 22.—Complains of great pain in the tumour; increasing at night; otherwise improving in health. Tapped at the outer side; little or no discharge. The trocar did not proceed far, as the tumour is hard and tough—no doubt osteo-sarcoma. Strapping and bandage. Continue tonic powders. Good wholesome diet. Wine ʒiv.

August 9.—6 a.m.: Since last report there has been no improvement. The tumour is no smaller, the hardness is as great, and, since the last week, the pain has increased, especially at night, occasioning loss of rest. Is anxious to have the limb cut off. After careful examination of the tumour, and having consulted with Dr. Beckett on the subject, it was decided to remove the limb by disarticulation from the hip-joint, as the shaft of the femur is implicated and the soft parts on the posterior surface of the thigh unhealthy and ulcerating. The patient being put under chloroform by Hospital Assistant Sheik Hagan, I commenced to remove the limb by flap incision, passing the knife midway between the anterior superior spinous process and the great trochanter, cutting freely and pushing the catlin through the opposite side near the anal orifice, then carrying it downwards a good way, then forwards, so as to secure a large anterior flap as the posterior surface of the limb is unhealthy, and will not afford of any muscular covering. The joint is exposed with the knife cutting the capsular ligament; having the knee depressed just then the round ligament was ruptured; the head of the femur being raised forwards, the knife cuts behind downwards and backwards for a very short way—in fact, ending abruptly to prevent any unhealthy covering in the posterior flap; the anterior flap being well formed and quite sufficient to go well behind. The flow of blood was free during the operation. Patient's pulse is barely perceptible. ℞ ammoniæ sesqui-carb. gr.x., in aquæ ʒjss. m. f. haust. statim. Ligature applied; wound dressed with carbolic acid lotion. ℞ mist. stimuli ʒj. every half-hour, beef-tea and brandy every hour. Vespere: The pulse is weak but distinctly perceptible; no bleeding; tongue moist; has taken his beef-tea and brandy regularly.

10th.—6 a.m.: Is feeling better. No more pain. Slept well. The wound is looking well. Continue mixture and diet.

11th.—Wound to be dressed to-day. Slight discharge, which is rather bloody in appearance. Carbolic acid lotion. Continue treatment and diet. 3 p.m.: On being lifted up on the bed-pan, there was an oozing of blood from the wound. On removing the dressing, there was a large clot of blood found at the surface of the wound. I cut away the sutures, and opened out the flaps; found a small bleeding vessel oozing, which I ligatured, then brought the flaps together by horse-hair sutures (four-fold), and dressed the wound with carbolic acid lotion. The patient was most troublesome, and had to be put under chloroform.

12th.—No more bleeding; healthy smell; feels comfortable. Would like a little solid food.

19th.—From last report the patient has gradually improved; the wound is uniting; three of the ligatures came away this morning; the discharge is healthy; no fever; had a fair appetite. Omit stimulant mixture. Full diet. Beef-tea and brandy.

23rd.—Wound healthy; the discharge is small and free from smell; uniting regularly. Caustic lotion to edges of wound. Dressing of carbolic acid lotion. Full diet. Beef-tea and brandy.

September 1.—Wound nearly healed; ligature of the femoral not yet removed; is quite firm. Very little healthy pus oozing from the wound. Putting on flesh; is feeling very comfortable. Has good night's rest; has a fair appetite, and is altogether happy. Continue diet.

4th.—Ligature still firm; wound otherwise healed; just a wee bit of oozing from where the ligature hangs out. Had his picture taken this morning. Cod-liver oil to be rubbed into the body twice daily. Increase the brandy to ʒiv. during the day.

11th.—Wound nearly healed; no more pain; sleeps well; is improving in appearance; has a great appetite; is desirous of going home to his parents; ligature came away this morning. Continue diet.

12th.—The cod-liver oil is doing him good. Continue the application. 4 p.m.: Is crying to go home, and as his wound has healed he might be allowed to go.

13th.—Discharged as cured.

Remarks.—In the *Medical Times and Gazette*, vol. ii. page 697, of 1868, my first case on "Disarticulation at the Hip" is recorded. Since then I have operated twice; one ending fatally, the other making a good recovery. The inclosed photo-

Of 1867. Of 1869.

graph was taken on September 4, 1869. It has both successful cases in view; the wound in Kehree is not quite healed; the ligature is hanging from the stump. On September 11 the ligature came away, and on the 13th he was discharged cured; that is thirty-three days after the operation. I consider the entire removal of the limb by disarticulation as the only safe mode of operating in such cases, and the result is very satisfactory, especially in the last, where no doubt the patient was suffering from malignant disease of the bone.

THE mistake too commonly made hitherto regarding hill climates, is expecting them to cure diseases which they are only calculated to prevent. The true value of the climate of the Indian hill ranges and elevated regions is preventive, not curative. There are many maladies either not benefited or actually increased by hill climates.—*Results of Sanitation in India, by W. J. Moore, L.R.C.P.*

SCIATICA: ITS IMMEDIATE RELIEF AND RAPID CURE BY HYPODERMIC INJECTION OF MORPHIA.(a)

By HENRY LAWSON, M.D.,
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(*Continued from page* 63.)

Of the forms of dynamic electricity, that which is most often, though not most scientifically applied, is the Faradic. Faraday's machine—the induction coil—enables a small battery (a single Smee's or bichromate cell) or an arrangement of magnet to develope a very intense electric vibration—the power depending on the length and character of the wire in the coil—which, however, has these peculiarities; firstly, each individual vibration is momentary, and each succeeding one differs, as to the direction in which the current passes, from its fellow.

By the induction coil, we are enabled to produce a series of rapidly successive currents of a force(b) (therapeutically speaking) which can be graduated by means of a contrivance that practically reduces the extent of the coil.

This used to consist in withdrawing the soft iron bar from the coil, and now consists of a tube of copper closed at one end, and which, sliding over the coil, allows us to bring as much or as little of it into action as we please.. It will be well then, to bear in mind that, whether we use what is called a volta-induction coil, or a magneto-induction coil, we are in each case employing Faradisation, and that while applying the instrument, we are causing two currents passing in opposite directions, and rapidly alternating with each other, to traverse the parts of the patient included between the two poles.(c)

Now, there is a further point in regard to the application of Faradisation, which is of importance in the treatment of disease. It is a matter of considerable moment how the electricity is applied. It may be so contrived, as that the current is, so to speak, split up, and distributed over a considerable surface, or caused to penetrate the skin, and then affect the muscles. My experience of Faradisation in sciatica leads me to oppose very decidedly the use of the ordinary conductors—the brass tubes filled with moistened sponge. When in a case of severe sciatica, a case in which locomotion has became painful, and the limb is kept constantly flexed, Faradisation is used in this way, the result is most baneful. The (in both senses) irritable muscles are according to the strength of the current, thrown into violent contraction, and the patient is left in excruciating agony for several hours after the operation. The only—so far as I know—admissible method of applying Faradisation in sciatic cases, is that in which a good sized pair of metallic brushes (such as are now sold with every Medical induction coil) are employed as conductors; these so distribute the current as to affect but slightly the subjacent muscles, while they produce a great deal of surface-irritation and hyperæmia. As to the extent of the coil to be used, or in other, and more popular language, the strength of the current to be administered, that must be absolutely left to the discrimination of the operator, who should invariably begin with a feeble current, and increase it gradually up to the point of endurance on the part of the patient. Some persons have an epidermis highly sensitive, while others have a skin which contains such a mass of corneous non-conducting material, that it may fairly be called a hide. In no case should the application be persisted in for more than ten minutes at a *séance*, and though in course of time it may be used three times a day, it will be advisable to limit the application at first to once in the twenty-four hours.

A great deal is said and written about the part to which the positive and negative poles are respectively to be applied. I must say I think there is nothing to warrant the belief that there is—in cases where metallic brushes are used as conductors—the least difference therapeutically whether the positive pole is placed in one position or another. I am disposed to think that the same holds good too in regard to application of Faradic electricity in all cases, but of this I shall say more on another occasion.(d) It seems to me therefore (but I shall be glad to know the opinions of those of my Professional brethren who have considered the subject on this point) that the Medical man who is about to apply Faradic electricity to the treatment of sciatica need not trouble himself about either primary or secondary currents or about positive and negative poles, but need simply apply the brushes to the limb in the following manner:—The brushes should have the wires expanded fanwise. Then, one being placed above, near the sciatic notch and the other at about the junction of the middle and lower third of the thigh in the direction of the sciatic nerve, one brush should, while firmly pressed against the skin, be made to approach the other, either being kept fixed. After a few brushings the local effects will exhibit themselves, and the application should then be suspended.(e)

It may perhaps appear singular that I should have entered into such details concerning a therapeutic method which I cannot hopefully recommend in the cure of sciatica, but it is, nevertheless, true that my opinion of Faradic electricity in these cases is that it may be either extremely injurious or very slightly beneficial. Ere I had learnt practically the sad consequences of applying the induction current so as to contract the muscles, I tried this mode only. Subsequently I employed the plan already stated. The result was generally *nil;* but in some few cases, just those kinds in which liniments proved useful, it was alleviative. Still, as I doubt not that electricity will be one of the great Medical engines of the future, I have thought it right to say all I had got to say on the subject even of Faradisation.(f)

Galvanisation or the use of the continuous galvanic current has long been used, and with varying success as to the treatment of sciatica. Remak spoke of the results of this mode of treatment in such laudatory terms that his cures appear to have been little short of miracles. Other therapeutists, and among them not a few English Physicians, have also tried galvanisation but they have not reported so favourably of its effects. I have experienced the effects of the continuous current myself and I have watched its results in some of my patients, and I am prepared to say that we have in galvanism a remedy which, under other conditions than those under which it is now employed, will prove most valuable in the future. I do not in the least doubt the pain-relieving power of the current from the galvanic battery. I have felt it in my own case and have seen it in the case of patients, but I must also say that the difficulty of applying the current, owing to the densely non-conductory character of the skin, the troublesome nature of the operation, the almost impossibility of keeping up a constant current for months, and our ignorance of the relative physiological merits of what are called intensity and quantity and of the therapeutic difference between a single huge cell with large surface and a large number of small cells, all render the employment of galvanism in an affection like sciatica more interesting to the scientific Physician than beneficial to the

(a) It may be as well to state that in advocating the method of treatment described in the following article I lay no claim whatever to originality. I merely give the results of my experience of a remedy which is as simple as it is effective. The application of the syringe to the hypodermic method we owe, I suppose, to Hunter and Wood. The hypodermic administration of morphia in sciatica was urged by Dr. Blakiston in these pages nearly fifteen years ago. It is too much the custom now-a-days to father upon a writer the discovery of a remedy or plan which he has merely taken secondhand from another, but which he may have been more successful than his predecessor in popularising; and writers themselves too frequently encourage the mistaken inference. This has happened so often of late that one almost despairs of that moral regeneration in Medical writers which leads to the discrimination between reticence and candour.

(b) I believe that there are still a few Physicians who hold to Duchenne's doctrine of a difference physiologically between the primary and secondary currents of the inductorium—*i.e.*, the current from the thick and that from the thin wire. For myself, I believe that M. Becquerel satisfactorily demonstrated the absurdity of this idea by showing that, owing to the difference in the diameters of the wire, there must be a corresponding difference of tension between the currents, and that this was what Duchenne mistook for a difference of physiological qualities between the two. Holding this view (and in order, also, to render the subject as intelligible as possible), I have refrained from making use of the terms primary and secondary currents.

(c) It is also necessary to state that in some Faradic machines—such as the magneto-induction coil of Mr. Browning, of the Minories, described a couple of years ago in these pages—the two currents are caused by a commutator to pass in one direction. A fact, too, worth further development is that, by altering the rheotome, the duration of each current is increased or diminished.

(d) This idea which is founded on clinical observation receives, I should imagine, some confirmation from the fact that the currents are, at regular intervals, passing in exactly opposite directions.

(e) As the result of my experience I may say that there is positively no therapeutical difference between Faradisation produced by the volta-induction coil and that of the magneto-induction coil. I mention my opinion on this point because I am aware that some Medical men think otherwise. It is remarkable, too, that according to the researches of MM. Lenz and Jacobi the laws which regulate the force produced by the two forms are actually identical.

(f) Though I have no faith in Faradisation as an anodyne in sciatica, I may mention a curious fact which recently on two occasions came under my notice. In two cases of severe facial neuralgia affecting the superior division of the fifth, one of the conductors of the Faradic machine was placed on the second (or middle) division, and the other toward the extremity of the branches of the superior division, and the result was immediate and decided relief.

patient. I would not have it supposed that I deny galvanism to be a remedy in so-called rheumatics, but when we have—as in hypodermic injection of morphia—a safe, certain, rapid, and convenient remedy of another kind we must not resort to one which, however attractive to the therapeutist is really of not much practical use to the patient.(g)

I shall not attempt the Herculean task of describing the various forms of galvanic batteries now in use, but would merely remark that, besides the ordinary combination known as Daniell's, of which from 70 to 100 cells are generally employed for Medical purposes, several convenient forms, consisting of fewer cells of much greater individual intensity, have of late been offered for sale by the English instrument-makers, and in the present phase of electro-therapeutics, the physician must absolutely be left to his own choice.(h) Some are in the habit of attaching a galvanometer to the battery, and I believe that of these not a few imagine this apparatus to be a sort of gauge of the therapeutical strength of the combination, this being, they fancy, indicated by the deflexion of the needle. It is needless to tell the student of *physics* how absurd is any notion of this kind, but it is necessary to inform the student of *physic* that in electro-therapeutics the galvanometer is of no real use. We want some handy means of estimating the exact intensity and quantity of the current at any time produced by our batteries, but, unfortunately, the method which can be used for one of these purposes(i) is too complex for Medical Practitioners. The Physician's best guide, though it is at most an inconstant one, will be the sensation produced when one pole is placed in the hand and the other is brushed lightly along the skin of the wrist.

In applying the galvanic current, the patient should recline on a couch, with the hip and outer side of the affected limb exposed and uppermost. The sponges of the conductors being then moistened, one should be applied to the skin just above the point of exit of the nerve from the trunk, and the other over the seat of the nerve at about the commencement of the lower third of the thigh; if the skin be, as it often is, of a tough character, it will be well to apply for twenty-four hours previously, a small cold-water dressing over the parts against which the poles are pressed. By this means the skin becomes saturated with water, and is thus made a better conductor.(k) But it may be asked, does it matter whether the positive pole is placed above or below? and this is, of all questions in electro-therapeutics, the one, perhaps, that on which the evidence forthcoming is least satisfactory, owing to the way in which the experiences of different workers conflict. My knowledge is certainly a very limited one, which I hope to enlarge now that an electrical room is about to be established at St. Mary's Hospital, but so far as it extends it teaches me that the inverse, and not the direct current, is the one which produces most relief in cases of sciatica. The galvanic current, being supposed to travel from the positive towards the negative pole, we may roughly define the inverse current as that in which the current is supposed to travel towards the central nervous system, and the direct that in which it travels towards the periphery.(l) Now, when first I applied the galvanic current, I imagined that the most natural method was to apply the positive pole near the root of the nerve, and the negative below. My readers will then judge of my surprise when I found that this plan, both in my own case and in that of others, while it apparently gave some ease during the operation, appeared to intensify the pain for hours subsequent. I next adopted the inverse current; I placed the positive pole below and higher up, and the negative on the skin near the exit of the nerve, and I found that this resulted in the production of more ease than any other plan. Now, why this should be, must, I fear, in the existing state of therapeutics, remain a mystery, but I am disposed to regard it as a fact, and I shall be very glad if some of my readers will give the plan a fair trial, and will communicate their results to these pages. I am aware that Remak gives very elaborate instructions as to the conditions under which the negative pole is to be applied to the painful point, but no one, I venture to say, but Remak himself could(m) have estimated these conditions properly.

As I have already stated, the relief afforded by the continuous current, whilst it is unquestionable and immediate, is neither of long duration nor of great extent. For some few hours the limb feels somewhat "deadened," so to speak, and the suffering is certainly more tolerable, but this condition of things does not last long, and the pain is even under the best circumstances not entirely banished. If the hypodermic injection could not be employed, then I should say that our most useful remedy for sciatica was the galvanic current, but when I compare the two plans, when I think of the difficulty, nay the almost impossibility of administering electricity at the patient's residence, and of the tedious character of the operation, and when, on the other hand, I know how sure, safe and expeditious is the subcutaneous remedy, I am bound to say that galvanism, while it should still be used (in special cases), is really of little value in the great majority of cases of so-called rheumatics.(n)

(To be continued.)

(g) I have no personal knowledge of the therapeutic value (in such cases as sciatica and brachyalgia) of those ingenious chain batteries of Mr. Pulvermacher which are regularly worn upon the patient's body, but I should think that they must be productive of benefit while they would certainly not be troublesome or difficult to manage. *A priori*, I should fancy that a current of low chemical power, but with just sufficient tension to enable it to secure its constant and prolonged transmission through the affected parts, would be likely to do much good, and I mean to give the subject attention.

(h) Such are the Stöhrer's battery, sold by Pratt, which consists of a few cells of similar form to those used in the inductorium of the same maker, a battery sold by Messrs. Weiss, and the handy and cheap galvanic chains of Mr. Pulvermacher, in which, owing to the small size and great number of the elements, the current is of very high tension. Of cheap and constant galvanic cells may be mentioned the Menotti sand battery, and the excellent *Leclanché* cell.

(i) Thanks to Dr. Matthiessen and the British Association, or B.A. unit.

(k) This ingenious and useful plan was suggested to me long ago by Dr. C. B. Radcliffe.

(l) This, of course, would only apply to a motor nerve, but it will answer my purpose for the present.

(m) It is very easy to speculate, but very difficult to establish general laws; still I cannot help thinking that the anodyne effect of the current applied as above is explicable on Dr. Radcliffe's law of the action outside the positive pole; and further, that it tends to support my conjecture that the nerve-ends, and not the trunk, are affected in sciatica.

(n) And in severe cases it would simply be cruel to ask the patient to come to our consulting-room.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

EPITHELIOMA OF THE TONGUE REMOVED WITH THE ÉCRASEUR.

(Under the care of Mr. ERICHSEN.)

Samuel K., aged 74, a sailor since 14 years old until 7 years ago, was admitted under the care of Mr. Erichsen on May 23, 1870, with epithelial disease of the tongue. About three years previously he had noticed a little pimple on the forepart of the left border of the tongue. This gradually increased until a few days since when it was touched with caustic by a Surgeon. Up to this time the mucous membrane had been unbroken, but now a small ulcer was formed, which at the date of admission presented irregulary raised and everted edges. The surface of the tongue in its neighbourhood was clean, red, and inflamed, the rest of the dorsum being coated with a thick yellow fur. There was but little induration of the tissues around the sore. A remaining cluster of three sharpish teeth opposite the ulcer had clearly acted as the irritating cause of the mischief. The appetite was good but mastication of solid food caused great pain. Articulation was also much impeded. The man remained under careful observation during two or three weeks, and then as the induration was notably extending it was determined to remove the diseased portion of the tongue. Chloroform having been administered the tongue was drawn forward and secured by two ligatures passed through its substance. A notch was then made through the mucous membrane at the tip of the tongue just to the left of the middle line and another behind the indurated part at a point about the middle of the left border of the tongue. The wire loop of an écraseur was then put round the tongue at this part, passing through the notches above described, and the included portion removed, the handle of the instrument being turned once every half minute. Two of the larger arteries cut across were ligatured, and the subsequent oozing stayed by sucking ice. The mouth was frequently washed with Condy's fluid, the ligatures came away on the seventh day, and the man was discharged cured with good articulation and capital general health on June 25, seventeen days after the operation.

THE MIDDLESEX HOSPITAL.

OPERATIONS.

REMOVAL OF PORTION OF LOWER JAW FOR MALIGNANT DISEASE, AMPUTATION OF THIGH, AND CURE OF NÆVUS.

(By Mr. J. W. HULKE.)

On Wednesday, July 20, we saw Mr. Hulke operate on two or three interesting cases at this Hospital. The first patient brought in was an old man who, some eighteen months previously, had had what he termed a cancer cut away from the lower lip near the right angle of the mouth. Six months later he began to be conscious of an enlargement about the gum outside the lower jaw on the right side, accompanied with pain, and gradually, but surely, increasing. When he came to the Hospital on July 18, there was sufficient swelling to cause considerable deformity of the face. A healthy supple scar running down from the angle of the mouth marked the position of the first operation. One felt a very hard tuberous mass attached to, and apparently springing from, the outer portion of the right half of the mandible, and reaching nearly to the ramus. The alveolar margin was quite regular. There was no projection on the inside of the jaw, neither skin nor mucous membrane were ulcerated, but at one point the skin could not be moved over the mass, although it did not seem to be thickened. There was also, at least, one gland below the jaw enlarged and indurated. As the only possible means of relief, Mr. Hulke determined to remove a considerable portion of the jaw-bone, with any glands that might be brought in view, and whatever skin might be found diseased. Chloroform being given, Mr. Hulke, having extracted the right central incisor, made an incision down to the bone in the middle line of the chin, commencing below the line of the lip, and, introducing a narrow saw, got through the dense bone before winding round the incision below the bone back to the angle of the jaw. This he did, cutting well down upon the bone, except just in front of the masseter, at which point he lightly skipped the point of the knife over the facial artery; the bone was then again sawn through an inch behind the tumour, and the whole mass dissected out, an aneurism needle being passed beneath the facial, so as to secure it at the last moment, and thus avoid the troublesome bleeding often attending its division at an earlier stage. Two small glands were then dissected out, two pieces of implicated skin removed, and the whole sewn up and covered with lint soaked in carbolic acid lotion.

Explaining the operation to the students, Mr. Hulke dwelt upon the proprietory of directing the incisions so as to leave as little deformity as possible after the wounds should heal, and observing that excision of the lower jaw is as a rule an even more bloody proceeding than the removal of the upper bone, recommended the precaution they had just seen him adopt of leaving the division of the large facial artery until the last stage of the operation. He could not promise a thoroughly successful issue of the case, as the disease would in all probability recur at no distant interval, but meanwhile the only available means of treatment had been adopted. On examination it was found that the morbid growth consisted of a solid mass of fleshy consistence, the size of a walnut, yielding a scanty juice on scraping and partly covered by the mucous membrane of the gum, which, with the muscular and subcutaneous tissues of the cheek, was closely incorporated with it. It did not, however, appear to spring from the bone, but rather from the periosteum, and so did not invade the alveoli. Two hardened and enlarged glands presented similar naked-eye characters to the primary growth. Under the microscope the growth presented various appearances in different parts. Chiefly made up of spindle and fibre-forming cells, there were occasional clusters of large round and oval cells, with delicate walls and enclosing large oval nuclei imbedded in dense masses in the midst of the more confused cell and fibre tissue, whilst invading the muscular fibres spread over and incorporated with the tumour, was much nuclear growth corresponding to Virchow's "indifferent granulation material," denoting an active invasion by the morbid growth of the neighbouring healthy tissues, and so auguring ill for the future of the patient.

A little girl was next treated for a prominent nævus occupying nearly the whole of the right upper eyelid. Mr. Hulke explained that there might be considerable risk in injecting any irritating fluid into a nævus so placed. He had known cases in which such treatment had caused death by formation of extensive thrombi in the veins leading from the part; and in some experiments conducted by himself, in which a solution of the perchloride of iron was injected into the large vein over a dog's ankle, death had followed almost instantly, and in one case large firm thrombi were found leading up through the iliac vein into the cava, and so to the right auricle of the heart. He, therefore, adopted the safer measure of passing a couple of threads steeped in the iron solution through the growth, and leaving them in.

The other case was that of a man over 70 years of age, who was sinking under long-standing disease of the knee, which had caused complete disorganisation of the joint, and, as a last resource, Mr. Hulke resolved to amputate above the knee. He employed Teale's method, pointing out the distinction between this and the usual flap operation, and dwelling upon its superiority in thigh amputations, from the fact of the vessels being cut short, instead of lying along the usual long flap bathed in pus. The anterior flap was taken from the skin covering the knee, and the patella was subsequently excised, together with the remains of the synovial pouch, which is apt to interfere with speedy union in these cases. The surfaces of the flaps were bathed with carbolic acid lotion (1 in 40), and thread ligatures employed. After the wound had been sewn up, strips of lint soaked in carbolic acid were laid over the stump, and the whole lightly bandaged, to restrain some oozing.

THE HIGHGATE INFIRMARY.

This building, which has given rise to so many quarrels and such choice displays of abusive language, has now, let us hope, come under more favourable auspices, having been transferred from the St. Pancras guardians to the Central Sick Asylum Board, and will consequently be maintained by various unions instead of a single parish.

The building itself is situated at the foot of Highgate-hill, immediately opposite the Small-pox Hospital, and is built on rather sloping ground, so that the extremities of the wings which are turned towards London are considerable higher than those turned towards Highgate. When completed, this Infirmary will be a very large and important institution containing about 400 beds. Meanwhile only one of the pavilions of which it is made up is occupied. Another adjoining the lane between it and the Small-pox Hospital is as yet unfurnished. Between these lie the administrative block and certain wards intended for special purposes, together with the Medical superintendent's house, reception rooms, and so forth.

The Infirmary was for a time under the charge of a Medical superintendent temporarily appointed by the St. Pancras guardians; it is now, however, under the charge of Dr. Shaw, lately superintendent of the the temporary Fever Hospital at Hampstead, who holds the post until a permanent officer can be appointed. Mr. Little, late House-Physician at Charing-cross Hospital, is Dr. Shaw's *aide*.

To the kindness of Dr. Shaw we are indebted for an inspection of the premises and such information as we desired.

The wards now occupied are five in number, three being devoted to males, two to females. These are lofty and well aired, having through and through ventilation. At the extremity of each is a kind of day-room, occupied by those patients who are able to be out of bed all day. At the other end are the rooms for the nurses in charge of the ward. These nurses have been trained, for the most part, at St. Thomas's Hospital, in connexion with the Nightingale fund, and seem to be most efficient. The wards were admirably clean, the bedding good and comfortable. The only thing notable was the bare walls, only relieved by Scripture texts.

The inmates seemed to be in no way different from those seen in the wards of a general Hospital, except that the cases were usually of a chronic character. Indeed, we recognised more than one whom we had elsewhere seen, either as in-patients or out-patients, at some of our Hospitals. They had been treated, and their cases found obstinate; had been discharged as "improved," as it is called, but unable to work, and had fallen on the parish. Others, again, had been out-patients, and had remained as such till their means of living were exhausted, and they, too, had to apply for parochial relief. The great groups of cases were rheumatic, syphilitic, and phthisical—all essentially chronic in their characters. In some the crippling effects of rheumatism were seen affecting the joints; in others the nervous system. Syphilis again appeared in its various forms—in one as affecting the larynx and threatening suffocation; in another giving rise to the painful and disagreeable psoriasis of the tongue. Diseases of the nervous system were not uncommon. We noted one case

of paralysis affecting the upper extremities only; in another we saw right hemiplegia without aphasia. A third patient was suffering from rheumatic paraplegia; whilst a fourth had peculiar ataxic symptoms, the result of a blow on the back. One patient had long been suffering from diabetes insipidus: he is now passing twenty-three pints of urine a day, but it contains not a trace of sugar.

Such an institution must constitute a valuable field for research if properly utilised, especially in connexion with the rheumatoid and syphilitic class of disorders, and one cannot help regretting that it should not be utilised to the utmost. The system now adopted is that of appointing one or two men to have sole charge over vast numbers of patients, in contradistinction to the plan adopted at our general Hospitals where the visiting Medical staff is very large compared with the number of patients. And if we compare the results of the two systems as far as Medical science is concerned we cannot fail to see the immense superiority of the latter. Nor is it, we believe, the more expensive, and that after all is the main thing ratepayers have to consider. Under any circumstances we trust that whoever is appointed to this post will remember that he has a duty towards his Medical brethren as well as towards his employers and himself.

In passing through the wards we noticed certain cases of peculiar construction; we found they were filled with bottles intended apparently for chemicals. They appeared to be far more complicated and expensive than was necessary. But it was in connexion with two other departments we noticed the most lavish and unnecessary expenditure. The dispensary seemed filled with drugs, a great portion of which are, we affirm, from extended knowledge of Hospital practice, to be, if not useless, at all events uncalled for, whilst some completely upset us trying to find out for what they were intended. Thus we saw one large bottle filled with crystallised (if we may use the word) iodine, that might indeed have been intended to make the tincture or the liniment, although these can be purchased ready made much more cheaply and economically; but what say our readers to a bottle of *metallic sodium?* Here we give up in despair. We were next shown the instrument case. We can only say of it that we have not seen one such in our largest Hospitals, where capital operations are of daily occurrence. It contained in profusion everything an operating Surgeon could and could not want, from vesico-vaginal fistula to eye operations. The whole affair cost, we were informed, close on £180, and this was the work of the late parsimonious guardians of St. Pancras.

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Medical Times and Gazette.

SATURDAY, JULY 30, 1870.

IN MEMORIAM.

The Government have withdrawn the Medical Act (1858) Amendment Bill, and for this session at least the hopes and fears of Medical reformers are at an end. Remembering, as we do, the excellent points which the Bill as first drafted presented, the hopes that even to a late period were entertained of its real amendment and final success, and above all the easy process by which it might have been made a measure acceptable to all but revolutionary dreamers, and beneficial in a very high degree both to the Medical Profession and the public, we confess that we feel extreme regret and no little indignation at its wreck. It only remains for us to point out what in our opinion have been the chief causes which have led to a result which is the more to be deplored because it might have been easily avoided.

The chief and great cause which has led to the abandonment of the Bill has been the abandonment of its great principle. Of the conduct of Earl de Grey and his advisers in this matter we wish to write with all fairness and courtesy. But we are compelled to say that had Lord de Grey exhibited a firm appreciation of the main principle which his Bill at first embodied; had he, indeed, upheld unflinchingly the propositions which he enunciated on introducing his Bill into the House of Lords, his measure would most certainly have succeeded. It was the abandonment of the "one portal system" by Earl de Grey in his amended Bill, which ranged against it Medical reformers of all shades of opinion, the most influential of the Medical Corporations, and the whole Medical press of the country. The weakness of the course pursued by the Lord President or the department of Government which he represents is, in our minds, little short of culpable. It was not the result of ignorance, for it is evident that his lordship had a fair mastery of the whole field of Medical politics, and in the speech to which we have referred he had strongly and intelligently enforced the necessity of substituting for the nineteen existing examining bodies one examining body in each of the three kingdoms, with a uniform mode of examination. The moment, however, any pressure was brought upon him by that cynosure of Liberal politicians, the University of London, and any gusts of displeasure reached him from certain authorities in Scotland and Ireland, he threw overboard the only really valuable part of his ship's cargo, with the result that might have been foreseen—instead of her outriding more easily the storm, she only the more certainly drifted on the rocks.

Whilst thus his lordship or his lordship's advisers curiously exhibited on one side the very impressionable material of which they were composed; on the other, they proved themselves as deaf as adamantine rocks to the repeated remonstrances and prayers of the great mass of the Profession for whom they were legislating. It is true that a great defect of the Bill, as originally drafted, was the preposterous amount of power it threw into the hands of the Medical adviser of her Majesty's Privy Council, and it is true that in consequence of the remonstrances which reached the Government from all sides in the amended Bill, this power was restricted and kept within more reasonable bounds. But having said this we have summed up all that can be said in favour of the changes introduced into the Bill in deference to the wishes of the Medical Profession. The Profession through its accredited organs asked for a reconstitution of the General Medical Council on a broader basis. Their prayer would have been fairly met by a moderate clause, granting indirect representation by giving the electoral right to the graduates, fellows, members, and licentiates of the different Medical authorities. The machinery for such representation to a great extent already existed, and a provision for putting it in action was all that was required. Such a clause would have made the Bill a most popular one. But its promoters persistently neglected to introduce it. That the opportunity was a good one for introducing some change in the constitution of the General Medical Council is, we should think, not to be disputed. The Bill as originally framed threw most of the responsibility of the conduct of Medical education and examination on the Privy Council. It therefore did not necessarily affect the General Medical Council, but in the amended Bill this responsibility was shifted on to the shoulders of the General Medical Council, who were in fact made the

most powerful body in the whole Profession. This increase in the influence, power, and duties of the General Medical Council ought undoubtedly to have been accompanied by a provision for making it more popular and trusted. The present Council is an excellent body, but it has failed to impress duly its excellence upon the Medical mind. This we believe to be its misfortune rather than its fault; but it was a blind policy to leave the constitution of a non-popular—we do not say unpopular—body unaltered whilst its powers were enormously increased.

Then again the Lord President imported into the amended Bill the objectionable "homœopathic" clause of the Bill of 1858, and made it tenfold more objectionable by extending it, not merely to the admission to practice, but to the passing of examinations—making it impossible to reject any Medical heretic who propounded the most egregious theories of Medical and Surgical Practice. The Government evinced not the slightest inclination to modify this very objectionable provision.

Once more, had the Lord President in committee of the House of Lords reintroduced clause 18, and simply proposed a clause giving the universities under proper restrictions the right to grant purely honorary Medical degrees, this compromise would probably have met the necessities of the case. But this mode of extrication from the difficulty, although often urged on the Government, was neglected. There are several other points on which the wishes of the Profession have been equally disregarded by the department of the Government which has had charge of the Bill. But we think we have said enough to justify us in laying the failure of the measure primarily at the door of Lord de Grey and of his colleagues.

But having said thus much we must add that we cannot entirely exculpate members of our own Profession from all share in the failure of the Bill. In the first place it is plain that Medical gentlemen have forgotten the duty they owe to their Profession at large in their care for the interests of certain of the Medical authorities with which they are connected. We do not say that this affords any excuse for the line of conduct taken by Ministers in charge of the Bill, but it is yet true that the opposition which met the original Bill from various quarters was dictated by the narrow interests of certain bodies rather than by the requirements of the Profession and the public.

Lastly, there is no doubt that had unanimity been more conspicuous throughout the ranks of Medical men, the Government would have learned the lesson they have at last learned earlier. If the Profession had made themselves heard in the House of Lords as they have made themselves heard in the House of Commons, we should have had to congratulate our readers upon a sound and useful Medical Reform Act. As it is, we have only to offer them the very substantial consolation that no Bill is far better than a Bill founded on no principle and conferring no benefit.

THE WAR.

Mr. Cardwell having expressed the consent of our Government to the proposal that some British military Surgeons of experience should be sent to the head-quarters of each army during the approaching war between France and Prussia, it now only remains to be seen whether the military authorities of the countries engaged will admit foreigners of any description within their respective lines, for, so far, a decided objection has been evinced by the French to the presence of strangers with their army. The correspondents of French newspapers even have been peremptorily forbidden to join the army or to divulge movements of troops, and more than one English correspondent, both civil and military, has been temporarily under arrest. We therefore fear that British military Surgeons, just at present, would scarcely be likely to meet with a more friendly reception. The Prussian authorities have been less inhospitable, but it is probable that the desire to avoid the slightest appearance of partisanship may prevent our Government from sending Medical or other officers to one head-quarters only.

The Medical and sanitary aspects of a modern European campaign present so many subjects for study and careful record, that it is highly necessary that the number and special qualifications of the Medical officers selected for the duty should be judiciously adapted to the purpose in hand. It would be impossible, for instance, for the same observer to describe with the requisite accuracy and clearness the details of the internal administration of the large military Hospitals, the practical working of the International Association for the Relief of the Sick and Wounded in War, the system of field Hospitals, and of the first line of relief to the wounded; the methods adopted to secure the sanitary welfare of camps and garrisons and of troops on the march—particularly during retreat, the certain fate of portions of each army during the varying fortunes of the campaign—the applicability of railways and Hospital ships for the conveyance of sick and wounded men and their attendants, the carriage of the wounded from the field; the more refined and conservative Surgery and the special pathology of the war, only to be observed in the stationary Hospitals in the rear—such as resections of joints, amputations through joints, the subperiosteal removal of splintered bone, the means of detection and removal of deep-seated projectiles and other foreign substances—the prevalence or absence of epidemics in camps and garrisons and of pyæmic diseases in the Hospitals (particularly as regards osteo-myelitis in its various forms), and the relative advantages in such cases of M. Jules Roux's disarticulations above the affected bone and of the more temporising plan of first removing all sequestra, leaving the periosteum intact, as proposed by Professor Longmore. We have merely sketched in the lightest detail a few of the subjects of study for the Surgical observers of the war. Others of equal, or perhaps greater, importance might easily be added. We have, however, sufficiently shown the magnitude of the task which will devolve upon those Medical officers of our army who may be accredited by our Government to the belligerent authorities. We trust that, if any be sent, their number may be sufficient to admit of a due division of labour. The selection will, of course, rest with the Director-General of the Army Medical Department, who, from the thorough knowledge which he possesses of the ample means at his disposal, will doubtless have but little difficulty in securing able and worthy representatives of the department over which he presides.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. III.

From the earliest days of Medical Practice some method of treating diseases of the lungs directly, by remedies applied at once to the tissues affected, instead of circuitously through the stomach and circulation, had been a desideratum with Physicians. And this was in some degree found in changes of climate; but, from the days of Hippocrates downwards, attempts have been made to obtain the local action of drugs on the organs of respiration, by means of fumigations and the inhalation of medicated vapours, or by blowing powdered medicaments into the larynx. And some years ago, at some Continental spas, further efforts were made in the same direction by causing patients to inhale an atmosphere saturated with, as it was called, mineral water; but, as the mineral water was vaporised by heat, the prepared atmosphere was in reality only saturated with simple watery vapour. The first real step to the desired end was gained in 1849, when Auphan of Euzet-les-Bains adopted a plan of discharging a jet of mineral water against the wall of what was called the "inhalation-saloon," and by this means did actually charge the atmosphere with the spray, or, as he termed it, the "pulverised" or "atomised" water. Then Sales-Girons

invented an apparatus by which fluids were reduced to a fine mist, which could be inhaled, and excellent results were obtained in his "vapatory" at Pierrefonds; and when, proceeding still further, he invented a portable pulverising apparatus, atomiser, or nebuliser, he placed in the hands of the Medical Practitioner the so long desired means of local medication of ing the respiratory organs. Sales-Girons placed the results obtained in his "vapatory," and in 1858 his portable apparatus, before the French Academy of Medicine, and his paper excited no little sensation. For years a war was waged on the question whether the "atomised" fluids really ever reached the lungs, Durand-Fardel, and other authorities, denying, or at least doubting, that they could possibly penetrate deeply into the respiratory tract; and some, as Pietra Santa, declaring that experiments proved they did not even reach the larynx. It may seem to us very strange that the penetration of the spray into the respiratory channels should have been questioned, still more that it should have been declared impossible, for we had fully recognised the existence of mill-stone makers' phthisis, grinders' asthma, coal-miners' black lungs, and other diseased states of the lungs caused by working in atmospheres laden with different kinds of dust. But the dispute continued among our neighbours till the Academy of Medicine took the question in hand, and investigated it thoroughly and impartially; and in January, 1862, Poggiale, the reporter of the committee appointed by the Academy, made a statement, based on experiments, entirely in favour and support of this new method of medication. The experiments, arguments, and cases brought forward by Poggiale, and by other authorities such as Demarquay, proved beyond all doubt that the atomised fluids and the chemical substances contained in them enter the respiratory channels, and penetrate to the very air-cells of the lungs, and therefore that by means of the spray or "pulverised fluid" apparatus remedies could most successfully be directly applied to the organs of respiration. Among the authorities who took part in the discussion on Poggiale's report, in April and May, 1862, was the late Prof. Trousseau, who warmly advocated the new method, and who declared that he had applied the inhalations in many instances, and had derived great benefit from them; that they afforded a means of medication of great value in affections of the pharynx, larynx, trachea, and the large bronchi. In herpetic angina granulosa, in hoarseness of orators and singers, they rendered good service. He had cured two extremely grave cases of œdema glottidis by means of an atomised solution of tannic acid, in one of which cases tracheotomy seemed to him unavoidable; in syphilitic deterioration of the larynx, when that operation cannot always be avoided, we could sometimes gain time by inhalations to wait for the effect of specific treatment. In short, Sales-Girons had, he said, rendered a great service to the world at large by his invention of the treatment by means of pulverisation. And in Trousseau's invaluable volumes of clinical lectures may be found numerous references to the employment of this method.

It has, then, been established, beyond a possibility of dispute, that the atomised fluids do penetrate the lungs, and it is also a proved fact that few, if any, surfaces possess a greater or more rapid power of absorption than the pulmonary mucous membrane. Trousseau and other authorities have recorded cases showing that the spray may penetrate "too much, much too much, so that great caution is necessary in its application," such grave evil as bilateral pleuro-pneumonia having followed on a too free use of it. But its powers for good are still by no means fully known. Sales-Girons considers that inhalations of nebulised solutions are indicated in acute and chronic diseases of the pharynx, larynx, trachea, bronchi, and lungs; in nasal catarrh, asthma, and tuberculosis; in acute tonsillitis, simple and pseudo-membranous angina, and in croup; and numerous authorities, as Trousseau, Demarquay, Siegle, Lewin, Waldenburg, Niemeyer, Beigel, and Cohen, have recorded excellent results from the employment of the method in many or all these affections. But more recently Sales-Girons presented to the Academy of Medicine a memoir on respiratory therapeutics (see report by M. Béclard in the *Gazette Hebdomadaire*, No. 10, 1867), in which he contends that these inhalations may be safely and usefully resorted to in a great variety of diseases for the purpose of producing constitutional effects; and both he and Anecelon have employed inhalations of sulphate of quinine with great success in the treatment of intermittent fever. Anæmia, dyspepsia, and some other affections have also been treated by the inhalation of nebulised fluids. As yet, however, our experience of the treatment of general disorders through the lungs has been much too limited to in any degree either prove or disprove the principle proposed by Sales-Girons in the words, "*Quantum valeat organum ad absorptionem morbi, tantum valeat ad absorptionem remedii.*"

Great ingenuity has been displayed in the invention of different forms of apparatus for atomising or nebulising the fluids; in many of which, as in the instruments of Sales-Girons and Mathieu, the spray-producing power is air compressed by a hand-pump or bellows; while in others, as first in that of Dr. Siegle, steam is the acting power, the patient being able to inhale without the aid of an assistant, or the employment of his own hands to set and keep the instrument in action. But it does not come within the scope or intention of these papers to describe these various instruments, and we will only mention Siegle's apparatus with Bergson's tubes as being perhaps the most perfect; Bergson's apparatus with Dr. Andrew Clarke's hand-bulbs as being the most simple and extremely useful and convenient; and an excellent little pocket steam apparatus—"the traveller's atomiser"—invented by Dr. Beigel.

In the employment of inhalations by this method many precautions are necessary as to the number of inhalations, the avoidance of excitement or exertion just before or after inhalation, and so on. It is best, especially with nervous patients, to begin with simple water, and gradually add the medicated solution drop by drop; and in some cases, where even water could not be inhaled, Dr. Beigel has derived advantage from employing milk, after the inhalation of which for some time he has been able to proceed to the use of the desired remedy.

Any article of the materia medica soluble in water, or weak alcohol can be used by the nebulisation method, and a great number of medicines have been so employed; but we can here only mention some of them, and the diseases in which they have been used. It is always best to begin with weak solutions, and increase their strength very gradually.

The substances employed in inflammatory affections of the throat are astringents and caustics—viz., tannin (from gr.j. to gr.x. to the fluid ounce), sulphate of zinc (same strength), perchloride of iron (mv. to mx. to the ounce), alum (gr.j. to gr.v. to the ounce), and nitrate of silver (gr.½ to gr.v. to the ounce). In simple catarrhal diseases, inhalations of turpentine and of the vapour of chloride of ammonium have been found very serviceable, and Beigel especially commends the latter as being most valuable in the partial or total aphonia of clergymen, singers, actors, etc. Inhalations of carbolic acid (mxv. to the ounce) have been found of great use in cases of obstinate ulceration, accompanied by fœtor of the breath; and in croup, Beigel has found lime-water (one part to thirty of water), tannin, and bromide of potassium (gr.x. to the ounce) very valuable. Tannin and the perchloride of iron have also been successfully used in diphtheria; oil of turpentine, of cubebs, or of copaiba (mj. to mij. to the ounce of warm water), in chronic bronchitis, with offensive secretions, in bronchorrhœa, and in gangrene of the lungs; bichloride of mercury (gr.½ to gr.ij. to the ounce) in syphilitic affections of the pharynx and larynx; liq. potassæ arsenicalis (mv. to mx. to the ounce) in asthma; and in hæmoptysis, tannin and the perchloride of iron; and we should

think that ergot of rye—the liquid extract—might also be valuable in hæmoptysis. But for further and fuller information on this subject we must be content to refer to Dr. Cohen's work, in which a list of fifty-three medicines which have been administered in this way is given, with the doses used, and the diseases in which they have been employed.

It must be observed that in most of the diseases above mentioned the action sought for from the medicated spray is purely, or at least chiefly, topical, as much so as the action of the ether in Dr. Richardson's ingenious application of the spray production, and in some conditions in which the atomiser is extremely useful, *inhalation* by the patient is not only not necessary, but undesirable. Thus, in acute inflammations or in ulceration, in the fauces or pharynx, solutions may be directly sprayed, if we may use such a word, on to the affected parts, which would be dangerously irritating if inhaled. The *acidum sulphurosum* of the British Pharmacopœia may be thus applied with great advantage in tonsillitis and other acute inflammations of the pharynx, so may solutions of iodine or other substances; the method replacing with immense advantage the barbarous, imperfect, and cruel mode of trying to apply remedies in such conditions by gargling.

While convinced of the great value of inhalations of nebulised or atomised medicated solutions in a large number of diseases, we cannot better conclude this notice than by a quotation from Dr. Beigel's work:—"He who expects wonders from that mode of treatment will soon be disappointed; he who recommends it as an infallible one will prove a false prophet; but an unprejudiced application of the atomiser will lead to the conviction that the invention of Sales-Girons has been a most valuable addition to therapeutics."

For a full and accurate knowledge of the method, and of the results that have been obtained from its employment, the reader may consult the following works:—"On Inhalation, &c.," by Dr. H. Beigel, 1866; and an article by him in the *Practitioner* for 1868. "Inhalation; its Therapeutics and Practice," by Dr. J. S. Cohen. 1867. Philadelphia. "Die Inhalations-Therapie, etc.," by Dr. G. Lewin, 1865, Berlin.

Many other monographs on the subject have been published, and innumerable communications in English, French, German, and American Medical journals, since 1861, but either of the three works above-mentioned will be found to give all the necessary practical information, and of them Dr. Cohen's would be perhaps the most useful to the student or the busy Practitioner.

THE MEDICAL OFFICERS' SUPERANNUATION BILL.

Mr. Brady's Medical Officers' Superannuation Bill has passed its third reading in the House of Lords; but a clause has been added to it by their lordships which detracts from its value, and, in fact, does away with almost all its importance. The clause is as follows:—

"2. No pension shall be obtained by any officer under this Act on the ground of permanent infirmity of mind or body unless the Poor-law inspector of the district, or some person on that behalf authorised by the Poor-law Board, shall have first certified that, in his opinion, such officer has, by reason of such infirmity, become incapable of performing the duties of his office with efficiency or to continue his private practice."

Now it is evident that, in the great majority of cases in which a pension might be justly claimed on the ground of length of service necessitating partial relief from active exertion, this clause would operate to the disadvantage of the claimant—in fact, would deprive him of the pension altogether. With few exceptions, the union Medical officers of England and Wales are gentlemen engaged in private practice. For years, whilst health and strength permit, they devote their energies to a great extent in the Poor-law service. The time comes, however, when the work has told upon the health and strength of the parish Doctor. It may be years, many years, but the time does come, and he is anxious for retirement from his onerous public duties. He claims his pension, and one ground—in numberless cases certainly—would be inability from "infirmity of body or mind" to carry on his incessant labour. He, nevertheless, might be fit for the less anxious and less wearing duties of private practice. Is his claim to be ignored on the ground that he is not entirely unfit for carrying on his Profession? And this, too, on the mere "opinion of an official." This clause has so altered and damaged the Bill that it is almost worthless, and steps should be immediately taken to get the clause expunged, if possible, in the House of Commons. The Poor-law Medical Officers' Association has many friends in Parliament, and no time should be lost in petitioning the House against the obnoxious enactment. Unfortunately, at the time we write the consideration of the Lords' Amendments is placed on Thursday's paper, although from the number of measures which should take precedence of it, it is uncertain whether it will be taken on that night. Union Medical officers should place themselves immediately in communication with their representatives. It is possible that the evil may yet be removed; but what is done should be done decisively and at once.

THE WEEK.

TOPICS OF THE DAY.

The Medical Profession is at last beginning to acquire a just estimate of its power and influence on the Government and Parliament. The last week has proved that even a strong Ministry cannot carry an obnoxious or unsatisfactory Medical Bill through the House of Commons in opposition to the wishes of the Profession. A few more Medical members in the House to strengthen the hands of those who already are doing our work so well, and we shall no longer be behind other professions either in our power of influencing Parliament or the Government of the day.

The summons against Dr. Steele, the superintendent of Guy's Hospital, who was charged two or three weeks ago under the Anatomy Act "with unlawfully causing the body of Samuel Millbourne to undergo anatomical examination without permission of the person having legal possession of it," has been dismissed. It appears, in fact, that Dr. Steele was not cognigant in any way of the matter. He gave no directions for the post-mortem, nor did he know that it had been made. Mr. Tyas, the solicitor to Guy's Hospital, however, said that the Medical authorities of the Hospital were in a position to prove that they had a right to make such an examination for scientific purposes, and it was also stated that they were prepared to defend the case in the higher courts. Mr. Benson, the magistrate, however, said that he was convinced that under the circumstances the post-mortem examination was illegal, but as clearly there was no evidence against Dr. Steele the case must be dismissed. We hope, however, that some regulations will be laid down by the authorities of our large Hospitals for the future avoidance of such scandals. On the one hand, the Profession of Medicine is a humane Profession, and the persons practising it are gentlemen. It cannot, therefore, be desired that the sensibilities of the friends of the poor should in our large Hospitals be set at nought. On the other hand, if Medical science is to progress and pathology is to be taught post-mortem examinations must be made. It would be easy to let the friends of all patients entering our great Hospitals know that, unless specially objected to by them, in every case of death an examination will be made. Then let there be a certain time allowed for receiving such objections, after the expiration of which the examination should proceed as a matter of course. But we hold that the expressed wishes of children, or husband, or wife must be allowed to outweigh even the exigencies of science.

At the same time we know, from some experience in one of the smaller London Hospitals, that when the arguments for examination are fairly laid before relatives leave is very rarely refused.

Mr. Hilton, after having ably filled the office of Surgeon to Guy's Hospital for twenty years, has been unanimously elected by the governors Consulting Surgeon—an honour which has not been bestowed on any member of the Surgical staff since Sir Astley Cooper.

Important evidence in favour of the working of the Contagious Diseases Act has been offered by Mr. J. Gurdon Rebow, the member for Colchester, in a letter to the *Times*. Mr. Rebow writes:—

"The Act came into force in that town at the end of January, 1869. In the year 1868 the number of soldiers invalid by the disease was 396 per 1000 during the whole year. In 1869 the number was reduced to 230 per 1000."

"Early in the present year the dépôts were removed from the camp, and the number of troops was materially reduced; but on the 3rd of June, out of 1049 soldiers in garrison on that day, there was only one soldier invalided, thus distinctly showing that not only the morality but the efficiency of the troops quartered there is materially improved, instead of two-fifths of them being invalided for many weeks in the year."

"I will also take this opportunity of adding a remark made by the Surgeon of the Lock Hospital of the camp, as to the reception which the Act meets with from the unfortunate women subject to inspection, viz.:—

"'I have never had a woman brought to me who objected to the necessary examination, and there has never been brought a woman about whom the slightest doubt existed as to the propriety of bringing her. I must add that almost without exception the women discharged from Hospital have expressed their thankfulness for the kindness and attention shown them. There is one other fact connected with the health of the district I ought to mention—viz., that during the training of the militia, out of a strength of 750 men, not a single case of contagious disease contracted in the district was admitted into Hospital.'"

This is strong evidence for continuing the operation of the present Acts in garrison towns; but it ought not to be construed in favour of extending them to the civil population.

The women Margaret Waters and Sarah Ellis, of baby-farming celebrity, have been committed by Mr. Ellis for trial on the four charges of wilful murder, manslaughter, conspiracy, and obtaining money under false pretences. The lawyer who defended them, Mr. Mayo, described London as a large emporium for baby-farming.

Mr. E. Bellamy has been elected Assistant-Surgeon to the Charing-cross Hospital.

The health of London is below the average. The deaths last week were 240 above the estimated number. Scarlatina was more fatal than in any week since January, having killed 130; and 31 deaths from cholera and choleraic diarrhœa, and 385 from diarrhœa have been registered. The Registrar-General, in his report, calls the attention of the engineers of the water companies to the condition of their water supply, and insists on the necessity of flushing and disinfecting sewers and removing filth from the streets.

The Association for the better endowment of the University of Edinburgh has issued a report, from which it appears that £52,011 for the encouragement of higher learning has been subscribed since 1851. Of this sum the Association has collected £12,000. We cannot help thinking that in consideration of the large amount of fame and money contributed to the University by its students of medicine, but a small share of scholarships seems to fall to that faculty. Whilst there have been four "foundations" in classics, three in mathematics, four in physiology, two in divinity, and two in physical science established, there has been but one in medicine, of the annual value of £40, and two in natural science, of the valve of £60 and £100 respectively. The other foundations vary in value from £160 to £100, the majority being of £100. This difference, however, may perhaps depend more on the will of the founders than on the University authorities. We notice that there is a project on foot for founding a Fellowship in the University, in honour of the late Mr. Syme.

It will be seen from our Parliamentary intelligence that Dr. Brewer has promised us another Medical Reform Bill next session. Whatever the future Bill may contain, we think we may prophesy that in no sense of the word will it be a half-measure.

FEVER IN LIVERPOOL.

Fever patients in the Liverpool Workhouse increase rather than diminish in number. This week it is 255, against 227 in the previous week and 89 in the corresponding week of last year. Only one death, and that from virulent typhus, occurred last week. Although the disease appears to have assumed an epidemic character, Dr. Gee, the Medical officer, states that the visitation is not so serious as other outbreaks of fever in Liverpool. The bulk of the patients are suffering from relapsing, and not from typhus, and the fatality is accordingly much less. Typhus patients in the workhouse are now rare, and the cases of continued fever have not assumed a serious character. Fifty-three cases were last week discharged cured. The parish authorities are taking every means to arrest the spread of the disease.

THE BIRMINGHAM ROYAL INFIRMARY.

On September 21 next Mr. Oliver Pemberton will move some very important resolutions with reference to the management of the General Hospital, Birmingham. The object of these resolutions is to add an Ophthalmic Surgeon, a Dental Surgeon, a Surgical and Medical Registrar, two Assistant-Physicians, and two Assistant-Surgeons to the staff of the Hospital. To effect this, on the vacancy of the post of either one of the four Physicians or Surgeons he proposes that an Assistant-Physician or Surgeon should be appointed, and so arranges that the staff should consist permanently of three Physicians, three Surgeons, three Assistant-Physicians and three Assistant-Surgeons. He proposes "that none of the honorary Medical and Surgical officers, with the exception of the Physicians and Surgeons, shall be governors of the Hospital, *ex officio*, or members of the Medical Committee." The qualification for officers for any of the Medical offices, except the dental Surgeon, shall be simply that they are registered at the time of their candidature. The Assistant-Physicians and Surgeons are to attend to the house-patients; the dentist to dental cases; the ophthalmic Surgeon to eye diseases. These proposals are of undoubted importance, and if carried out will, we believe, be of great service to the institution and to the Profession. There can be no doubt that the increase in the Medical staff is not only desirable but necessary to the proper performance of its duties to the poor. Dr. Russell intends moving some amendments to these propositions. He thinks it advisable that an obstetric Physician and three Assistant-Physicians, three Assistant-Surgeons, a Dental, and Ophthalmic Surgeon, should be at once added to the staff. On the first vacancy in the staff of Physicians, he would elect the Obstetric Physician to the post, and then the Medical staff would consist of three Physicians, an Obstetric Physician, three Assistant Physicians, three Surgeons, and three Assistant Surgeons, to which would be added the Dental and Ophthalmic Surgeons. If either of these plans be carried into effect the Hospital will be benefited. We rejoice to see that the opponents of all reform in the Medical staff have altered their minds and now come forward to effect that which had once been regarded with so much disfavour. The question commends itself to the serious attention not only of the Medical gentlemen connected with the institution

but to every lay governor, and we think that at the annual meeting the subject will be discussed with temper and earnestness. As we have said, either Mr. Pemberton's or Dr. Russell's plan of reform would be productive of good.

THE EPIDEMIC OF SMALL-POX AT PARIS.

There are some other important points in the report of M. Besnier, to which we adverted last week. Thus in relation to *vaccination*, the observation has only to be repeated in this as in all epidemics, that the mortality in non-vaccinated subjects is very great, and that individuals who have been vaccinated may, while yet only young, sometimes have lost the benefit derived from vaccination. But a fact revealed by the present epidemic is that *vaccinated subjects* may furnish also a very considerable mortality. Thus among the small-pox patients at the Maison Municipale de Santé under M. Besnier's care, it was quite exceptional that they had not been vaccinated in childhood, and yet the mortality was at the beginning of the epidemic not less than 18 to 20 per cent. Of 23 patients dying only one had not been vaccinated; 4 exhibited no vaccine scars; but in 18 there were well marked vaccinal cicatrices. In fact, the duration of vaccinal influence may be much more ephemeral than is generally supposed, and during a severe epidemic like the present, all cases without exception should be revaccinated. M. Besnier has just obtained a perfect vaccine pustule in a child 4 years and some months old, who four months before he had vaccinated with complete success, as testified the magnificent cicatrices. The question then arises whether a single inoculation should be considered sufficient, and whether it should not be repeated until no result whatever is produced. So with revaccination, for it is a complete error to suppose that absence of success of revaccination is a proof that the immunity conferred by vaccination persists. It is usually supposed that patients who prove refractory to all attempts at vaccination possess also an immunity from small-pox. During the present epidemic several such have died.

In reference to the treatment of the disease, M. Besnier observes that the hopes entertained by M. Chauffard and others concerning the value of phenic acid have not been realised. As an internal remedy it seems of no avail, but it is a very useful external agent for cleansing the pustules and crusts. Sarracenia, once so much vaunted, M. Besnier regards as a "therapeutical illusion;" and he does not think much better of the perchloride of iron. In hæmorrhagic variola (as distinguished from variola complicated with some partial hæmorrhage, when it may be of use), even when given in very large doses it has exerted no effect on the course or termination of the disease.

"The conclusion from all this is no other than that which flows from the study of small-pox at various epochs. It is sad to make such an avowal, but it is necessary. As regards treatment there are three quite distinct categories of variola. In one, which comprises 'perfect' confluence, malignant confluence, true hæmorrhage, treatment is nearly powerless. From the beginning the destruction of the organism is decreed, it is irreparably attacked, and there is an absolute intoxication. In a second category may be placed those variolas in which life is no longer menaced fatally, and that from the beginning, but by the existence of some complication or some accident proper to the disease—the extreme abundance of the eruption, visceral complications, alcoholism, internal or external phlegmons and suppurations, etc. Therapeutics resumes its rights, but without any specific virtue, relying only on the special indications emanating from the disease and the patient. Here, certainly, attentive observation, the strict execution of the laws of hygiene, favourable conditions of locality, ventilation, etc., the art of seizing the different indications as they arise, extreme attention paid to alimentation, the suitable employment of tonics, and the necessary Surgical aid, will, as their result, enable us to snatch some patients from death. This is a true but a rare consolation, for in most cases of this category which terminate in recovery, attentive expectation suffices, the favourable evolution of the disease being quite spontaneous. In the third category are to be ranged the cases which are happily the most numerous, in which the spontaneous favourable evolution is absolutely indisputable, and in which therapeutics, properly called, has no need to intervene."

The number of cases for the week ending July 23 has again undergone a slight diminution, being 215, in a total mortality of 1160.

FROM ABROAD.—THE ACADÉMIE DES SCIENCES—VOLUNTEER AID FOR THE WOUNDED.

The discussion at the Académie des Sciences on the claims of Mr. Darwin to be placed first on the list of candidates to supply the place left vacant in the section of zoology by the death of Professor Purkinje still continues in the section, and is, we believe, in its duration quite unprecedented. M. Milne-Edwards, while insisting on his absolute opposition to the transformist doctrines, wished the Academy to render due homage to the value of Darwin's special work, especially in relation to the theory of the formation of the madrepore islands. M. Elie de Beaumont also proclaimed the value of this theory, maintaining, however, that in his opinion any good work which Darwin may have done has been spoilt by views which are both dangerous and void of foundation. His election should be delayed until he has renounced them! M. Emile Blanchard spoke with the greatest severity on Darwin's claims, regarding him as an intelligent *amateur* rather than a *savant*, adding that it would be a misfortune for science that the doors of the Academy should be opened to him. His long researches on the races of pigeons, which have been so much admired, might be adduced in proof of his being wanting in the true spirit of science. He was not able even to make a zoological investigation of the specimens he collected during the voyage of the *Beagle*. His work on the Cirripedes contains little that was not already known, and his monograph on the Planaria contains scarcely anything of importance. The theory of the madrepore islands is due much less to him than is generally supposed, as all the chief facts were known before. Then the doctrine which has rendered his name so celebrated is not only false, but does not belong to him, Lamarck having long since expounded the system of the transformation of species. M. Blanchard then went into a minute exposition of the errors of the Lamarckian doctrine, and is to continue his discourse at the next meeting, when also M. de Quatrefages will be heard in reply.

The following are among the prize questions proposed by the Académie for 1871 and 1872:—1. The Great Prize in the physical sciences, consisting of a gold medal, value 3000 francs, postponed from 1868, will be awarded in 1871; subject, "An Investigation of the Fertility of the Fungi (Champignons)." 2. Bordin Prize of a gold medal of 3000 francs, 1871, "Exhibit the Resemblances and Differences existing among the Organic Productions of the Eastern Points of the Three Continents of Africa, South America, and Australia, as well as of the Intermediate Islands, as also the Cause to which these Differences may be assigned." 3. The Chaussier Prize of 10,000 francs will be adjudged, for the first time, in 1871, to the author of the best work on legal Medicine, or on practical Medicine, which has appeared during the preceding four years. 4. The Gegner Prize of 4000 francs will also be adjudged, for the first time, in 1871. It is to be conferred on a "*savant pauvre*" who has already done good work, in order to enable him the better to continue his researches in aid of the progress of the positive sciences. 5. The subject for the prize of 5000 francs in Medicine and Surgery has been successively postponed from 1866 and 1869, and is now proposed for 1872, "The Application of Electricity to Therapeutics." The candidates are required (1) to indicate the electrical apparatus employed, describing their mode of application and physiological effects; (2) to collect and examine the facts hitherto published on the application of electricity to the treatment of disease, and especially of the affections of the nervous, vascular, muscular, and lymphatic systems; and (3) to verify and complete by new investigations the results of these observations, determining the

cases in which it is desirable to have recourse to the action of intermitteut currents, and those in which continuous currents should be employed. 6. The Alhumbert Prize, 1872, of a gold medal of 2000 francs, "The Mode of Nutrition of Fungi (Champignons)." 7. The Serres Triennial Prize (7500 francs), left for the encouragement of the study of "General Embryology, applied as far as possible to Physiology and Medicine," will be awarded for the first time in 1872, to the author of the best work on this important subject. 8. The Cuvier Prize of 1500 francs will be adjudged in 1873 to the author of the most remarkable work on the "Animal Kingdom or Geology" that has appeared during the years 1869-72. In the same year will also be awarded for the first time three prizes, each of 10,000 francs left by Cuvier, to the authors of the works or memoirs that have most contributed to the "Progress of Physiology, Physics, and Chemistry." All works and essays of candidates for any of the above prizes to he deposited prior to June 1 of each year.

Volunteer offers on the part of the Medical Profession for the exigencies of the war are coming in on every part of France. A part of these are being organised under the superintendence of M. Lefort, under the name of Volunteer Ambulances. The great object will be to transport the wounded as little as possible, and these "*ambulances mobiles*" are to be supplied with Hospital tents, which may be erected at once wherever the exigencies require, forming temporary Hospitals, which allow the ambulances themselves to follow the army. This is a volunteer movement in imitation of the Americans, hitherto untried in France. We only hope that some spontaneity of action will be allowed those who have the management of it, for if it once gets under the direction of the terrible "intendance militaire," which has done so much to cripple the energies and impede the agency of the regular Medical officers, we shall have little hopes in its efficacy. Among other provisions the Government has ordered the transformation of a portion of the fortifications of Paris into tent Hospitals, to which the wounded will be brought who can bear the railway journey from the frontier. A committee of ladies who are relatives of Medical men have also issued an appeal, signed by Mesdames Nélaton, Malgaigne, and Lefort, offering and calling for subscriptions for the wounded, Mesdames Nélaton and Malgaigne each subscribing 1000 fr., and urging the wives and daughters of the members of the Profession throughout France to supply funds for the succour of the wounded.

PARLIAMENTARY.—MEDICAL OFFICERS' SUPERANNUATION BILL—THE MEDICAL ACT (1858) AMENDMENT BILL—REPRESENTATION IN THE GENERAL MEDICAL COUNCIL—MEDICAL RETURNS—MILITARY SURGEONS AT THE SEAT OF WAR—CONSANGUINEOUS MARRIAGES—A NEW MEDICAL REFORM BILL.

In the House of Lords, on Thursday, July 21,

The report on the Medical Officers' Superannuation Bill was received and some further amendments were agreed to.

Lord Redesdale proposed to insert a new clause providing that before any Medical officer should be superannuated under the Bill there should be required a certificate from a Poor-law inspector, stating that the person to whom it was intended to give a pension was incapable of performing the duties of his office with efficiency, and was not continuing his private practice.

This clause was agreed to.

In the House of Commons,

Petitions praying for a direct representation of the Profession on the Medical Council were presented, by Colonel Sturt, from Medical Practitioners at Dorchester; by Mr. T. Cave, from Physicians and Surgeons at Barnstaple; by Sir H. Johnstone, from Malton, Easingwold, and its vicinity; by Mr. Bentinck, from Whitehaven; by Mr. F. Walpole, from St. Margaret's; by Colonel Dyott, from Lichfield; by Sir F. Goldsmid, from Reading; by Mr. E. J. Sartoris, from Carmarthen; by Sir T. Bazley, from Manchester; by Mr. J. D. Harris, from Market Harborough and Leicester; by Mr. Wheelhouse, from Selby and neighbourhood; by Mr. B. Hughes, from Bangor and Llandudno; by Mr. N. Grosvenor, from Chester; by Mr. W. Hoskyns, from Hereford; by Mr. Locke King, from Croydon; by Mr. Dodds, from Stockton-upon-Tees and the neighbourhood; by Colonel Stepney, from Llanelly; by Mr. J. D. Lewis, from Devonport and its neighbourhood; by Mr. Graves, from Liverpool; by Lord R. Grosvenor, from Holywell; by Mr. Philips, from Bury; by Mr. J. Lowther, from York; and by Mr. Wheelhouse, from Brighouse and neighbourhood, Letter Kenny and neighbourhood, Black Torrington and neighbourhood, Frodsham, Retford, and other places.

Petitions praying for certain alterations in the Medical Acts Amendment Bill were presented, by Mr. Hick, from Bolton-le-Moors; by Mr. Hinde Palmer, from Medical Practitioners at Lincoln: by Mr. Kinnard, from the vicinity of Hyde Vale; by Mr. Norwood, from Pocklington; by Mr. Figgins, from Shrewsbury; by Mr. M'Laren, from the Royal College of Physicians of Edinburgh; by Mr. Tollemache, from Tarporley; and by Mr. Hanbury Tracey, from Welshpool.

Petitions against the Medical Act (1858) Amendment Bill were presented, by Mr. Hurst, from the Medical Practitioners of Horsham; by Mr. H. Beaumont, from Practitioners of Mirfield and Doncaster; by Mr. E. Smith, from Tynemouth; by Mr. Sclater-Booth, from Dr. Macintyre, of Odiham; by Mr. C. Howard, from Penrith; by Mr. S. Beaumont, from Wakefield; by Mr. Dixon (13), from Medical Practitioners in Birmingham; and by Colonel Bourne, from Evesham.

Sir J. Gray asked whether any explanation could be given why the several Medical authorities in the three kingdoms had not complied with the order of this House, made on May 24 last, to send in the returns specified in the said order, and whether any means could or would be taken to insure compliance with that order.

Mr. Knatchbull-Hugessen replied that most of the returns would be presented to-night.

Major Anson asked the Secretary of State for War whether he intended to request permission for a British military Surgeon of experience to be attached to the head-quarters of the French and Prussian armies, for the purpose of studying and reporting upon the effects of the more recent inventions of modern warfare, and the most approved method of transporting sick and wounded men during rapid movements of troops.

Mr. Cardwell replied: The Director-General of the Army Medical Department has called my attention to the importance of the measure suggested by my hon. and gallant friend, and I will endeavour to carry it into effect.

In the House of Commons on Friday, July 22,

Petitions in favour of direct representation of the Medical Profession in the General Medical Council were presented, by Mr. R. Winn, from Medical Practitioners of Gainsborough and its neighbourhood; by Mr. C. Seely, from Nottingham; by Mr. Rylands, from Warrington; by Mr. Shaw-Lefevre, from Reading; by Mr. Brodrick, from Reigate; by Mr. S. S. Marling, from Oldland; by Mr. Locke King, from Caterham, Godstone, and Bletchingley; by Mr. Graves, from Liverpool, Withington, and Didsbury; by Lord F. Cavendish, from Wirksworth; and by Mr. Read, from Medical men, South Norfolk.

In the debate on the second reading of the Census Bill,

Sir J. Lubbock suggested that the number of marriages between cousins should form a part of the information required. It was believed that consanguineous marriages were injurious throughout the whole vegetable and animal kingdoms, and it was desirable to ascertain whether that was not the case with the whole human race. Having referred to the authority of Mr. Darwin on the subject, the hon. baronet remarked that the information in question might be obtained in this country by one simple census.

On Monday, July 26,

In the House of Lords,

The Medical Officers' Superannuation Bill was read a third time and passed.

In the House of Commons,

Petitions praying for the direct representation of the Profession in the Medical Council under the Medical Amendment Act, were presented, by Mr. Walter, from Medical Practitioners in Maidenhead; by Mr. Wheelhouse (34), from Hastings, Wellingborough, Tobermorey, and neighbourhood, also from Guildford, Alfreton, Ripley, Clifton, Sedberg, and neighbourhood, also from Coatham, Bristol; Heckmondwicke and Gomersal, Hawkhurst, Wootton-under-Edge, Dalkeith and neighbourhood; also from Holbeach, Long Sutton and Moulton, and other places; by Lord C. J. Hamilton, from King's Lynn; by Viscount Newport, from Whitchurch, Oswestry, and the Salopian Medico-Ethical Society; by Mr. W. H. Smith, from St. George's, Hanover-square; by Baron M. de Rothschild

from Folkestone; by Sir C. Dilke (2), from Kensington and Chelsea; by Mr. J. G. Talbot, from the President, Council, and members of the Metropolitan Counties Branch of the British Medical Association; by Mr. Raikes, from Cheltenham, and the parish of St. George, Hanover-square; by Major Morgan, from Hay and Newport, Monmouthshire; by Mr. Ormsby-Gore, from Broseley and Ironbridge; by Mr. W. H. Foster, from Bishop's Castle, Bridgnorth, Market Drayton, and Montgomery; by Mr. P. W. Martin, from Rochester; by Mr. A. H. Brown, from Madeley and Much Wenlock; by Mr. T. Chambers, from St. Marylebone; by Mr. Backhouse, from Darlington; by Lieutenant-Colonel W. Clive, from Ludlow; and by Mr. S. Holland, from Festiniog and neighbourhood.

In answer to Dr. Playfair,

Mr. W. E. Forster said the Government found themselves reluctantly under the necessity of withdrawing the Medical Act (1858) Amendment Bill, as it would be impossible at this period of the Session to deal with the question of the constitution of the Medical Council, which there was a desire in some quarters that the Bill should embrace.

On Tuesday, the 26th inst., in the debate on the Census Bill in the House of Commons.

Sir J. Lubbock, seconded by Dr. Playfair, proposed to take a census of marriages between first cousins, but Mr. Hardy protested against this use of the census, which he pointed out might give pain to many persons; while Mr. Bruce, on the other hand, thought it a very legitimate and possibly useful subject of inquiry.

Dr. Dalrymple and Mr. Rathbone supported Sir J. Lubbock, but Mr. Beresford Hope declared the information thus obtained would be fallacious. Mr. Locke protested in his usual racy style against allowing the philosophers to meddle with the census; and Mr. Collins and Mr. Melly held that the facts would be useless, as the inquiry went much further than this particular class of marriages. On a division Sir John Lubbock was beaten by 92 to 45.

Numerous petitions from Medical men in various parts of the country praying for direct representation in the Medical Council were presented on Tuesday and Wednesday.

On Wednesday,

Dr. Brewer gave notice that he would, early next session, ask leave to bring in a Bill to amend and consolidate the Medical Acts.

DR. SHAW'S REPORT ON RELAPSING FEVER.

Dr. Shaw, the Medical superintendent, has addressed to the managers of the Metropolitan Asylum District a very interesting report on the work of the temporary Fever Hospital at Hampstead since its opening in January last. From the 31st of that month, when the first cases were received, to May 15, the last day on which fresh cases were admitted, 218 patients were treated, whilst, owing to want of space, some were refused. It appears that a large proportion of the paupers sent up had not relapsing fever at all, and when any such case was discovered it was at once, if possible, sent back to the workhouse.

Fourteen deaths occurred—11 men and 3 women—from the following causes:—Aortic aneurism, 1; relapsing fever, 3; toxæmia, 6; broncho-pneumonia, 1; phthisis, 1; muco-enteritis, 1; acute gastritis, 1. Dr. Shaw thus refers to the cases which he has classed under the head of "toxæmia":—"These have been, as a rule, tramps, who have been walking long distances, living wretchedly on bread and water for weeks, never washing, and whose blood has become thoroughly contaminated by the altered metamorphosis of tissue consequent on their abnormal mode of life. They are sent up with some of the symptoms of relapsing fever—viz., shivering, pains in limbs, jaundice, etc.—but when watched they are found to have no relapse whatever, no crisis, nothing, in fact, specially distinctive of relapsing fever as opposed to the symptoms of toxæmia. They require much stimulating, great watchfulness in the delirium, which is an almost constant accompaniment, and are most protracted in their convalescence." A very curious point in relation to the disease, and one to which, we believe, Dr. Shaw has been the first to call attention, is that, *with scarcely any exception*, the patients have been *very dark* complexioned. Dr. Shaw says, "Not only have those with dark hair, muddy skin, and 'bilious temperament' been those most attacked, but in them the disease has assumed its most severe aspect, the pains have been greatest, the crisis most determined, and the relapse most regular in its time of occurrence. This peculiarity has on many occasions materially assisted me in determining the true nature of a doubtful case." The proportions of 100 male cases are thus given, and are striking:—Very dark, 51 per cent.; dark, 40; rather light, 8; very light, 1 per cent. Of 100 female cases thus:—Very dark, 80; dark, 20.

The great preponderance of cases came from the south and central districts of the metropolis, the greatest number being sent from the south district, comprising St. Saviour's, 44; Rotherhithe, 2; Greenwich, 7; Camberwell, 48. Total, 101.

In both sexes the persons most liable to be attacked were those from 15 to 40 years of age, and the number of children seized, and their recovery after most severe symptoms, formed a marked contrast to what is observed in typhus. As a rule, taking the instance of a person about 25 years old, with a moderate seizure, the period of treatment has been from three to four weeks. A curious feature is the large number of insane persons who have been admitted as suffering from the fever. Two of these attempted suicide; another suddenly rushed out of bed, and pushed his head through a pane of glass, under the influence of delusions. There was no case of relapsing fever amongst the nurses and sisters, or any of the laundry-women, and Dr. Shaw attributes this immunity to the large cubic space of the wards, liberal diet, and free use of disinfectants. The report contains this tribute to the merits of nursing sisterhoods:—"The nursing has been very thoroughly and ably performed by the East Grimstead Sisters, and I take this opportunity of bearing witness to their untiring zeal and ceaseless efforts to promote the good of the patients. When it is considered that our population here has been formed from the greatest outcasts of society, it is wonderful to reflect upon the quietude and order that have, with one or two very slight exceptions, prevailed, and to know that some of the most hardened characters have been softened, and encouraged to lead more useful lives. The knowledge that whatever orders are given will be well carried out, is very assuring to those who have the responsibilities of patients, and it will be well for public bodies charged with the administration of Hospitals when they recognise the advantages of Nursing Sisters."

SILICO-PROPIONIC ACID.

An extremely interesting chapter of chemistry was opened a few years ago by MM. Friedel and Ladenburg, who have succeeded in constructing a number of organic compounds wherein the part usually played by carbon is taken by silicon. Among these compounds may be mentioned a representative of mercaptan wherein there exists silicon instead of carbon. The latest step in this direction is the production of a silicated member of the fatty acids—viz., silico-propionic acid. The stages of the process by which this compound has been built up are—

1. The production of the compound $SiCl(C_2H_5O)_3$, which is got by the action of alcohol on chloride of silicon.

2. The substitution of ethyl for the chlorine in the first compound, whereby it is transformed into $SiC_2H_5(C_2H_5O)_3$. This is done by the employment of Mr. Wanklyn's energetic reagent, sodium-ethyl, which alone, of all known substances (except its fellow potassium-ethyl), is sufficiently potent to effect reductions of this description.

To the compound $SiC_2H_5(C_2H_5O)_3$ the name "ortho-silico-propionic ether" has been given by its discoverers. In order to convert it into the acid silico-propionic acid, it is only necessary to exchange two equivalents of ethyl-oxide for one atom of oxygen, and one equivalent of ethyl-oxide for one atom of hydroxyl. This has been managed by first using chloride of acetyl, which gives acetic ether and $SiC_2H_5Cl_3$, and by allowing this chlorinated substance to act upon water, with which it produces hydrochloric acid, and the desired compound silico-propionic acid, $SiC_2H_5O_2H$. The new silicon-fatty acid is in external character very like silica, being a white amorphous powder. On being strongly heated, however, it burns.

Cholagogue Pills.—M. Gubler recommends the following pills as aperients in disease of the liver or heart, one or two being taken weekly:—Socotrine aloes, gamboge, calomel, of each 15 grains; extract of dandelion, q. s. To make ten pills.—*Union Méd.*, June 28.

NOTES OF A CLINICAL LECTURE

UPON

SOME ANOMALIES AND COMPLICATIONS OF SCARLET FEVER.

By Professor OPPOLZER,
Professor of Medicine in the University of Vienna.

In no disease do we meet with symptoms more anomalous than in scarlet fever. The intense fever which generally ushers in the eruption may be very slight or altogether absent, or sometimes gastric symptoms, as foul tongue, nausea, vomiting, may be the only forerunners of the disease, or a severe protracted angina may precede the eruption, which may after all be only partial, of pale red colour, of short duration, and followed by only slight scaling. Scarlet fever *without eruption* is very rare, though the skin symptoms may be so slight as to be overlooked, and the true nature of the disease only suspected from after symptoms.

A more serious form of scarlet fever is that in which the fever sets in with severe headache and delirium, and is accompanied with great prostration, diarrhœa, and bloody stools, meteorismus, dry tongue, etc. The eruption is imperfectly developed, lasts a short while, and then recedes, and the whole form of the disease corresponds more with typhoid than scarlet fever. In more malignant cases a dusky discoloration takes place in various parts of the body, with petechiæ and ecchymoses, while hæmorrhages from the nose, mouth, bladder, and rectum, are not uncommon. Such cases may be rapidly fatal. A low type of inflammation of the mucous membrane of the throat occurs in many epidemics. In such case, either before or during the eruption of the exanthem, the mucous membrane of the pharynx swells, the tousils and uvula become enormously enlarged, the throat is narrowed, swallowing becomes impossible, and fluids regurgitate through the nose —morbid changes which may lead to extensive gangrene and death.

In many cases the inflammation terminates in profuse suppuration. The mucous membranes become covered with a dirty purulent exudation; extensive ulceration follows. The ulcers become covered with pus and the detritus of the tissue around, which give a most offensive odour to the breath. The inflammation extends to the glands of the neck and the lymphatics beneath the lower jaw, which become enormously swollen. If the character of the epidemic be malignant, then swellings may rapidly suppurate, open, and involve a large destruction of surrounding tissue. In many cases, especially in children, these symptoms are accompanied by convulsions, coma, a very small weak thready pulse, and death in a few days. In more favourable cases the swelling subsides, and the ulcers heal.

In severe epidemics the inflammation of the mucous membranes may assume a diphtheritic type, and extend over the nares. The fever is then very intense, and of a *typhoid* character. The mucous membrane of the throat and mouth is covered with a diphtheritic membrane, with profuse serous very offensive discharge from the nose. The false membranous exudation quickly breaks down, and intense head symptoms—headache, coma, convulsions, set in. Inflammation of the salivary glands, and the lymphatics in the neck, with inflammation of the cellular tissue of the neck, is observed more frequently in scarlet fever than any other febrile disease; generally the eruption is full, and the fever runs high. Not unfrequently extensive and diffuse inflammation of the cellular tissue and glands in different parts of the surface of the body occurs; and this may assume a most dangerous form if the inflammation involves the more internal parts: for instance, the structures behind the pharynx. Oppolzer has seen many cases of retropharyngeal abscess obstructing the gullet, and preventing the patient from swallowing. In one case there was extensive sloughing of the cellular tissue of the right inguinal region in a boy twelve years of age, leading to erosion of the bloodvessel, and hæmorrhage.

But affection of the kidneys is the most frequent complication of scarlet fever. It may occur either early or late in the course of the complaint; and generally leads to anasarca or dropsy, usually about the third week of the disease. Nephritis may come on very slowly and gradually, and is *sometimes* only recognisable by careful examination of the urine.

In other cases nephritis ensues with high fever, great debility, vomiting, and sometimes diarrhœa. The lumbar region becomes tender; the urine scanty, cloudy, brown-red, and containing red blood-cells; its specific gravity generally high, and containing albumen in greater or less quantity. Characteristic of the complaint is the appearance of casts of the kidney tubes. But there are cases in which the first symptoms of nephritis occur *in the beginning of the complaint*, and only a few days after the eruption, though the urine is neither diminished, nor yet contains blood or albumen. Affection of the kidneys may result in ascites, anasarca, or serous effusion into the different cavities of the body, or these symptoms may be absent, and the disease show itself by the presence of convulsions, coma, and paralysis, as the consequence of uræmia.

A great difference in the character of the urine is observed *during the development*, and during the course of scarlet fever.

During its development albuminuria very seldom occurs. Yet even then a very careful examination may detect degenerated epithelial cells in considerable quantity with some blood and casts. These symptoms point to catarrhal affection of the urinary tubes, and in a great number of cases are absent. In the clinique cases have often been observed, in which at the commencement of the disease the urine has been quite clear, and yet, on standing a short while, a soft, opalescent, mucous cloud has formed, which, under the microscope, was found to consist, for the most part, of epithelial cells, and, sooner or later, substances like casts. But *similar* appearances are found in the urine *in other acute diseases*—viz., in pneumonia, meningitis, typhus, acute peri- and endocarditis, measles, etc.; and, with regard to them, we can only say that, in many acute febrile diseases, a metamorphosis of the tissues of the internal organs takes place, especially of the epithelial cells, which become detached and loosened. This is especially the case with the kidneys. The question is still undecided, whether these deposits in the urine are merely the result of the fever, or are a specific product of the scarlet fever process. But it may be said, in cases where the scarlet fever occurs *without any feverish symptoms*, that these changes are not found in the urine, and are generally absent in slight cases of the malady.

In the case of the boy, aged 10, whose case we have lately observed, a copious urinary deposit was seen during *the first two days of the eruption*, but a microscopical examination gave no result. On the *third* day of the eruption, however, there was observed a mucous clouding of the urine, which, under the microscope, was seen to contain a few cast-like bodies, extremely transparent, and provided with fine grey granules, with isolated cloudy epithelium of the mucous membrane of the tubes. It was curious that in this case distinct traces of albumen were first found on the fifth day of the disease in the form of an opalescent layer, which continued without change, and without increasing, for eleven days. Since then the urine has been quite normal. In this case the fever was severe for two days, and the urinary deposits may have been the consequence of this, and not the result of a specific change.

In cases of scarlet fever in which sooner or later some complication of the kidneys takes place, sensitiveness of the lumbar region is observed: either real pain or tenderness on pressure.

Dropsy.—There is much variation in this symptom. It begins usually in the face and eyelids, and spreads over the whole surface of the body; in the acute cases it reaches a considerable degree, and is accompanied by increased temperature of the skin, but in the more chronic forms of nephritis the dropsy comes on gradually, and is less extensive, the urine of a whitish yellow colour, thick, opalescent, and its specific gravity is diminished.

In many cases *serous effusion* takes place into the different cavities of the body; *more rarely* into the interstitial tissue of the lungs, when it may be mistaken for pneumonia. In one case Oppolzer witnessed an *enormous* œdema of the scrotum, and in another, serous effusion into the tunica vaginalis testis.

Œdema does not occur in all cases of nephritis scarlatinosa with albuminuria; the dropsical symptoms are often absent in very acute cases, but other serious symptoms supervene instead —viz., collapse, nausea, vomiting, coma, convulsions; symptoms which depend upon uræmia.

In one case only has Oppolzer seen a very rare complication of scarlet fever—namely, *transitory paralysis*—which doubtless depended upon serous effusion into the meninges of the spinal cord.

Serous effusion into the lungs is indicated by severe fits of coughing, dyspnœa, and cyanotic face. The œdema involves a whole lobe, so that the percussion note is dull, and numerous consonant râles are heard. The patient in these cases may die

asphyxiated, delirious, or comatose; or the exudation may be absorbed, and recovery take place.

Nephritis is observed *frequently* in some epidemics, *seldom* in others. Sometimes it supervenes with very acute symptoms at quite an early stage.

The *eruption* varies very much. Sometimes the inflammation of the skin is between the cutis and epidermis, and sometimes during the eruption exudation takes place into the cellular tissue of the cutis, causing more or less swelling. In some parts the exudation may collect in considerable quantities, and cause the epidermis to be raised into bladders.

The *blood* in scarlet fever has not been found to differ from the blood in other acute diseases.

The *pathological* changes of the internal organs are very various after scarlet fever. Hyperæmia of the brain and its membranes, and sometimes granulations on the meninges, are found in cases where the head symptoms have been severe. The mucous membrane of the throat, uvula, and tonsils, is usually found ulcerated, sometimes covered with false membranes. The parotid and submaxillary glands with surrounding cellular tissue, are often found swollen, infiltrated, and inflamed; and there is hyperæmia and enlargement of the parenchymatous organs.

If the scarlet fever has been complicated with Bright's disease, œdema of the whole body and serous effusions into the serous cavities are found. The kidneys are hyperæmic and swollen; their cortical substance has a granular look; and in the urinary tubes are found casts, and blood, with fatty degeneration of the epithelial cells.

EXPERIMENTAL RESEARCHES ON THE SPINAL CORD.

By MM. MASIUS and VANLAIR.

The authors commence their memoir with a histological examination of the *filum terminale* of the spinal cord of the frog. At its posterior extremity this *filum* is exclusively formed of layers of epithelial cells, surrounded on the outside by the *pia mater*, and enclosing a canal which ends in a *cul-de-sac*. More in front they find, beyond the epithelial mass, some larger multipolar cells, with nucleus and nucleolus (nerve cells) lying between the pia-mater and the epithelium; still more anteriorly, they observe pale, varicose, and longitudinal nerve-fibres, the existence of which Kölliker had already pointed out. At the point of emergence from the coccygeal canal, the stratum of radiating cells and fibres gradually becomes thicker as far as the origin of the tenth spinal nerve. The prolongations of the nerve cells are continuous with those of the epithelial cells. Upon the lateral and anterior faces of the *filum terminale* at this point, the multipolar cells approach each other, and admit in the narrow intervals between them longitudinal fibres, to which they at length give place. The authors compare the results of their labours with former works on the same subject with reference to man and the frog, and conclude that the *filum terminale* of the adult frog resembles the human spinal cord checked in its development, so that each segment of the *filum* represents one of the successive phases through which the human cord passes in its primary formation.

The second part of the memoir has reference to the experiments which the authors made to determine the corresponding cutaneous and medullary regions (*territoires*) of the spinal nerves of the frog; a subject already handled by Peyer, Türk, Krause, Eckhardt, and Koschennikoff. The results agree more or less with those of the last-named author. They prove further that there is no root presiding exclusively over the perceptive (*conscient*) sensibility, and that the cutaneous region, the irritation of which provokes a perceptive sensibility, is for each nerve the same as that which can produce a reflex action; an observation which is opposed to Marshall Hall's hypothesis regarding the excito-motory fibres.

Passing to the medullary region of the posterior roots of the frog, the authors admit that all the fibres for perceptive sensations ought to end, directly or indirectly, in the brain; but there are centres, especially at each root, which regulate the reflex movements. Their results, as regards the position of the centres of reflex action, agree on the whole with those of M. Koschennikoff, but in detail they present marked differences, which the authors explain by the inconstancy both of the cutaneous regions and of the points of emergence of the roots. To avoid as far as possible the diminution of irritability consequent on so serious an operation as opening the vertebral canal, they made each experiment upon an uninjured frog, by a single cut, and then tested the persistence of the reflex excitability. An autopsy was subsequently made, and the distance measured between the cut and the emergence of the root. This last was rendered more visible by colouring the fibres with hyperosmic acid. We will not enter upon a description of the results obtained, but content ourselves with observing that there is a series of successive centres. The centre of each root commences immediately behind the preceding root, and ends immediately behind its own origin, being therefore upon a transversal line which joins the points of emergence. Behind the tenth pair the cord is not the seat of a reflex centre. The nerve cells of this portion send out sensitive and motor fibres towards the tenth pair, but the cells of these fibres do not communicate amongst themselves, as they would of necessity do if the reflex movements, which fail at this point, were present.

After these preliminary studies, the memoir treats of the anatomical and physiological researches, made by the authors, on the reproduction of the spinal cord in the frog. Schwann, from whose report on this memoir we have compiled this abstract, was the first who verified the reproduction of the nerve trunks in the frog; the reproduction of the cord had never been clearly proved by anatomical or physiological researches. Recently, M. Voit has shown that in pigeons, the hemispheres of the brain can be reproduced after extirpation. According to the authors, the want of success of the experiments upon the reproduction of the cord in frogs probably proceeds from the season, and the too great age of the animals. They have operated on little frogs full of life, and those experiments only which were made during the winter (that is from November to the end of February) were successful. The authors were not content with simply cutting through the cord, but they actually removed sections from one to two millimetres in length. After about six months the healing was complete, and all the functions had returned. These latter came back in the following order:—First, the spontaneous fibrillary movements in the thighs, then voluntary movement of the whole of the thigh, extending gradually to the knee and the foot. The perceptive (*conscient*) sensibility only appeared more slowly, and sensibility and the power of reflex motion were the last to present themselves. The autopsy and the microscopical examination of the reproduced cord showed that the end of the cord in front of the section was a little swollen, as in the case of nerves that have been divided; the posterior end was rounded, and between the two ends there was a substance, at first gelatinous, in which they found multipolar nerve cells, and nerve fibres in the form of Remak's fibres and varicose fibres. The cells appeared before the fibres. They found besides in this gelatinous mass, and in the two ends of the cord, near the point of section, nerve cells in a state of pigmentary degeneration.

Such are the principal results of this interesting work. It fills up a gap which existed in our knowledge of the reproduction of nerve tissue, and closes the list of numerous new observations upon the anatomy and physiology of the cord and spinal nerves of the frog.

AGASSIZ ON THE RACES OF MAN.

In the "Journey to Brazil," recently published (1868) by Professor and Mrs. Agassiz, there is much new and interesting information on the many varieties of the coloured races produced by the crossing of Indians, negroes, and whites, which the Professor has recorded, as we learn by his wife's journal, not only in notes, but in a very complete series of photographs. Mrs. Agassiz inserts in the volume now before us a few extracts from these notes, which, we are sure, will be read with interest.

"However naturalists may differ respecting the origin of species, there is at least one point on which they agree—namely, that the offspring from two so-called different species is a being intermediate between them, having the peculiar features of both parents, but resembling neither so closely as to be mistaken for a pure representative of the one or the other. I hold this fact to be of the utmost importance in estimating the value and meaning of the differences observed between the so-called human races. I leave aside the question of their probable origin, and even that of their number, as for

my purpose it does not matter whether there are three, four, five, or twenty human races, and whether they originated independently from one another or not. The fact that they differ by constant permanent features is in itself sufficient to justify a comparison between the human races and animal species. We know that, among animals, when two individuals of different sex, and belonging to distinct species, produce an offspring, the latter does not closely resemble either parent, but shares the characteristics of both; and it seems to me of the highest significance that this fact is equally true of any two individuals of different sexes belonging to different human races. The child born of negro and white parents is neither black nor white, but a mulatto; the child born of white and Indian parents is neither white nor Indian, but a mameluco; the child born of negro and Indian parents is neither a negro nor an Indian, but a cafuzo; and the cafuzo, mameluco, and mulatto share the peculiarities of both parents, just as the mule shares the characteristics of the horse and ass. With reference to their offspring, the races of men stand, then, to one another in the same relation as different species amongst animals; and the word *races*, in its present significance, needs only to be retained till the number of human species is definitely ascertained, and their true characteristics fully understood. I am satisfied that unless it can be shown that the differences between the Indian, negro, and white races are unstable and transient, it is not in keeping with the facts to affix a community of origin for all the varieties of the human family, nor in keeping with scientific principles to make a difference between human races and animal species in a systematic point of view. In these various forms of humanity there is as much system as in anything else in nature, and by overlooking the thoughtful combinations expressed in them, we place ourselves at once outside of the focus from which the whole may be correctly seen.

"In consequence of their constancy, these differences are so many limitations to prevent a complete melting of normal types into each other, and consequent loss of their primitive features. That these different types are genetically foreign to one another, and do not run together by imperceptible intermediate degrees, appears plain when their mixtures are compared. White and negro produce mulattoes, white and Indian produce mamelukes, negro and Indian produce cafuzos, and these three kinds of half-breeds are not connecting links between the pure races, but stand exactly in that relation to them in which all hybrids stand to their parents. . . . . All these human half-breeds share equally the peculiarities of both parents, and, though more fertile than half-breeds in other families of the animal kingdom, there is a constant tendency to revert to the primary types in a country where three distinct races are constantly commingling, for they mix much more readily with the original stocks than with each other. . . . The natural result of an uninterrupted contact of half-breeds with one another is a class of men in whom pure type fades away as completely as do all the good qualities, physical and moral, of the primitive races, engendering a mongrel crowd as repulsive as the mongrel dogs which are apt to be their companions, and amongst which it is impossible to pick out a single specimen retaining the intelligence, the nobility, or the affectionateness (*sic*) of nature which makes the dog of pure type the favourite companion of cultivated man."

The remaining portion of the notes is devoted to the question of "species," on which Professor Agassiz has written a well-known volume. His views on this subject, in so far as the races of men are concerned, may be briefly summed up as follows:—He believes the boundaries of species to be precise and unvarying, based upon a category of characters quite distinct from those on which genera, families, orders, and classes are founded. These characters are to be sought for in the relations of individuals to one another and to their surroundings, and in the relative dimensions and proportions of parts, and are no less permanent and constant in the different species of the human family than in those of any other family in the animal kingdom.

The photographs to which allusion was made at the beginning of this article were taken during their stay at Manaos by Prof. Agassiz and one of his assistants, Mr. Hannewell. They form a very complete series of characteristic pictures of Indians and negroes, and half-breeds between both these races and the whites. All these portraits represent the individuals selected in three normal positions—in full face, in perfect profile, and from behind. At the commencement of their labours the photographers met with an unexpected difficulty in consequence of a prevalent belief that a portrait absorbs into itself something of the vitality of the sitter, and that any one is liable to die shortly after his picture is taken. Very soon, however, the desire to see themselves in a picture overpowered their fears, and a few courageous ones having set the example, the difficulty of obtaining models ceased.

We are very glad to hear that these illustrations, as well as those of pure negroes made for the Professor in Rio by Messrs. Stahl and Wahnschaffe, are shortly to be published, with explanatory text.

Although Professor Agassiz, in his late "Journey in Brazil," specially gave his attention to the investigation of the fluviatile fauna of the Amazons, he devoted what time he could spare from that special pursuit to the study of the different nations and cross-breeds which he met with in his travels. Not having leisure to make minute measurements of crania, according to the methods of recent anthropologists, he adopted what he terms "the natural history method," or, in other words, the comparison of individuals of different kinds with one another, just as naturalists compare specimens of different species; and this process was much simplified by the fact of a large number of the population going about half-naked and being frequently seen entirely undressed.

The first point that struck him on seeing Indians and negroes together was the marked difference in the relative proportions of the different parts of the body. The negroes are generally slender, with long arms and legs, and a comparatively short body; whilst the Indians are of a heavy build, with short arms and legs, and with a comparatively long body. The former remind us of the slender, active Hylobates, while the latter are suggestive of the slow, inactive, stoutly-built Orang.

Another equally striking feature is the short neck and great width of the shoulders in the Indian. This peculiarity is quite as marked in the female as in the male, and gives to the Indian woman when seen from behind a very masculine appearance. In the negro, on the other hand, the narrowness of chest and shoulders usually characteristic of the female sex is almost as marked in the man, and, as the Professor observes, the negro male is as remarkable for his feminine aspect as the Indian female is for her masculine build.

If we take a front view of an Indian woman and a negress, we see that in the former the interval between the two breasts is nearly equal to the diameter of one of them, while, in the latter, they stand in almost immediate contact. Moreover, the form of the breast in the two races is different. The Indian woman has a firm conical breast, the point of it being turned so far sideways that, in a front view of the chest, the nipple is actually projected on the arm; while, in the negress, the breast is flaccid, and more cylindrical, and the nipple is turned forwards and downwards, so that, in a front view, it is projected on the chest. The legs differ not merely in length, but in form and carriage. While, in the Indian, they are straight, in the negro the knees are bent in, and the hip and knee-joint habitually flexed. In the Indian of both sexes the interval between the shoulders is much greater than in any other race, while, in the negro, the distance between the shoulder blades is comparatively small, and the fingers are more extensively webbed than in any other race. The difference between the heavy, straight black hair of an Indian and wrinkled, woolly hair of the negro is too well known to require more than a passing notice.

The physical and moral deterioration resulting from the admixture of pure races is, perhaps, nowhere so clearly shown as in Brazil. The hybrid between the white and the negro, called the mulatto, is too well known to require description. The hybrid between the Indian and the negro, called cafuzo, has none of the delicacy of the mulatto; his complexion is dark, his hair long, wavy, and curling, and his character, instead of being "confiding, but indolent," is described by Agassiz as exhibiting "a happy combination between the jolly disposition of the negro and the energetic, enduring powers of the Indian." The hybrid between the white and Indian is called mameluco, and is described as being pallid, effeminate, feeble, lazy, and rather obstinate, the Indian influence having apparently obliterated the higher characteristics of the white, without imparting its own energies to the offspring. It is very remarkable that the Indian, whether in crossing with a negro or a white, makes a deeper impress on his progeny than the other races; and, in accordance with this fact, it is observed that, in further crossings, the pure Indian characteristics are resumed, and those of the other races thrown off. "Let any one," says Professor Agassiz, "who doubts the evil of this mixture of races, and is inclined, from a mistaken philanthropy, to break down all barriers between them, visit Brazil. He cannot deny the deterioration consequent upon an amalgamation of races more widespread here than in any other country in the world, and

which is rapidly effacing the best qualities of the white race, the negro, and the Indian, leaving a mongrel nondescript type, deficient in physical and mental energy. Let us profit by the experience of Brazil, and learn the double lesson: open all the advantages of education to the negro, and give him every chance of success, but respect the laws of nature, and preserve, as far as possible, the distinctness of his natural characteristics and the integrity of our own."

REVIEWS.

A Theoretical and Practical Treatise on Midwifery, including the Diseases of Pregnancy and Parturition. By P. Cazeaux, Member of the Imperial Academy of Medicine, etc., etc. Adopted by the Superior Council of Public Instruction. Revised and annotated by S. Tarnier, Adjunct Professor in the Faculty of Medicine, etc., etc. Fifth American, from Seventh French Edition, by W. R. Bullock, M.D.

Cazeaux's work on Midwifery had passed through six editions in Paris, when he was suddenly struck down by disease, which soon proved fatal. M. Tarnier was then charged with the preparation of a seventh edition, and this has formed the foundation of a fifth American edition, published by W. R. Bullock, M.D. A work, therefore, so popular in France and America must necessarily become so here; we shall therefore endeavour to point out such particulars as may prove interesting. The arrangement of the work is different from that generally observed. It will be sufficient to enumerate the parts into which it is divided to perceive the peculiarity. Part I. is the Anatomy of the Generative Organs. Part II. Pregnancy. Part III. Labour. Part IV. Pathology of Pregnancy. Part V. Distochia, or Difficult Labour. Part VI. Therapeutics. Part VII. Obstetric Operations. Part VIII. Hygiene of Children, from the period of birth to weaning. Thus pregnancy and its diseases are separated by labour, and labour natural and difficult have interposed between them the pathology of pregnancy. Obstetric operations are left to the last. Nevertheless the work is valuable, and enters upon some subjects not generally alluded to. For instance—Does the child respire before birth? The argument that where there is no air there can be no respiration he meets by asking, Does it follow that the sanguineous fluid will experience no similar modification at any part of its circuit? Most physiologists think otherwise, and I (Cazeaux) share their opinion. He then reviews the opinions of Beclard, Geoffroy St. Hilaire, Bischoff, Serres, some considering that the amniotic fluid acts the part of the atmospheric air, others, as Serres, considering that the breathing apparatus of the human ovule consists of the chorion, the two layers of the decidua, the liquor contained between the latter, and of a peculiar class of villi, called by him *branchial*, which, after having traversed the reflected decidua, come into contact with this liquid. M. Serres believes that this arrangement presents all the conditions of a branchial respiratory apparatus. As the embryo is developed and grows, one part of the villi of the chorion is transformed into the placenta, and the fœtal respiration in the uterus then commences a second time as the placental respiration. Thus the term respiration is applied to the changes produced on the blood by the villi and the liquor amnii, rather a difficult subject for investigation, and one which makes the word bear a much more extensive meaning than is generally applied to it.

In alluding to the signs of pregnancy, he speaks with confidence of Montgomery's sign from the appearance of the breast and areola, but mentions some remarkable exceptions. "In 1837 he saw a strong vigorous young brunette at La Clinique, who had advanced to the end of gestation without any of the indicated marks appearing around the nipple; and I have since made the same observation on several occasions." On the other hand, M. Tarnier states, "We have examined a young woman in whom both vagina and uterus were absent, although the external genital parts were well formed. Pregnancy in such a case is evidently impossible, yet here the true areola was of a very dark colour, and the dotted one very decided." The passive movements or *ballottement* is accurately described. It can only be employed between the fourth and eighth month. Previous to the fourth month the fœtus is too light, and floats too much in the liquor amnii. After the eighth month it is too heavy to be moved easily; but in the middle period *ballottement* may be employed. The action has been compared to the sensation produced by placing a ball of marble in a bladder full of water, and then striking the bladder with the finger just where the ball rests, when the latter is thrown up and falls back from its own weight upon the finger which displaces it. Velpeau directs the index finger of one hand to be placed under the cervix, and the palmar face of the other over the fundus uteri, then by a sudden movement of the finger in the vagina the uterus is to be pushed upwards; being movable, free, and the only solid body in the amniotic fluid, the fœtus ascends, strikes the point diametrically opposite, and falls back upon the finger which gave it the impulse.

Cazeaux, however, objects to this plan as being unsatisfactory. He recommends the following mode of performing the operation:—The vaginal finger should not be placed under the cervix, because it will then be separated from the fœtus by the whole length of the neck, and, of course, the finger cannot recognise so clearly the descent of the displaced body, but rather in front of or behind the neck (according to the woman's position), upon the walls of *the body itself*, for then the index is only removed from the substance to be examined by the very thin walls of the inferior region of the uterus, and it detects very readily the least motion of the enclosed fœtus.

If the woman is standing, the index-finger should be introduced in a vertical position with its palmar face turned forwards, and the other three fingers flexed upon the palm. *Ballottement* may also be effected in the recumbent position, but the erect position is usually more favourable to the perception of the *ballottement*, and, therefore, preferable. Such are M. Cazeaux's views on this mode of testing the presence of pregnancy, which may be adopted perhaps easily in France, but here there are obvious objections which might make the Practitioner reluctant to employ this method.

The author then proceeds to the consideration of labour, and in mentioning its efficient causes describes those instances in which children have been delivered after death. In proof he quotes a remarkable case published by Dr. Herman in the *Edinburgh Medical Journal*. "A young woman died in her tenth month, and the third day after the attendants heard a strange noise about the corpse. A Physician was hastily summoned, who found that twins, still inclosed by the intact membranes, had been just delivered." Having given several paragraphs on the physiological phenomena of labour, he concludes with the effects of labour on the mother and child. He mentions instances of temporary delirium during the pains, not confined to cases of tedious labour, but in very short ones with powerful and very rapid pains. He says, "I knew a young lady after rather a lengthy labour attended with extreme suffering, suddenly cease complaining, assume a smiling expression, and, after a few incoherent expressions, sing in full voice the grand air in 'Lucia di Lammermoor.'" This temporary insanity accounts, in the view of some medico-legal jurists, for certain cases of infanticide. Rigby mentions the case of a mother who after a short and painful labour expressed an unconquerable aversion to her child, which contrasted strangely with the tender and affectionate remarks she had uttered but a few moments previously. The aberrations last but a short time, and are not significant of great danger, but sometimes the shock to the system is so great that death takes place suddenly. The fatal effect of the process of parturition upon the nervous system of the mother, after as well as during labour, cannot be mistaken. This shock, which is the effect of the extraordinary agitation produced by parturition, is altogether similar to that occasioned by extensive wounds which sometimes destroy an unfortunate workman who has had a member crushed by a machine; or to that produced by an extensive burn. The sudden death which neither the circumstances of the accident nor the lesions discovered at the autopsy are capable of explaining is attributed by the Surgeons to nervous shock. Cazeaux says—"If the agitation, spasm, and delirium of which we have spoken appears during labour, blood should be taken immediately from the arm, provided the general condition of the patient admit of it, and the delivery accomplished as soon as possible."

The positions of the child at the time of delivery are described by Cazeaux and the French authors differently from ours. He makes three divisions—(1) the cephalic extremity, including presentations of the vertex and face; (2) the pelvic extremity, with presentations of the breech, foot, and knee; and lastly (3) the trunk, which is divided into two lateral halves—hence there are two trunk presentations, a right lateral plane and a left lateral plane. These mean a right and left shoulder position. These leading divisions are subdivided so as to make almost as many positions as there are parts of the child to present. With regard to shoulder positions, M. Cazeaux alludes to spontaneous version or evolution. Dr. Denman's view of this process had been denied by Dr. Douglas, and much dif-

ference of opinion arose in the Profession, the majority agreeing with Douglas, and doubting greatly the possibility of Denman's explanation. Velpeau, however, determined to judge for himself, and took the opportunity of a case which he faithfully describes. "A young woman, pregnant for the second time, came into the Hospital at 10 o'clock in the morning. The os uteri was very little dilated; nevertheless I could recognise a second position of the left shoulder. The waters did not escape until 3 in the afternoon, and I did not wish to go after the feet as pains were neither very strong or very frequent. And I had some confidence in the assertion of Denman on the subject. At 8 in the evening the shoulder had sensibly moved towards the left iliac fossa, and I could then readily detect the ear to the right. At 11 the temple had almost gained the centre of the orifice, the contractions were augmented in energy, and the cervix was entirely effaced. At midnight the vertex had become lower, the head engaged, and in the course of an hour the vertex was delivered in the right occipito-cotyloid position." This experiment of Velpeau has proved the accuracy of Denman's account of what he called "spontaneous evolution," which has since been strenuously denied. With regard to hæmorrhage, Cazeaux alludes to Sir James Simpson's practice of separating the placenta in placenta previa. He objects to the practice of forcing the hand into the womb to turn when the neck is resisting. He thinks it prudent not to risk the injuries of the neck, which result from a forcible introduction of the hand; but if, after a few moderate efforts, the rigidity is not overcome, we should much prefer, if the case were urgent, to resort to Simpson's method to detach and extract the placenta. However, he doubts the prudence of following Simpson's practice, for he thinks that when the flooding continues after the evacuation of the waters and when the neck does not allow the hand to be introduced, there is some chance of saving both mother and child by applying the tampon, being careful at the same time to compress the abdomen in order to prevent the occurrence of internal hæmorrhage.

In difficult labours arising from deformities of the pelvis he states the practice in different degrees of disproportion, and concludes by asking when the dimensions of the pelvis are under two and a half inches, What is to be done? When the breaking up of the head and mutilations of the fœtus enable us to extract it, craniotomy must be performed. "But when the diameter is barely over an inch (the French inch is longer than the English) we can no longer think of extracting the child by the natural passages, and the Cæsarian operation is then alone admissible. It is very important to know that with less than two inches cephalotripsy (craniotomy) becomes very difficult, because then the extraction of the base of the cranium, after perforation of its vault and the evacuation of its cavity requires such numberless gropings and violent efforts, such repeated and grievous pressures and distentions, that the chances of the mother's safety are very small, and these painful attempts, which are sometimes made without any benefit, are not more favourable than those which follow the Cæsarian operation. Under these circumstances, M. Pajot proposes crushing simply without traction." This, with traction, constitutes cephalotripsy as practised by the younger Baudeloque and others. The Cæsarian operation is more boldly adopted in France than here. Cazeaux says, "Supposing the smallest diameter (antero-posterior) measures two and an eighth inches, and it had been positively determined that the child is still alive, two different measures are presented for our serious consideration, embryotomy and the Cæsarian operation. All the French accoucheurs, including Du Bois himself, are in favour of the latter, for he says, 'the Cæsarian operation is our only resource, and therefore it is much resorted to.'"

We have endeavoured to bring forward those features of M. Cazeaux's work which might interest the English reader. It is remarkable for the order of its arrangement and the number of subjects which are discussed. It concludes, for instance, with a chapter on the nursing of children, their management during this time and the difficulties and accidents of maternal nursing. The work is illustrated with numerous plates, some of which are valuable as showing many of the new instruments invented by French Practitioners.

Sir James Clark, Bart.—The will of this gentleman, so long the First Physician in Ordinary to her Majesty, has just been proved by his son, and the personalty sworn under £25,000, the whole of which he has left to his son absolutely.

NEW BOOKS, WITH SHORT CRITIQUES.

Notes of a Course of Nine Lectures on Light delivered at the Royal Institution of Great Britain, April 8—June 3, 1869. By John Tyndall, LL.D., F.R.S. Pp. 74.

Notes of a Course of Seven Lectures on Electrical Phenomena and Theories delivered at the Royal Institution of Great Britain, April 28—June 9, 1870. By John Tyndall, LL.D., F.R.S. London: Longmans. Pp. 40.

*** We most cordially commend these notes to students of physical science. Like his great master, Faraday, Tyndall delights rather in demonstrating the truths he teaches than in evolving them in a numerical form. Many readers are deterred from the study of these modes of force chiefly because they have to encounter the difficulties of mathematical formulæ more or less unintelligible at every step, and however useful these last may be to those who specially devote their attention to such subjects, they cannot impress the minds of the rank and file of humanity as seeing and hearing can. These notes have the further merit of dealing with their subjects in exact accordance with the most recent theories of force. Everywhere light is looked upon as a mode of motion, and the laws of its waves, even the length of its waves, the relation of these waves to colours, are all exactly defined. The notes on electricity are rather shorter than are the others, and of necessity are more theoretical, but their value is equally great.

Journal of Anthropology, No. 1, July, 1870. Edited by John Beddoe, B.A., M.D., J. Barnard Davis, M.D., F.R.S., H. Beigel, M.D. M.R.C.P., the Rev. Dunbar Heath, M.A., and C. Staniland Wake, F.A.S.L. London: Longmans.

*** This journal is intended to fulfil a twofold object—to encourage the study of anthropology, and to publish the transactions of the Anthropological Society of London. The present number contains much interesting matter, particularly an account of the tribes of the Neilgherrie hills, and a paper by Drs. Davis and Kopernicky on that curious Russian sect the Skoptsis.

The Treatment of Croup. By Fordyce Barker, M.D., Clinical Professor of Midwifery and Diseases of Women and Children, Bellevue Hospital, New York, &c. Extracted from the *American Journal of Obstetrics*. New York: Townsend and Adams.

*** This paper is of the utmost importance whether we consider the eminence of the author who is as justly esteemed here as he is at home on the subject on which he treats. His experience both public and private is exceedingly large, and the weight of his authority correspondingly great. For twenty years he has never lost a child by croup. His great maxim is to begin as early as possible with an emetic of the old turpeth mineral (yellow sulphate of mercury), dose from 2 to 5 grains, to be repeated if necessary. If the child's pulse does not fall speedily he next gives tincture of veratrum viride 1 or 2 drop doses every two hours. If the chest becomes implicated he adds some carbonate of ammonia and tolu, and sometimes if the child is weak considerable doses of quinine are alternated with the other. His success we have already referred to. We commend our readers to try the plan.

Annuaire du Cosmos, 12e *Année*. Par Seguin, aîné. 1870. Paris: Germer Baillière. London: Williams and Norgate.

*** This little volume, published at the very low price of 1 fr. 50 c., or less than eighteenpence, contains a vast amount of information. It begins with a very complete almanac, in which we can see at a glance not only the ordinary facts of each day (as its length, etc.), but the moon's age, the length of the day, the corresponding day in the Russian year (the old style), the mean temperature and atmospheric pressure, the rising and setting of the sun and moon, etc. Details regarding the Academy of Sciences, and all the other French scientific associations (fifty-three in all), then follow, and these are succeeded by thirty-five pages devoted to the weights and measures and the currency of different countries, from which we can learn the values of the oke, cheky, killow, etc., in Turkey, and those of the catty, tael, candareen, etc., in China. Fifty pages of sound hygienic hints for each month, and of advice as to what should be done in case of accidents or sudden illness, before the arrival of the Physician and Surgeon, by Dr. Foissac, next claim our attention, and these are supplemented by population and mortality tables, by the same writer. We have now arrived at the middle of the volume. The latter half contains, *inter alia*, copious tables on various physical subjects, an

elementary sketch of physical astronomy, and a most valuable summary of the progress of science for the preceding year, based upon, and being an analysis of, the *Comptes Rendus* of the French Academy.

Letts's War Map of Central Europe.

*** We have received an excellent, very full, and very clear map of the seat of war and the surrounding countries from Messrs. Letts. The map includes the whole of France, the Netherlands, North and South Germany, Switzerland, part of Poland, Austria, and Hungary. It is coloured, well backed with linen, bound in a neat case, and can be easily carried in the pocket. A packet of gummed dots—blue for France, and red for Prussia—is supplied with it, by which the progress of the armies may be marked from day to day. It is certainly the best portable map of Central Europe we have seen.

GENERAL CORRESPONDENCE.

THE SICK AND WOUNDED IN TIME OF WAR.

LETTER FROM PROFESSOR LONGMORE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have received so many letters—more than I can fully reply to—from Medical gentlemen as well as others, making inquiries on the subject of volunteer aid to the sick and wounded of the hostile armies on the continent, in consequence of my name and address having been mentioned by Colonel Loyd Lindsay, V.C., in a recent letter to the *Times* on the subject, that I shall feel obliged if you will make the following information known through your columns. A full account of the constitution and regulations of the "Help Societies" existing in the various countries of Europe may be found in a little book entitled "Help to Sick and Wounded," recently published by Messrs. Hotten, Picadilly. A provisional committee for forming a central national society for help to sick and wounded in time of war, in connexion with the other national societies of Europe, has just been constituted in London, Lord Eliot, Captain Burgess, and Mr. Furley acting as secretaries. The present address of this committee is 8, St. Martin's-place, Trafalgar-square, London. I am, &c.

Netley, July 27. THOMAS LONGMORE.

DEATH FROM CHLOROFORM.

LETTER FROM DR. GEORGE JOHNSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Richardson in his interesting lecture on death from chloroform, referring to the post-mortem appearances in cases of what he designates epileptiform syncope, states that the lungs are blanched and bloodless, the left side of the heart and the systemic arteries empty; while the right side of the heart, and the whole systemic venous system are distended. Dr. Richardson explains the appearances thus:—"All through the body there is evidence on the arterial side of the circulation of intense arterial contraction; . . . . the arteries have poured their contents into the veins, and contracting firmly in their minute ramifications have shut up the blood in the veins, and produced complete arrest of motion throughout the circulation."

I find a difficulty in accepting this explanation of the facts. It must be borne in mind that the contraction of the minute muscular arteries has a stop-cock, and not a force-pump action, an obstructive and not a propulsive influence upon the circulation. Contraction of the minute ramifications of the systemic arteries would retain the blood in the arterial trunks, and not drive it on into the veins; and, again, driving the blood into the veins would not arrest the circulation if the blood were free to move through the lungs. The condition of the heart, lungs, and bloodvessels, which occurs in animals rapidly killed by chloroform, and which is also found in cases of acute apnœa, and of cholera collapse, appears to me to admit of only one explanation. Contraction of the minute pulmonary arteries arrests the blood before it reaches the capillaries. The closure of the arterial stop-cocks in the lungs tends to empty the vessels in front, and to distend those which are behind the seat of obstruction; hence, anæmia of the lungs, and emptiness of the left side of the heart, and the systemic arteries; while the trunks of the pulmonary artery, the right cavities of the heart, and the systemic veins, are distended.

Savile-row, July 25. I am, &c. GEORGE JOHNSON.

CONVULSIONS AFTER LABOUR—TREATMENT BY FREE BLEEDING.

LETTER FROM DR. WM. MARTEN COOKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—With others recently narrated, the following case will show that under urgent circumstances very large bleedings may still be safely used. In the autumn of 1867, I was asked to attend a strong, healthy, lively young woman, two years married, in her first confinement. On my declining because of the distance of her residence, she arranged to come for the time to her sister's house, nearer to me. Labour came on unexpectedly, and she got into a cab and rode alone from the further end of Bermondsey to Stepney, arriving there near midnight in a state of great excitement and bewilderment. I was immediately sent for, but before I got there a living child had been born, without Medical aid, and with almost no loss of blood. The patient was then quite rational, but had a dull, heavy look, which I attributed to the fatigue and excitement of her long night ride.

I could not call next day till 2 p.m., about twelve hours after delivery, when, to my surprise, I found her quite apoplectic and strongly convulsed—I feared moribund. She was utterly insensible; the eyes were suffused, the corneæ opaque, the pupils closely contracted, the face livid and distorted, the lips swollen, the teeth firmly closed on the tongue; frothy saliva was flowing from the mouth, and the breathing was slow and stertorous; the arms were rigidly flexed, the hands clenched, the pulse slow and hard, and the veins standing out like cords.

I found that she had remained dull and listless ever since the labour, but that convulsions had only shown themselves two hours before, when a Medical man opposite had been sent for, who, as their character had not then fully developed themselves, and as I was immediately expected, ordered cold applications, sinapisms, etc. On coming over by my request, when I called, he fully recognised the urgency of the case, and supported my conviction that it was imperative to bleed freely. Blood flowed with extraordinary rapidity and force from a large orifice, and the progressive mitigation of the symptoms, as it flowed, was very striking. The stertor ceased, the face became more natural in colour and expression, and the muscular tension abated. I resolved to keep the vein open as long as blood flowed in a stream, which it did till the wash-hand-basin was nearly half full. We then bound up the arm, as we thought securely, but in a few minutes a very powerful convulsion came on, attended with slight screaming, and much violent action of limbs, during which the bandages slipped, and the blood flowed again. Compressing the vein with my thumb, I let it flow till it stopped, when we again tied up the arm, securing the tapes by a bandage from wrist to shoulder. At this time all convulsion had ceased; she turned on her side, with her hand under her head, her usual position in sleep. The corneæ became clear, though the pupils were still contracted. The breathing was easy, and though she gave no sign of voluntary consciousness, she was alive to the annoyance caused by ice which had been applied to the head.

For the subsequent treatment of the case I am indebted to the gentleman who had been called in to assist, to whom, because of the distance from me, I asked the friends to transfer the patient. I regret that I have forgotten his name, but he treated the patient very skilfully on the principle of doing as little as possible. Finding, for instance, that the cold applications produced continual restlessness, he ordered their discontinuance, and the only medicines given during recovery were a few aperient draughts. The recovery was steady. She made no attempt to speak till the following morning, having remained almost motionless during the night. For some days she could do little more than speak in monosyllables, any movement or exertion bringing on what she called flashes of heat and light. On the third day it was found that the water was retained, and the catheter had to be used, but on the seventeenth day she was about as usual. There was a copious and healthy secretion of milk, and she suckled the child for several months.

I am indebted to the gentleman who took charge of the case for a careful measurement of the blood, which he found to amount to 54 fluid oz., about forty of which must have passed in the first stream. The whole bleeding, however, occupied hardly more than ten minutes. It formed a large firm leathery coagulum, neither cupped nor buffed, the serum being small in quantity and very viscid.

About nine months after this, the patient had a severe epileptic fit, evidently from over-lactation; and she has had two or three slighter ones since; but she has passed comfort-

ably and safely through a second pregnancy; and though I have not seen her for some time, I have reason to believe that she is now in good health.

Whatever his theoretical views, I feel sure that no one could have seen this case without feeling that the speedy unloading of the vessels was the only possible remedy. It may be doubtful whether, after the convulsion had lost its rigid character and become violent and hysterical, it was needful to continue the bleeding. But it is remarkable that after this second bleeding all spasmodic action ceased at once and utterly. I sat by the bedside for nearly an hour, and though the coma was profound, there was no convulsive action even in the face. The case is the more interesting from the fact that no other remedy was used; we did, indeed, put a few grains of calomel on the tongue, but I do not think that it was swallowed, and the aperient draught was only just what is usually given after labour. I had suggested the use of counter-irritants and cold, but my colleague, observing that they prevented her getting rest, wisely abandoned them, with the very sound plea that we had "surely done enough and might trust the rest to nature."

I was led to resolve here to bleed till full effect had been produced, by a case which occurred to me when an assistant in the country, where a larger amount was lost, as I believe, by my fearing to take enough at once. I was sent for late on a summer's night to see a strong but spare woman, nearly 50 years old, but daily expecting confinement, who had been at work all day in the fields under a burning sun. She was suffering from intense pain over the region of the liver, which made breathing all but impossible. She was so sure that nothing but bleeding would relieve her, that she had prepared everything, and waited my coming with great anxiety. I bled her, but becoming alarmed after, as I guessed, 30 oz. had flowed, I bound up the arm much against her wish. Three hours after I was called up again, and found the patient trying to open the vein again for herself, pain having returned; a thrombus prevented this, and I bled in the other arm till about 20 oz. had flowed, when slight syncope took place and I again tied up the arm. In the morning she begged for a third bleeding, urging me to continue it till she went "right off," which I did, with a loss of certainly 16 or 17 oz. more. In the afternoon, labour came on, and was attended with very copious hæmorrhage. The patient made a capital recovery, and in a few days was at work again.

I am, &c.

Wm. Marten Cooke.

39, Trinity-square, E.C., July 15.

THE ABOO LAWRENCE SCHOOL.

Letter from Mr. W. J. Moore.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some days back I forwarded to you a report of the Aboo Lawrence School, and I now venture to request a small space, in order that I may give some account of the necessities of this most useful institution.

The Aboo School was founded by the late Sir Henry Lawrence, who also originated similar establishments at Sunawur in the Himalayas, and at Ootocamund in the Neilgherries. Seeing how frightful was the mortality of European children on the plains of India, the good and great man just named determined on founding a refuge for these little ones in each of the Indian presidencies, and, on his death, bequeathed the care of the infants' asylums in these word—"The Lawrence Asylum, the Aboo Lawrence School, and the projected Asylum at Ootocamund, I especially recommend to the fostering care of the East India Government, which I have conscientiously served for more than five-and-thirty years." And it must be confessed that Government have liberally accepted and maintained the burden thus left by one of the greatest of Indian officials. The Sunawur Asylum and the Ootocamund School have now become, to all intents and purposes, Government institutions, and, for some years past, the greater portion of the cost of the Aboo Lawrence School has been also defrayed by Government. But the Asylum, originally intended for soldiers' children, has gradually admitted the children of other classes as year by year the progress of events brought a larger number of Europeans into this part of the country. Now, whatever claim the children of soldiers serving in India may have on the State, such claim cannot be legitimately preferred generally; it therefore follows that Government cannot be rightly called upon for the full support of the Aboo Lawrence School; moreover, a central asylum for soldiers' children in the Deccan is now contemplated, and Government support to two institutions is scarcely practicable nor desirable. But the want of such a school in Rajpootana is undoubted. At the present time 90 per cent. of the children are from what may be designated local sources—*id est*, from stations inhabited by Europeans in Rajpootana. And this local want must increase. Progress in India is simply another term for the influx of Europeans; of a class who cannot afford to send their children home for education, or even to a hill station, if the whole expense fell upon the parents. But in the Aboo Lawrence School, while a small sum is demanded from each child's father (orphans are free), the bulk of the expenditure is found by the School, hitherto supported by voluntary donations, supplemented by Government aid. The continuance of the latter on the same scale as formerly being now uncertain, the committee of the School have determined on appealing to the public for the means of protecting from disease and death at least the fifty children, the number for which the School was originally intended.

Some years ago, in my work "Health in the Tropics," I mentioned, on the highest available authority, the mortality of children (European) in India, up to fifteen years of age, as being for the Madras Presidency 39·8 per 1000, in Bombay 70·7, in Bengal 84·2 per 1000 annually, giving a mean for the whole of India of 64·32 per 1000, the English death-rate between the same ages in twenty-four large towns being 22·36. And there is evidence that, during more recent years, there has been no diminution of death ratio amongst this class. In 1865 the mortality in Bengal was 83 per 1000, in 1866 it was 75 per 1000, in 1867 104 per 1000, in 1868 86·70 per 1000. While the mortality of soldiers has been reduced, chiefly by a much larger proportion of invaliding and by sanitary precautions, the death ratio of children has little altered, showing, perhaps, the positive antagonism of the climate of the Indian plains to the European constitution. For, as Mr. Simon so correctly observed, "it cannot be too distinctly recognised that a high local mortality of children must always denote a high prevalence of those causes which determine a degeneration of race."

Now, instead of the excessive mortality noted above, the death ratio of the children on the Aboo-hill has been, for the last eleven years, 1·04 per 1000. Therefore, without counting the advantages to be derived from education as afforded by the School, the saving of life would appear to be alone a sufficient recommendation. It is, indeed, simply the difference of disease and death on the plains, health and robust maturity on the hills.

I do not write under the hope of obtaining subscriptions from the general readers of the *Medical Times and Gazette*. I am sufficiently acquainted with Medicine as a Profession to know that the majority of her servitors have local calls, exceeding even the Aboo Lawrence School in importance. But some among us may have it in their power to further the interests of the School by a word in season on opportunity occurring, and to such I commend the claims of the institution.

As a guarantee that the School is under undeniable supervision, and that its internal economy is carefully watched over, I may add that it is conducted by a committee, composed of military and civil officers resident in the locality, the president being Colonel Keatinge, V.C., C.S.I., the agent to the Governor-General for the States of Rajpootana.

I am, &c.

W. J. Moore, L.R.C.P.,

Surgeon Rajpootana Political Agency, and Superintendent-General of Dispensaries for Rajpootana; Honorary Secretary Aboo Lawrence School.

June, 1870.

NEW INVENTIONS.

NEWNHAM'S CONDENSED MILK.

Mallow, Co. Cork, Ireland.

This condensed milk claims public attention on the ground that it is excellent in itself, and carefully treated by condensation. It is sold in half-pint tins, each containing a quantity equal to eight or ten times the bulk of ordinary milk. When opened it is seen to be a thick paste, of the consistence of honey, of a slight yellow colour, and intensely sweet taste, with something of grittiness, arising from the crystallisation of the sugar of milk. In this state it is good to put into tea or coffee, and to eat with fruit, etc. Diluted with from six to ten times its bulk of hot water, it forms a liquid, having the appearance of milk, both to the naked eye and with the microscope, and tasting like milk intensely sweetened, the addition of sugar being apparently the mode adopted of preserving it. Persons who have the charge of young children, travellers, and others in want of milk, may resort to this with confidence.

Although we have kept a tin open for a week, there is not the smallest sign of acidity or decay.

THE ECLECTIC INHALER.

This is an inhaler manufactured by Maw, Son, and Thompson, for Messrs. Bullock and Reynolds, under the direction of Dr. Morell Mackenzie, who, although he very properly objects to giving his own name to his invention, is really its originator. Dr. Mackenzie has favoured us with a description of this instrument, from which we extract the following:—"A good inhaler should possess the following properties:—1. It should be capable of containing a sufficient quantity of water, and also space for holding a sufficient quantity of steam. 2. It should provide for the perfect medication of the vapour inhaled, by necessitating the passage of air through the liquid; or, in other words, it should allow the patient to inhale, not merely the medicated steam ascending from the hot liquid, but air which has passed through the liquid and become saturated with the volatile matter. This has been called the hookah or bubble-bubble principle, and has been imperfectly provided for in many inhalers. 3. It should require very little effort on the part of the patient. 4. It should be capable of being kept at a uniform, or nearly uniform, temperature. 5. It should be capable of being easily cleaned. 6. It should be capable of being used in either a sitting or recumbent position. That the Eclectic Inhaler fulfils all these conditions will be now shown. *a*. It holds a pint of hot water, and has a large air chamber above. *b*. The perfect medication of the vapour is ensured by allowing air to pass through the medicated liquid on inspiration. *c*. Absence of effort is secured by providing for the ample supply of air through the very numerous ingress holes (*x* and *z*), and for an easy passage of air through a large inhaling-tube and mouth-piece; and by being constructed in such a manner that the lower ingress holes are only covered by about half an inch of the medicated liquids. *d*. The temperature is maintained by a Clark's night-light, and regulated by a thermometer. *e*. Cleanliness is provided for by the construction of the apparatus. *f*. The use of the inhaler in any position is secured by the elastic inhaling-tube, as in Curtis's."

The inhaler consists of three parts—*a*, *b*, and *c*. *a* is an open vase, and is essentially the containing vessel, into which the hot water and medicated solution are put. It is shown in Fig. 1, with a pint of water in it, and above the water line is a large space for the steam. *b* is a kind of lid, resembling an inverted tumbler. It is shown in Fig. 1, forming the lid of the containing vase, and in Fig. 2, with the sides of the vase drawn diagrammatically. The bottom of the tumbler forms the covering of the vase, and the sides of the tumbler dip down into it, leaving an air chamber between the two parts. When the vase has its proper quantity of water, the sides of the inverted tumbler or lid dip down only about half an inch below the water line. The circumference of the lid is perforated with small holes, as seen at *x*, and the circumference of what would be the rim of the tumbler is perforated in the same way at *z*. The apertures, both above and below, communicate with the air chamber. When the patient inhales, air rushes through the various holes above at *x*, then through the air chamber, again through the series of holes at *z*, and finally up to the mouth piece, as shown by the course of the arrows. In the centre of the upper surface of the lid is a projecting nozzle, to which is attached a flexible tube, provided at its extremity with a double-valve earthenware mouthpiece. There is an opening in the lid through which a thermometer registering high temperatures passes into the water. *c* is a stand on which the vase rests, and is made hollow, so as to hold a night-light.

Fig 1

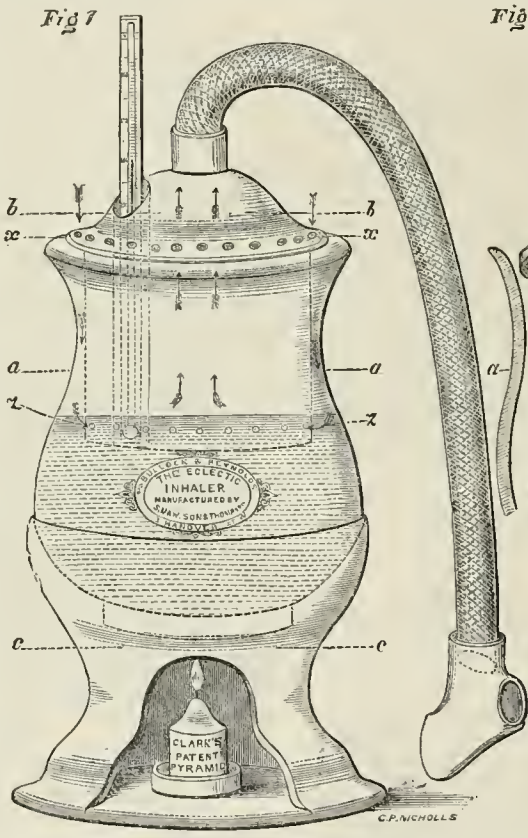
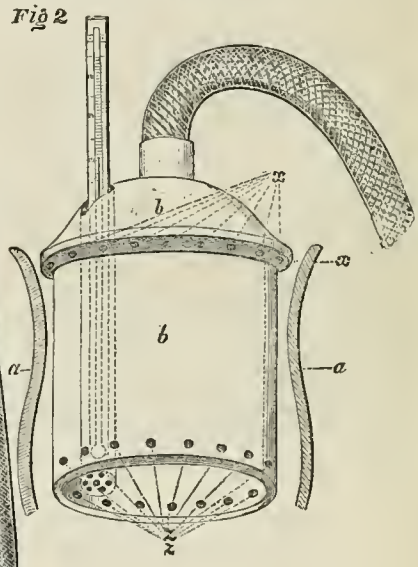


Fig 2



REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 24, 1870.

Dr. Pitman, Vice-President, in the chair.

Dr. Wm. Stokes read a paper on

SUPRA-CONDYLOID AMPUTATION OF THE THIGH.

The author commenced by referring to the importance of the operating Surgeon determining whether the amputation at the knee-joint or of the thigh is the least hazardous to the patient, and also which of these operations affords the best stump for the subsequent adaptation of an artificial limb. After alluding to the opinions of Hoin, Velpeau, Syme, Malgaigne, and others, as to amputation at the knee being less hazardous to the patient than amputation of the thigh, he went on to describe a method of amputating at the knee, which was based on Gritti's modification of Carden's amputation at the knee. After discussing the objections which have been urged against amputations at the knee by Surgical mechanists, and the way of obviating them, the author proceeded to point out the differences between the proceedure which he proposed to term the "supra-condyloid amputation of the thigh" and the Italian modification of Carden's amputation. These differences are:—1st. That the femoral section is made, in all cases, fully half an inch above the antero-superior edge of the condyloid articular cartilage. 2nd. That in all cases the cartilaginous surface of the patella must be removed. 3rd. That the flap should be oval not rectangular. 4th. That there should be a posterior flap fully one-third of the length of the anterior flap. Having given the particulars of the cases in which he had performed

this operation, and discussed its details, the author proceeded to indicate what he believed to be the advantages of the supra-condyloid amputation over the amputations through the knee —viz., those of Velpeau, Blenkins, Lane, and Markoe; the amputations through the condyles; and, lastly, the higher amputations of the thigh, in which the medullary canal is necessarily involved. These advantages, many of which are in common with the other amputations through and near the knee, may be enumerated as follows:—1. The stump being more useful for progression. 2. Possibility of making pressure on the face of the stump. 3. The patient not being obliged to walk as if he had anchylosis of the hip-joint. 4. The operation being less hazardous than amputation of the thigh, from being further removed from the trunk. 5. The shock is less than after the higher amputations of the thigh. 6. The muscular interspaces unopened. 7. Less chance of protracted suppuration, from the anterior flap consisting for the most part of skin and fasciæ. 8. Less chance of purulent absorption, from the posterior surface of the anterior flap being covered with synovial membrane. 9. Probable advantages derived from having the cut surface of the femur covered by the patella. 10. Advantages derived from preserving the attachments of the extensors of the thigh. 11. Impossibility of a conical stump resulting. 12. No liability to the formation of tubular sequestra. 13. Less chance of phlebitis, from the vessels being all divided at right angles to their continuity—not obliquely, as an all other flap amputations, which necessitates the wounds in the vessels being so much greater in extent. The author concluded by claiming for the amputation of the thigh which he proposed to call the supra-condyloid amputation of the thigh, the advantages of both the circular and flap amputations, and the defects of neither.

Mr. Holmes presumed that these opportunities were rare; he had only seen one case, and was not aware of any others in London. In his instance Gritti's operation had been done. That was many months ago, and there is now a capital stump; but convalescence had been very protracted, as must always be the case when a synovial membrane, such as that of the knee-joint, was affected. Suppuration might then extend up the thigh. Two operations had been mixed up together; in the one the condyles were cut through, and all the knee structures removed. The benefit was here questionable, except that the cut was lower than in the ordinary operation. They did not thereby retain the attachment of the extensors. The other was much better; but they could only retain the patella when the joint was sound. Gritti's operation was applicable to most cases for which amputation was employed for disease at the knee-joint. The articular surface of the patella could be easily removed by an instrument invented by Mr. Pollock.

Dr. Bakewell had a case in the West Indies which did very well. He did not remove the articular surface of the patella. The case was complicated with anæsthetic leprosy.

Mr. Lawson Tait said that this operation was seldom performed by Mr. Syme. He removed the patella, and this was often advantageous, as in the analogous case of Pirogoff's operation. Fit cases were also rare; the synovial membrane might prove troublesome, and the operation might also lead to pyæmia. He asked what were the results of Lister's mode of treating open sores.

Mr. Willett said a man came to St. Bartholomew's Hospital to have his stump reamputated. On macerating the portion which was removed, the patella was found to be anchylosed to the cut surface, and had given rise to the mischief.

Mr. Holmes said it was quite a mistake to suppose that carbolic acid was essential to Lister's mode of treatment. Something only was required to destroy germs, and many other things might do the same. Much of the success depended on the care taken.

A paper by Dr. R. L. Bowles was communicated by Mr. Cæsar Hawkins on

FURTHER OBSERVATIONS ON STERTOR, ITS PATHOLOGY AND TREATMENT.

The definitions of the three forms of stertor (palatine, pharyngeal, and mucous stertor) treated of in vol xlviii. of the Medico-Chirurgical *Transactions* are referred to, as well as a "laryngeal stertor" in chloroform poisoning spoken of by Professor Lister. Case 1 illustrates the cessation of stertor on placing the patient on her side, a gradual improvement subsequent to this, the return of stertor and impending death when she was placed on the opposite side, the instant relief on assuming her original position, and a return to consciousness coincident with the cessation of stertor. The causes of these conditions are discussed, and cases are given illustrating the necessity of always placing the paralysed side downwards, and of never changing it to the opposite side; for the lung of the paralysed side becomes loaded with a mucous fluid, which gravitates to the opposite lung whenever the patient is placed with the opposite (*i.e.*, sound) side downwards, and in its passage across the trachea the mucus become churned up into foam by the ingoing air, causing mucous stertor, great dyspnœa, and, if not removed, death. It is shown by experiment that these conditions may be induced and removed at will in apoplectic cases, and the practical applications of these principles are pointed out. Cases are related demonstrating the successful application of these principles in respect of the removal of stertor, as well as some cases of recovery from apoplexy after the stertor has been removed. Their application also to bronchitis, convulsions, epilepsy, hæmoptysis, drowning, chloroform poisoning, and all allied conditions, is pointed out, and the following conclusions are deduced:—1st. That a "laryngeal stertor" may be added to the three forms formerly defined. 2nd. That the three forms of stertor which have the most important connexion with the apoplectic state are the palatine, pharyngeal, and mucous stertor. 3rd. That the three varieties, whatever their remote causes, are the immediate results of a local mechanical condition, which may always and at once be changed, to the great relief of the patients, and sometimes their permanent recovery. 4th. That it is necessary to keep the patient on one side, and that the paralysed side should be downwards. 5th. That mucus and other fluids gravitate into and fill up the lower lung, and therefore if the sides be reversed the mucous will find its way into the opposite lung. 6th. That the fluid crossing from the large bronchi of one lung to that of the other becomes churned into foam, and causes dangerous obstruction to the respiration. 7th. That the lung is not injured by remaining inactive, and filled with mucus for a long period. 8th. That these principles apply to all conditions in which mucus or fluid exists in either or both lungs, and also to all conditions allied to the apoplectic, whether there be fluid or not.

Dr. Weber thought the term "stertor" was generally applied to one particular condition. He had in three instances convinced himself of the value of the method. It relieved both the patient and the bystanders. In the instance of an epileptic who was comatose and breathing stertorously, he was laid on his side, the stertor ceased in a few minutes, and consciousness by and by returned. It had also been successful in a case of habitual snoring.

Dr. Broadbent thought the suggestion valuable. The cause of stertor had long been known. The plan had been valuable in restoring from the effects of chloroform. He did not think that apoplexy affected the opposite lung, but both sides alike.

Dr. Powell thought there was a marked difference in the movements of the two sides in apoplexy, and position would affect these.

Dr. Leared thought that artificial respiration did good in such cases.

OBSTETRICAL SOCIETY OF LONDON.

THURSDAY, MAY 5.

Dr. Braxton Hicks, Treasurer, in the Chair.

Dr. Heywood Smith shewed a specimen of blighted twin ovum.

Dr. W. S. Playfair shewed a malformed heart from a cyanotic child that had lived to the age of nine months. In this there were two auricles, but practically only one ventricle, the left ventricle being almost rudimentary. Both the aorta and pulmonary arteries took their origin from the right ventricle.

Dr. Wynn Williams read a paper on a case of Persistent Sickness in which labour was induced after the full period had elapsed.

Dr. Brunton read a paper on two cases of twins, in which, while the first child presented naturally, there was placental presentation with the second.

Mr. Squire read a paper On Temperature Deviations in the Diseases of Children. These observations were presented to the society much in the order pursued in the inquiry. The first object was to gain by them a more definite idea of the natural history of the states of disease to which children are most liable. Next, to show their value in diagnosis, especially as an aid to the early detection of the infectious diseases: and lastly, their bearing on questions of therapeutics and hygiene. Some

of the infectious diseases have a long incubation period, and the temperature falls on the throwing out of the rash, or on the local manifestation; this is seen in measles and in mumps. Others have a short incubative period, the temperature afterwards not having the same readiness to fall as in scarlet fever, where, though the skin is the first tissue to be affected, it is by no means the last. Temperature changes accompanied a definite pre-eruptive period in measles and mumps. The incubative period and the course of the disease, and of chicken-pox and rubeola, were traced; a variety of the latter with scarlet fever-like rash was clearly distinguishable from scarlet fever by a fall of temperature attending the rash. Influenza and hooping-cough were classed with scarlet fever, and numerous temperature observations of the whole course of these diseases illustrated their analogies. Influenza, like scarlet fever, is suddenly febrile, but the pyrexia has a tendency to subsidence on the third day. When it goes on to bronchio-pneumonia it is somewhat longer, and then there is a sudden fall of temperature when secretion begins. Its passage into diarrhœa, gastric catarrh, quinsy, or herpetic or ulcerated sore throat was noticed, and three instances in different families given where adults had the latter affection while children suffered from influenza. Hooping-cough is shown to have a preliminary pyrexial period of from five to seven days, most marked in the most insidious cases. This also is true of diphtheria, and forms one of its chief distinctions from scarlet fever. There is a close correspondence between some of the observations in hooping-cough to those made in influenza and croup; but these two diseases, essentially identical, differ from it at first in being suddenly febrile, as well as in the after consequences. In diagnosis, the distinction between typhoid fever and meningitis was illustrated by cases in infants. It is seldom that a single temperature observation could or should be made the basis of a diagnosis; it is not to show *what* a disease is, but *how* it affects the patient that the temperatures are taken. Elevation of temperature is indicative of disease of some kind, but the absence of disease cannot be affirmed because the temperature is unaffected. During the rapid growth of childhood sudden rises of temperature occur which do not show danger but only necessity for care, after these disturbances, not always subsiding at once if there is bad air, bad food, or bad health. Sometimes pulmonary or glandular congestions or deposits occur, and are found with a low temperature. The more sudden high temperatures of rapid growth have often been associated with gastric rather than pulmonary congestion. In therapeutics a novel form of empiricism is to seek remedies to reduce temperature; the subsiding of temperature under certain forms of treatment is perhaps a good proof of the efficacy of treatment in the particular form of disease present. In this way the efficacy of cold to the surface in typhoid, and of quinine in the first week of scarlet fever is evident. Quinine has at once checked the pyrexia in the early stage of hooping-cough, and has had no effect in its later stages, where, a combination of atropine and morphia ($\frac{1}{60}$th of a grain of each), has been useful in one case; where at a still later period a temperature of 103° persisted, the use of a solution of chloride of ammonium in the form of a spray and fresh air reduced this high temperature to 99° in two days. Chloral, though often useful in hooping-cough, and of some benefit here, did not reduce temperature as, by giving sleep, it generally does. While temperature is high sleep is impossible, and much of the nocturnal delirium and wakefulness of children in some illnesses is owing to this, especially in the first effects of a zymotic poison; this is when quinine is so useful. On the other hand, a marked increase of temperature results when the eliminating system is followed too closely. Dilute the poison by all means, by pure air especially. Remove what you can, but to eliminate a poison, if that were possible, instead of eliminating the fluids of the body, the quantity of poison eliminated can only be in proportion to the diseased action present, so that to increase the one you increase the other. Though children in health have a lower temperature at night than in the day, yet when the depression is great some hygienic defects are inferable. Where the author found as low a temperature as 97° in the night he also found a low range in the day, and a special connexion between this and a dislike to or deprivation of fatty food. In a collection of facts every conjecture is an error, yet it is possible that a low or easily depressed temperature proves a useful guide in correcting the diet tables of workhouses and schools.

Dr. Woodman asked Mr. Squire how long he allowed the thermometer to remain in the axilla or rectum. His reason for asking this was that the temperatures observed by Mr. Squire were rather lower than those of most Continental observers, and some, indeed, seemed almost normal.

Dr. Rasch was of opinion that the accuracy of the observations could not be depended on unless the thermometer were allowed to remain at least a quarter of an hour or twenty minutes in the axilla. The experience of all who had paid most attention to the subject was that a perfectly accurate temperature was not obtainable in two or three minutes.

Dr. J. J. Phillips referred to some observations furnished by Mr. Goodhart in the last number of the Guy's reports, tending to prove that for practical purposes three minutes was a sufficient time to allow the thermometer to remain in the axilla if care were taken to hold its bulb in close apposition to the skin.

Mr. Squire said that the thermometer had been retained in close contact with the skin from two to five minutes, and the accuracy of the observations secured by frequent comparisons. Evening visits were frequently made because the elevation of temperature at that time is of the greatest importance, and is sometimes the only indication of the ingress of infectious diseases. We may thus prevent the spread of the disease by early isolation. In the scarlet fever temperature tables the beneficial influence of quinine could be distinctly traced. The same might be said of some cases of hooping-cough and tuberculosis.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 26th inst., viz.:

Amadeo, Antonio Jose, M.D. Philadelphia, Porto Rico, of Philadelphia.
Carter, Alfred Henry, L.S.A., Pewsey, Wilts, of University College.
Chute, Henry Macready, Bristol, of the Bristol School.
Deshon, Frederick Peter, L.S.A., Coulston, Wilts, of the Middlesex and London Hospitals.
Dixon, John, Newcastle-upon-Tyne, of the Newcastle-upon-Tyne College of Medicine and Surgery.
Ghose, Kristo Dhan, Licentiate in Medicine, Calcutta, of the Calcutta Hospital.
Glanville, Doyle, Gloster-road, N.W., of University College.
Holmes, Charles, L.R.C.P. Lond., Ardwick, of the Manchester Royal School of Medicine and Surgery.
Jackson, Henry Ensworth, Highbury, of Guy's Hospital.
Jervis, Charles, St. John's Wood-park, of St. Mary's Hospital.
Lambart, William Hugh, Liverpool, of the Birmingham School.
Liston, James Robert, Peckham, of St. Mary's Hospital.
O'Leary, Morgan Philip, Ballintarmin, County Kerry, of the Dublin School.
Palmer, William James, L.S.A., Great Yarmouth, of University College.
Payne, Martin Henry, L.R.C.P. Edin. and L.S.A., Bridgwater, of University College.
Robinson, John Desborough, Syston, Leicestershire, of the Charing-cross Hospital.
Stickland, Samuel, New Charlton, Kent, of Guy's Hospital.
Webster, Henry William, Tamworth, Staffordshire, of the Manchester Royal School of Medicine and Surgery.
Wood, Edwin Brownrigg, Birmingham, of the Birmingham School.
Young, Adam, Boston, Lincolnshire, of St. Bartholomew's Hospital.

At this meeting the following gentlemen, who passed in Surgery at previous meetings of the Court, having subsequently obtained qualifications in Medicine recognised by the College, were also admitted members:—

Dove, William W., L.R.C.P. Edin., Ledbury-road.
Eagle, Henry Frederick C., L.S.A., London Hospital.
Evans, Samuel, L.S.A., Llandovery, South Wales.
Hogg, Arthur John, L.R.C.P. Edin. Ealing.
Leigh, W. Richmond, L.S.A., Liverpool.
Nicholls, Howard H. J., L.S.A., Kennington-park.
Parmiter, Henry, L.S.A., Dorchester.
Renwick, William, L.R.C.P. Edin., Tyr Phil, Glamorgan.
Way, Edward Willis, L.R.C.P. Lond., Adelaide, South Australia.

The following gentlemen passed on the 27th inst.:—

Allen, Matthew, L.S.A., Dudley, of the Birmingham School.
Baker, Alfred, Southport, of the Liverpool School.
Biddle, Cornelius, Merthyr Tydvil, of the Dublin School.
Bishop, John, L.R.C.P. Edin., Sheffield, of the Edinburgh Infirmary.
Dudley, William Henry, Stafford, of the Glasgow School.
Edmonds, Frederick H., Croydon, of University College.
Groom, Charles F., Horton, Bucks, of University College.
Hickman, Richard, Newbury, Berks, of the Dublin School.
Holland, Neville, L.S.A., St. Ives, Hants, of St. Bartholomew's Hospital.
Ingoldby, Joseph T., Finsbury-square, of Guy's Hospital.
Lediard, Henry A., M.B. Edin., Cheltenham, of the Edinburgh Infirmary.
Lee, Edward S., L.S.A., Savile-row, of St. George's Hospital.
Millson, George, L.R.C.P. Lond., Donnington, near Spalding, of St. Mary's Hospital.
Norman, Alfred B., Ilkeston, of St. George's Hospital.
Norman, George, Ladbroke-grove, W., of St. George's Hospital.
O'Connor, Charles, Cavan, of University College.
Perkins, Charles E. S., L.S.A., Exeter, of Guy's Hospital.
Swan, Richard J., Dublin, of the Dublin School.
Taylor, George S., Heworth, Yorks, of the Leeds School.
Tennant, Edward G., Stanford-road, W., of St. Mary's Hospital.
Walker, Thomas A., Dudley, of the Birmingham School.

APOTHECARIES' HALL. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 21, 1870 :—

Aston, John Pitney, Eccleshill, near Leeds.
Davies, William Bowen, Llandovery.
Hepworth, William Henry, Heathfield, Sussex.
Peele, John Richard, Gower-street, Bedford-square.
Shaw, Bernard John, Attercliffe, Yorkshire.

As Assistants in Compounding and Dispensing Medicines:—

Haydon, William Frederic, Fordingbridge.
Hogg, Joseph Fawcett, North Shields.

The following gentlemen also on the same day passed their First Professional Examination :—

Bridgman, Harry Edward, St. Bartholomew's Hospital.
Glanvile, John, St. Bartholomew's Hospital.
Godfray, Amiraux, St. Bartholomew's Hospital.
Thomas, John Howell, London Hospital.
Wall, William Barrow, University College.
Watson, Walter George, St. Mary's Hospital.
Weatherhead, John Frazer, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BELLAMY, Mr. EDWARD, F.R.C.S.—Assistant-Surgeon to Charing-cross Hospital.

GODSON, CLEMENT, Senior Obstetric Assistant to St. Bartholomew's Hospital.—Surgeon Accoucheur to the City of London Lying-in Hospital *vice* Hetman C. Harris, F.R.C.S., deceased.

MACALDIN, Dr.—Physician to the Westminster General Dispensary, Gerrard-street, Soho.

SNOW, H. LUMLEY, M.B. Lond., M.R.C.S., L.S.A.—House-Surgeon to the South Staffordshire General Hospital, *vice* Mr. J. C. McDonald, resigned.

MILITARY APPOINTMENTS.

BENGAL ARMY.—To be Surgeon-Major: Surgeon David Young, M.D.

MADRAS STAFF CORPS.—To be Surgeon-Major: Surgeon John Wilson.

BIRTHS.

ATKINSON.—On July 4, at Gananoque, Ontario, the wife of E. L. Atkinson, M.D., of a daughter.

CRESSWELL.—On July 22, at Lee, the wife of Richard Cresswell, Surgeon, of a son.

EARLE.—On July 22, at Brentford, the wife of E. S. Earle, Esq., F.R.C.S., of a son.

HILSON.—On July 10, at Bijnour, N.W. Provinces, India, the wife of Archibald Hamilton Hilson, Esq., M.D., Surgeon H.M.'s Indian army, of a daughter.

HUNTER.—On July 12, at Eckington, Derbyshire, the wife of W. M. Hunter, M.D., of a son.

JENNER.—On July 25, at Baldock, Herts, the wife of William Jenner, Surgeon, of a son.

MARSDEN.—On July 23, at 65, Lincoln's-inn-Fields, the wife of Alexander Marsden, M.D., of a daughter.

MIDDLETON.—On July 12, at Manorhead House, Stow, N.B., the wife of James Middleton, M.D., of a son.

MOGER.—On July 19, at Carshalton, Surrey, the wife of Frederic Slade Moger, M.R.C.S., L.M., L.R.C.P. Lond., of a daughter.

MORE.—On July 6, at Rothwell, Northamptonshire, the wife of Dr. James More, of a daughter.

MURRELL.—On July 20, at Grand Parade, Portsmouth, the wife of W. H. J. Murrell, Surgeon, of a daughter.

OLIVE.—On July 14, at Northampton, the wife of Eustace H. Olive, M.R.C.S., of a daughter.

OVENS.—On July 16, at Alva Thorp Villa, Leopold-street, Leeds, the wife of J. Coote Ovens, Surgeon, 5th Dragoon Guards, of a daughter.

RHIND.—On July 12, at Mirfield, the wife of John Rhind, M.D., of a daughter.

ROBINSON.—On July 17, the wife of Rawdon B. Robinson, Esq., Dulverton, of a son.

TEALE.—On July 22, at Scarborough, the wife of J. W. Teale, F.R.C.S., of a daughter.

WILLIAMS.—On July 26, the wife of P. M. G. Williams, M.R.C.S. Eng., of Tregarched, Pembrokeshire, of a son.

MARRIAGES.

ARTHUR—COCKRELL.—On July 16, at St. Stephen's, South Lambeth, Hugh Arthur, nephew of Dr. Arthur, Commercial-road, to Phœbe Maria, eldest daughter of Mr. F. Cockrell, Clapham-road.

FOOTE—CORBITT.—On July 23, at the parish church, Rotherham, Harry D'Oyley Foote, Esq., M.D., of Rotherham, to Annie Maria, second daughter of W. Corbitt, Esq., Elm Tree Bank, Rotherham.

GRAY—LAW.—On July 21, at Kirndown, Kent, Edward Benjamin Gray, M.A., and M.D., of Exeter College and St. Giles's, Oxford, to Stephana Cartier, daughter of the late Francis Law, Esq., formerly of Bedgbury-park, Kent.

HOPKINS—SMITH.—On July 23, at St. Mary's, Bryanston-square, Alfred Boyd Hopkins, M.R.C.S., third surviving son of John Hopkins, Esq., of Laurie-park, Sydenham, to Frances Eliza, third daughter of J. E. Smith, of Gloucester-place, Portman-square.

IRVINE—EDIE.—On July 19, at St. Silas', Liverpool, John W. Irvine, M.D., to Mary, widow of John Edie, M.A., L.R.C.S. Edin.

KAPPELER—GILL.—On July 25, at St. Peter's Church, De Beauvoir-square, Dr. J. Alfred Kappeler, of Zurich, Switzerland, to Jessie, youngest daughter of Nathaniel Gill, Esq., Mortimer-road, N.

PHILLIPS—GRIERSON.—On July 19, at Walcot Church, Bath, Arthur Noel Phillips, Lieutenant H.M.'s Bengal Army, and Assistant Commissioner in Assam, to Agnes, youngest daughter of the late David Grierson, M.D., Deputy Inspector-General of Hospitals, Poona.

REED—INSTONE.—On July 13, at St. Paul's Church, Hammersmith, Samuel Cartwright Reed, M.D., of Fulham, to Florence, only daughter of S. Instone, Esq., of Acton.

SIMPSON—MACAOAIN.—On July 27, at Migvie-house, Aberdeen, George Alexander Simpson, M.B., son of the late Alexander Simpson, M.D., Surgeon Major H.M.'s, Indian Army, to Jane Henzell, second daughter of John Macrobin, M.D., Professor of Medicine in the University of Aberdeen.

THOMPSON—TAYLOR.—On July 23, at St. Edmund's Church, Norwich, William Allin Thompson, Esq., Surgeon, Oxford, to Mary, eldest daughter of the Rev. Thomas Taylor, rector of St. Edmund's, Norwich.

DEATHS.

ASHTON, ELIZABETH BEVERLEY, the beloved wife of Thomas J. Ashton, Esq., after a brief illness, at 31, Cavendish-square, on July 22.

ATTHILL, ROBERT, Surgeon, late of Ipswich, at the residence of his son, Stoke Newington, on July 20, aged 77.

BAKER, HELEN, the beloved wife of Francis Baker, M.R.C.S., at Hampton Court, after a few days' illness, on July 25.

BALL, JOHN J., Assistant-Surgeon 33rd Regiment, at the Camp at Aldershot, on July 20, aged 26.

BERRYMAN, EDITH FAANCES EMMELINE, the infant daughter of Dr. C. V. Berryman, at Yorkville, B.N.A., on June 30.

BOWEN, AUSTIN, Assistant-Surgeon, 67th regiment, in London, on July 23.

EDEN, THOMAS EDWARD, jun., F.R.C.S., at his residence, 26, Old Steine, Brighton, after a long and painful illness, on July 21.

EVATT, HENRY JAMES, eldest son of the late Dr. W. H. Evatt, at Port Hope, on July 4, aged 24 years.

JONES, J. LLOYD, Surgeon, son of the late George D. Jones, of Treborth, at Cerrig-cottage, Holywell, on July 10.

MAYD, ELIZABETH, only daughter of the late John Winslow Mayd, M.D., of Epsom, and sister of the Rev. Wm. Mayd, of Withersfield, Suffolk, at 10, Royal Crescent, Bath, on July 24, in the 75th year of her age.

MIDDLETON, J. W., M.D., M.R.C.S.L., at Brussels, on July 20, in the 33rd year of his age.

O'BRYEN, JOHN ROCHE, M.D., at his residence, 20, Thistle-grove, South Kensington, S.W., suddenly, of disease of the heart, on July 26, aged 58.

UNDERWOOD, JANE ANNIE, the beloved wife of Dr. Underwood, of Hastings, on July 25, aged 42. Friends will kindly accept this intimation.

WILSON, AGNES, widow of the late Henry Wilson, Surgeon, of Runcorn, Cheshire, at 3, St. John's-villas, Overton-road, Brixton, on July 21, aged 51.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BOURNEMOUTH GENERAL DISPENSARY.—Resident Surgeon. Applications on or before August 10.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—Resident House-Surgeon; must be M.R.C.S. of Great Britain or Ireland and L.R.C.P. Lond. or L.S.A., and duly registered. Applicants must send their testimonials, with a certified copy of registration, under cover to the Chairman of the Committee, on or before August 3.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Medical Officer and Assistant Medical Officer. Applications by August 1.

DONEGAL DISTRICT LUNATIC ASYLUM, LETTERKENNY.—Consulting and Visiting Physicians. Applications by August 3.

EASTERN DISPENSARY, BATH.—Assistant Medical Officer; must be M.R.C.S. and L.S.A. Applications and testimonials to R. E. Crickitt, Esq., 4, Belvedere-villas, Bath, on or before the 31st inst. Notice of the day of election will be sent to selected candidates.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD.—Surgeon. Candidates, who must be F.R.C.S., are invited to send their applications and testimonials to the Secretary, 46, Great Coram-street, W.C., on or before August 10.

ISLAND OF SANDAY, ORKNEY.—Medical Officer. Applications and testimonials to be forwarded to the Chairman of the Parochial Boards, Sanday, Kirkwall, marked "Medical tenders," on or before August 10.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Salary £100, with furnished rooms, attendance, gas, coals, etc. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

KENSINGTON DISPENSARY.—Junior Resident Medical Officer. Candidates must be under 35 years of age, and duly registered. Salary £100 per annum, with furnished apartments. Testimonials to be sent to the Dispensary before August 13, where full particulars may be obtained.

MIDDLESEX HOSPITAL.—Lecturer on the Principles and Practice of Surgery, Surgeon, Assistant-Surgeon: Applications by August 25. Resident Physician's Assistant. Applications by July 30.

NEWCASTLE-UPON-TYNE INFIRMARY.—Assistant-Surgeon. Applications by August 4.

NEWPORT UNION, MONMOUTHSHIRE.—Medical Officers required for the following districts of this Union :—Bedwas, Risca, Marshfield, Caerleon, and Magor. Candidates must be duly qualified and registered, and will be required to reside in the districts to which they are appointed. Applications and testimonials to W. D. Evans, clerk, on or before August 12. Election on the 20th.

NORTH WALES COUNTY LUNATIC ALYLUM, DENBIGH.—Assistant Medical Officer. Applications by August 9.

Royal Berkshire Hospital, Reading.—House-Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary, on or before August 1. Election on the 16th.

South Devon and East Cornwall Hospital, Plymouth.—House-Surgeon. Salary £80 a year, with board and residence. The candidate must be a Member of one of the Colleges of Physicians or Surgeons in the United Kingdom. Testimonials to be sent to Alfred Rooker, Secretary, on or before the 31st inst.

Westminster Hospital.—Resident House-Surgeon. Applications by August 6.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

North Witchford Union.—Mr. Henry Barry has resigned the Fourth District; area 14,126; population 2785; salary £40 per annum.

Scarborough Union.—Mr. Charles Arthur has resigned the Scalby District; area 17,404; population 2090; salary £80 per annum.

APPOINTMENTS.

Burnley Union.—John Lord, L.R.C.P. Edin., L.F.P. and S. Glas., L.M., to the Pendle District.

Dewsbury Union.—Mr. Richard N. Halliwell, M.R.C.S. Eng., L.S.A., to the Workhouse. Mr. Walter J. Sykes, M.D., M.B., and M.C. Edin., to the Liversedge District.

Drayton Union.—Wm. S. Meek, M.R.C.S. Eng., L.S.A., to the Cheswardine District.

Gateshead Union.—John J. Atkinson, M.R.C.S. Eng., L.S.A., to the Ryton District.

Paddington Parish.—William V. Lyle, M.R.C.S.E., L.R.C.P. Edin., M.D. Aber., to the Western District.

Stratford-on-Avon Union.—Wm. Louis Le Sage, M.R.C.S. Eng., L.S.A., to the Workhouse.

Ledwich School of Medicine, Dublin.—Summer Session.—Prizes awarded: Materia Medica, T. W. Myles, 1st; William Howlin, 2nd; J. Panter, certificate. Midwifery, C. H. Swayne, 1st; T. R. Stewart, 2nd; B. P. Phillpot, certificate. Botany, T. J. Tighe, 1st; T. W. Myles, 2nd; T. R. Stewart, certificate. Forensic Medicine, C. Campbell, 1st; R. Johnston, 2nd. Chemistry, T. W. Myles, 1st; T. Maloney, 2nd.

Baboo Gopaul Chunder Roy on Indian Medicine.—The Hunterian Society is about to hold a special meeting (after the conclusion of its session) in order to hear a lecture from Baboo Gopaul Chunder Roy on the History of Medicine in India. The Society is fortunate in the possession of a magnificent room for its meetings—the Lecture Theatre of the London Institution—which is lofty enough and cool enough for a summer assembly, and capable of accommodating any number. A large attendance is expected. Baboo Keshub Chunder Sen, the well-known Indian religionist, is to be present, and will address the meeting. He is, we understand, a cousin of Baboo Roy. The meeting will be an open one; and any member of the Profession desirous of attending, or of introducing friends, will be admitted on presenting his card. The London Institution is in Finsbury Circus, and the meeting will take place at 8 o'clock, on Wednesday, August 3.

Quekett Microscopical Club.—The fifth annual general meeting of this Club was held on Friday evening last, July 22, at University College, Gower-street; Peter Le Neve Foster, Esq., president in the chair. According to the annual report of the committee, which was read, the Club still maintains its popularity and success. It numbers over 500 members, and meets for the prosecution of microscopical inquiry and discussion twice a month throughout the year. Mr. Peter Le Neve Foster in vacating the presidential chair, which he had so ably filled during the past year, delivered his valedictory address in which he called attention to various open questions in microscopical science—fields well worth the labour required for their investigation, and which he considered the members might undertake with pleasure to themselves, and advantage to the world at large. Professor Lionel S. Beale, F.R.S., was elected president for the ensuing year; and Messrs. Henry Lee, F.L.S., Arthur E. Durham, F.R.C.S., Peter Le Neve Foster, M.A., and Dr. Robert Braithwaite, F.L.S., were elected Vice-Presidents; while Messrs. Allbon, T. W. Burr, F.R.A.S., Witham M. Bywater, and Charles F. White were elected to fill four vacancies on the committee. The proceedings then terminated in a *conversazione*.

The French Society for the Medical Instruction of Women.—This society, which has just been founded in Paris, under the immediate patronage of the Empress, has determined upon founding a school for separate Medical education, the programme of which was recently laid before her Majesty by MM. Duruy, Husson, Nélaton, and Milne-Edwards. During the first *semestre* the pupils are to follow the courses of lectures instituted for young women at the Sorbonne, and which comprise physics, chemistry, botany, the elements of anatomy and physiology, and the elements of mathematics. During the second *semestre* special courses on Medical and pharmaceutical chemistry, and on anatomy and physiology are to be followed, together with an elementary course on pathology, especially as relates to children's diseases and hygiene. At the end of the second *semestre* Hospital attendance is to be commenced, and special conferences and demonstrations may be attended. Those who contemplate seeking practice in Mussulman countries will be enabled to follow courses on the Turkish and Arabic languages. At the end of the year an examination will be held to ascertain which pupils are fitted to pursue the superior courses of Medical instruction.

Charing-cross Hospital.—The annual distribution of prizes to the students of the Medical School attached to this Hospital took place on Monday afternoon, in the Board-room of the Hospital. The Dean of Westminster presided. Dr. Pollock (the Dean), in presenting his annual report, congratulated the school upon its continued prosperity, and especially adverted to the cordial co-operation and good feeling of the Hospital authorities, as shown more especially by the improvements which they are about to make in the school premises. The governors, having secured the possession of two more houses in Chandos-street, would shortly increase the number of beds to 150. The addition to and enlargement of the school accommodation would include a new museum, dissecting-room, laboratory, and offices, the whole of which are expected to be completed by October 1 next. The increase in the number of beds would necessitate an enlargement of the staff, which would strengthen the school as well as increase the efficiency of the Hospital. After speaking of other matters of congratulation and satisfaction, Dr. Pollock concluded his report by observing that at the Charing-cross Hospital the Medical student would find every means of acquiring a thorough knowledge of his Profession. The prizemen were as follows:—

Llewellyn Scholarship.—Mr. Noakes.
Golding Scholarship.—Mr. Chittenden.
Gold Medal.—Mr. Noakes.
Senior Anatomy.—Silver Medal: Mr. Lea. Certificates of Honour: Mr. Taylor and Mr. Crouch.
Junior Anatomy.—Bronze Medal: Mr. Hartley. Certificates: Mr. Orwin and Mr. Stephens.
Senior Physiology.—Silver Medal: Mr. Lea. Certificate: Mr. Chittenden.
Junior Physiology.—Bronze Medal: Mr. Gray.
Chemistry.—Silver Medal: Mr. Leeds. Certificate: Mr. Couldrey.
Senior Medicine.—Silver Medal: Mr. Walker. Certificate: Mr. Noakes.
Junior Medicine.—Bronze Medal: Mr. Routh. Certificate: Mr. Lea.
Senior Surgery.—Silver Medal: Mr. Noakes. Certificate: Mr. Burroughs.
Junior Surgery.—Bronze Medal: Mr. Routh. Certificate: Mr. Lea.
Botany.—Silver Medal: Mr. Whitelam. Certificate: Mr. Taylor.
Materia Medica.—Silver Medal: Mr. Lea. Certificates: Mr. Whitelam and Mr. Chittenden.
Midwifery.—Silver Medal: Mr. Burroughs. Certificates: Mr. Noakes and Mr. Leigh.
Forensic Medicine.—Silver Medal: Mr. Leigh. Certificate: Mr. Weston.
Pathology.—Silver Medal: Mr. Leigh. Certificate: Mr. Hanson.
Practical Chemistry.—Silver Medal: Mr. Lea. Certificate: Mr. Champneys.

Flight—Figure of 8 Wave Theory of Wing Movement.—In the *Proceedings of the Royal Institution of Great Britain* for March, 1867, Dr. J. Bell Pettigrew, F.R.S., the distinguished curator of the Museum of the College of Surgeons of Edinburgh, announced the startling discovery that all wings, whether those of the insect, bat, or bird, were twisted upon themselves structurally, and that they twisted and untwisted during their action—that, in short, they formed *mobile helices* or screws. In June of the same year (1867), Dr. Pettigrew, following up his admirable researches, read an elaborate memoir "On the Mechanism of Flight" before the Linnean Society of London, in which he conclusively proves, by a large number of dissections and experiments, in which he greatly excels, that not only is the wing a screw structurally and physiologically, but farther, that it is a reciprocating screw. He shows, in fact, that the wing during its oscillations describes a figure of 8 track, similar to that described by an oar in sculling. This holds true of the vibrating wing of the insect, bat, or bird, when the bodies of these animals are artificially fixed. When, however, the creatures are liberated, and flying at a high horizontal speed, the figure of 8, as he points out, is curiously enough converted into a wave track, from the wings being carried forward by the body, and from its consequently never being permitted to complete more than a single curve of the 8. This is an entirely new view of the structure and functions of the wing, and one fraught with the deepest possible interest to the aëronautical world. It promises to solve everything. Dr. Pettigrew's remarkable discovery has received an unlooked-for confirmation within the last few

months at the hands of Professor Marey, of the College of France, Paris. This gentleman, who has acquired great celebrity for his improvements and dexterity in the use of the sphymograph, has succeeded in causing the wing of the insect and bird to register their own movements, and has established by an actual *experimentum crucis*, the absolute correctness of Dr. Pettigrew's views. Professor Marey's mode of registering displays much ingenuity, and is briefly as follows :—A cylinder, revolving at a given speed, is enveloped by a sheet of thin paper smeared with lampblack; and to this the tip of the rapidly vibrating wing of the insect is applied in such a manner as to cause it to brush out its track on the blackened paper, which it readily does. A similar result is obtained in the bird by fixing a registering apparatus to the wing, and causing the bird to fly in a chamber. In this case the registering apparatus is connected with the cylinder by means of delicate wires, and the registering is effected by means of electricity. In both cases, the figure of 8 and wave movement, originally described by Dr. Pettigrew, are faithfully reproduced. It is difficult to foresee what next. The way of a wing in the air has hitherto been regarded as a physiological puzzle of great magnitude; and well it might be, since some insects (the common fly, for example) vibrate their wings at the almost inconceivable speed of 300 strokes per second—that is, 18,000 times in a minute.(a) —*Scientific Opinion.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr Gavin Milroy is thanked. The notice shall appear.

House-Surgeon.—If the patient has died in the Hospital the House-Surgeon can make no claim on the coroner, although the post-mortem has been made by his order; but if the subject of examination has been brought in dead he can do so.

Beta.—The papers can be obtained at Eyre and Spottiswoode's, East Harding-street, Fetter-lane.

A.Z.—The contract must be in writing; such an agreement if verbal would be valueless under the statute of frauds.

A Pupil (Leeds).—Dr. Copland's Dictionary can be obtained by order of any bookseller. There is an abridgment which is ably edited by his nephew.

Mr. W. Smith should apply to the Prussian ambassador.

C.B.—Yes, he was originally in the Medical Profession, and was Surgeon in chief to the Spanish legion in the Carlist war. He published some very important articles on the Surgery of the campaign. His health being precarious, he was appointed consul at Shanghai, and since this has highly distinguished himself in the diplomatic service.

St. Aubins, Jersey.—The list is too long for publication. The county Hospital you mention is *not* recognised, although pupilage to the gentleman filling the office of Surgeon to it will be if notice be sent to the Secretary of the College.

Dr. De L.—It was Napoleon who, in a letter to Cambacérès, said that "priests and doctors make death more painful." A libel on one as much as the other.

A Fellow, St. Bartholomew's.—The late Mr. Edward Stanley was elected a Member of the Council of the College of Surgeons on October 24, 1844, in the vacancy occasioned by the resignation of Mr. H. L. Thomas.

The Alfred Medical College.—The Maharajah of Vizianagram has given £20,000 for the foundation of a Medical College at Allahabad, to commemorate his interview with the Duke of Edinburgh.

Female Doctors.—The official *Gazette* of Sweden contains a Government notice that henceforward women in that kingdom will be allowed to study and practise Medicine on the same footing as men.

Some Remarks on Dr. Hartsen's Question Whether Consumptive Persons should Marry.

By Professor Virchow (from Virchow's *Archiv*).

In my quality of editor, I never take upon myself the responsibility of what is written by others in my review. But I specially reject this responsibility with regard to Dr. Hartsen's views of the subject in question. I have published these views because the subject requires the most earnest consideration, and because I thought it just not to shut up the mouth of an antagonist.

The answer which Dr. Hartsen gives to this question is likely, coming as it does from one who is consumptive himself, to be different from what it would have been from a disinterested person. The invalid, naturally, would be more ready to answer affirmatively, and he would be led to do so even if it were not true that phthisis, in irritable subjects, increases the instinct of procreation. The invalid will reason just like Dr. Hartsen. He will even go so far, perhaps, as to ignore whether it is allowed or not to forget the laws of chastity. Passion subdues the intellect, and a phthisical Medical man even is not guaranteed against this misfortune.

I remember perfectly well one of our most talented pathological anatomists, descended from a family in which phthisis was hereditary. He had lost his father and two brothers from the disease, and in his youth he protested most strongly that he would never marry. Nevertheless, his time came also. He married, and before a year had passed he died from an acute attack of phthisis.

We must not judge such aberrations more severely than we would have our own aberrations judged. But, as Medical men, we must not be guided by the subjective opinions of our patients, even when they are Medical men themselves. How much soever we may dissuade from marrying there will always be consumptive subjects who will neglect all advice. We cannot forbid it, and we will not do it. But we feel bound to warn, and to dissuade from decisions which might be prejudicial both to the chest invalid himself and to his posterity, besides bringing distress in many ways upon his family.

With regard to the consumptive patient himself, it is impossible to doubt that tubercles in the male sexual organs (testis, vas deferens, prostata) develop themselves in most cases during the period of puberty, and in the first years after marriage. It is true that in the case of a very young boy (see my work *Geschwülste*, vol. ii. p. 685) I have seen them before this epoch. These, however, are very rare exceptions. On the contrary, I have often met with cases, among chest invalids, where marriage was the signal for the development of acute tuberculosis of prostata, etc.

Among women something of the kind happens, although more rarely, in their confinements. I have frequently seen tuberculous endometritis ensue from a confinement. And if this latter disease is not so dangerous as tuberculosis of the prostata, it nevertheless combines itself easily with tuberculous peritonitis, and then it is not to be neglected. I leave it undecided how far blennorrhagic processes contribute to the breaking out in such cases of tuberculosis in the sexual organs of man or woman. But I must advise that the greatest attention should be paid to this form of the disease, though my experience of the origin of tuberculosis in the uterus, the tubes, and the vagina seems to prove that in these parts, the same as in the lungs, the eruption of tubercles is provoked by primary catarrhs. However, in the matter before us, the question refers not alone to tubercles in the sexual organs, but to the increase of, or relapse into, phthisis which had already existed. For a long time people have preached to women the vain consolation that pregnancy and the confinement had a salutary influence upon phthisis which existed before marriage, and also where there was a threatened tendency to it. Already Grisolle (*Archives générales*, 1850, Jan. p. 41) and Dubreuilh (*Bullet. de l'Acad. de Méd.*, vol. xviii. p. 14) have proved the contrary by mentioning a great number of cases. For my own part I must recognise that happily there are cases in which a confinement does not increase phthisis, nevertheless every active Medical man will find opportunity enough to certify the great danger of a confinement to chest invalids. One should never forget that so many women disposed to phthisis cannot avoid, either from affection or from poverty, suckling their children, and this is one of the most dangerous chances of death from phthisis.

Dr. Hartsen seems to have thought less of women than of men. He supposes that women will also be reasonable, and keep within bounds. But what force has reason against the temptation to sexual pleasure? A young husband has rarely the opportunity to be moderate. For this is exactly the danger of marriage, that it makes the temptation so easy. Indeed, nothing is more common than that young men of phthisical families die in the first years after marriage. How many young widows are made by such unions?

Also, as to the danger to children of phthisical parents, Dr. Hartsen passes over this with a lightness which we cannot approve. He considers it already a reason for indulging, that there are marriages without children. But who marries to have no children? He consoles himself with the fact that all children of chest invalids do not become consumptive themselves. Of course they do not. But there are few among them who have not weak health, and who are not in danger at least of giving to their children the seeds of, or a predisposition to, the disease. And how many of the children of chest invalids do become tuberculous! But Dr. Hartsen has the new consolation for the present generation at least, that we shall soon make progress in the treatment of the disease. I think that I have myself somewhat contributed towards this, in driving away from a great number of phthisical patients, especially chest invalids, the spectre of tuberculosis. Nevertheless we must not go so far as to suppose that there is no tuberculous phthisis, and that a cheesy pneumonia does not give rise to hereditary predisposition. My own conviction is that Therapia will never reach so far as to cure tuberculosis.(a) It is, therefore, a vain effort to console one's self and others that this is possible.

Not long ago two fathers, in whose families phthisis had made sad ravages, asked me if they could allow their children to marry. On this occasion, as well as on others, I advised the parents to set before their children, without reserve, the dangers to which they would be exposed in marrying, but to leave them free, of course, to act upon their own responsibility. This, to my mind, is the last concession which a Medical man can make.

In the olden time lepers were forbidden by law to marry. The more humane tendency of modern times excludes such coercive measures. This tendency, however, does not give the right to advise chest invalids to marry; just as we have no right to give the permission where there is hereditary disposition to madness.

"Operation Tuesday at Guy's Hospital."

To the Editor of the Medical Times and Gazette.

Sir,—Although Time has already commenced to play his old tricks with my locks, not one whit the less has he been able to alienate my affections from Guy's Hospital and its associations, that were it in my power to chasten its executive it would indeed be the chastening of love not of anger.

Some years since on Tuesday, at the usual hour, students, friends, and others anxious to retain recollections of their surgical love, to witness the advances made in that art, as well as to admire the skilful manœuvring of the accomplished *chirurgien*, congregated in goodly numbers to the theatre, where they were welcomed by their old friends and their old masters, if not by the goodly number of patients seeking relief at the hands of the operators, and the rule was that visitors retired not only gratified but enlightened. Now, mark fresh circumstances and fresh results. One point alone remains as before—viz., the weekly notice of operations at Guy's Hospital on Tuesday at 1.30 p.m.; otherwise, all is changed; for the operating theatre is now enlarged and much improved,

(a) This memoir, which is illustrated by nearly 100 original figures, is published in vol. xxvi. of the "Transactions" of the Society.

(a) Why not?—*Translator.*

the Surgical beds in the building greatly increased; both events being coincident with the sale of the late St. Thomas's Hospital to a railway company. Now for results of such change. An opportunity offering to visit the old loved home of your student days, you of course select an operating day as per advertisement, and on reaching the colonnade of that institution you probably find a few students loitering there, an evidence in your innocent mind that the majority are already engaged in witnessing the skilful removal of a limb or the ligature of a femoral; consequently you hasten upstairs and find to your dismay, what? Well if an Assistant-Surgeon has a piece of bone to scrape away from a carious cuboid and a senior a tumour to explore, you must at its conclusion consider that you have "done a Guy's operation." Sometimes, indeed, no operation is required on that day whatever, and you leave marvelling, puzzled, and disappointed. Now what inferences may be drawn from this somewhat remarkable phenomenon, remarkable at least to an old Guy's man? Let us in speculating thereon first assume the charitable view. The authorities still record in print operations for Tuesday because they cannot possibly assert that such may not take place on that day, and if Surgery be so surpassingly conservative at Guy's as to require such paucity of operative procedure, such immunity from the knife must be hailed by all as eminently satisfactory and especially an honour to the Surgeons of that institution. Next, let us take the common sense view. Assuming as I sincerely believe that the Surgeons of Guy's are quite equal to those of any other similar institution in the United Kingdom, then in a given number of Surgical cases, other things being equal, an equal proportion of Surgical procedures must be necessitated; then what becomes of them? The Surgery of Guy's must have nearly doubled itself since the days of St. Thomas's Hospital as a neighbour, not coadjutor, that operations must be performed on other days than on those advertised, and consequently such advertisement is very nearly a hoax, a delusion, and a snare.

Now if the Surgeons prefer to operate at their own time and hour with the assistance of their dressers, the public have no business with the matter however much they may deplore and deprecate it; but I would with much respect suggest that the notice in question be in future omitted from the Medical periodicals, and by so doing avoid loss of time and disappointment to the friends and visitors of Guy's Hospital and to your obedient servant,

A Surgeon.

June 21.

COMMUNICATIONS have been received from—

Dr. Phillips; Professor Cleland; Dr. George Johnson; Dr. Gavin Milroy; Mr. C. E. Hardyman; Mr. H. Hart; Professor Longmore; Mr. P. M. G. Williams; Dr. Ralph Richardson; Mr. J. Chatto; Professor Erasmus Wilson; Mr. T. Spencer Wells; Mr. H. Arnott; Dr. Day; Mr. E. Bellamy; Veritas; Messrs. Letts, Son, and Co.; Messrs. J. B. Spence and Co.; Dr. Alexander Yule; Dr. G. Johnson.

BOOKS RECEIVED—

Letts's War Map of Central Europe—Barker on the Treatment of Croup—Armatage's Veterinarian's Pocket Remembrancer—Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital—Tyndall's Notes on Electricity.

NEWSPAPERS RECEIVED—

Liverpool Daily Courier—Medical Press and Circular—Family Friend—Scotsman—Nature—Pharmaceutical Journal.

APPOINTMENTS FOR THE WEEK.

July 30. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women 9½ a.m.; Royal London Ophthalmic, 11 a.m.

August 1. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

2. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

Hunterian Society, 8 p.m. Special Meeting. Baboo Gopaul Chunder Roy, "On the State of Medicine in India before the British Rule."

4. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m. West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

5. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 23, 1870.

BIRTHS.

Births of Boys, 1070; Girls, 1067; Total, 2137.
Average of 10 corresponding weeks, 1860-69, 1896·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	900	854	1754
Average of the ten years 1860-69	711·9	663·8	1375·7
Average corrected to increased population	...	...	1514
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	6	31	...	3	...	4	4	67
North ...	618210	8	9	30	2	3	4	8	1	67
Central ...	383321	...	7	14	2	...	3	2	4	39
East	571158	1	5	11	...	2	1	2	2	84
South	773175	5	6	44	3	12	2	6	3	128
Total	2803989	15	33	130	7	20	10	22	14	385

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·988 in.
Mean temperature	68·5
Highest point of thermometer	88·1
Lowest point of thermometer	53·7
Mean dew-point temperature	55·5
General direction of wind	Variable.
Whole amount of rain in the week	0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 23, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending July 23.	Deaths Registered during the week ending July 23.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2137	1754	88·1	53·7	68·5	20·28	0·00	0·00
Portsmouth ...	122084	12·8	93	40	83·3	53·7	66·2	19·00	0·00	0·00
Norwich	81087	1·09	58	38	79·0	54·0	64·3	17·94	0·08	0·20
Bristol	171382	36·6	101	98	86·9	53·9	64·4	18·00	0·03	0·08
Wolverhampton ...	72990	21·5	41	21	87·2	51·7	65·8	18·78	0·00	0·00
Birmingham ...	369604	47·2	236	156	86·9	52·7	66·1	18·94	0·00	0·00
Leicester	97427	30·4	57	69	89·5	50·7	66·6	19·22	0·00	0·00
Nottingham ...	88888	44·5	63	36	84·7	50·7	65·1	18·39	0·01	0·03
Liverpool	517567	101·3	370	322	84·6	55·7	64·6	18·11	0·01	0·03
Manchester ...	374993	83·6	281	164	90·0	51·0	65·1	18·39	0·11	0·28
Salford	121580	28·5	89	65	88·4	49·0	63·6	17·56	0·11	0·28
Bradford	143197	21·7	58	64	82·2	55·4	65·4	18·56	0·00	0·00
Leeds	259527	12·0	214	165	82·0	52·0	64·1	17·83	0·00	0·00
Sheffield	247378	10·8	184	137	86·1	51·1	64·6	18·11	0·00	0·00
Hull	130869	36·7	76	47	...	...	...	...	...	...
Sunderland ...	94257	30·5	70	35	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	73	7	83·0	52·0	62·8	17·11	0·00	0·00
Edinburgh	178970	40·4	141	73	73·7	52·0	61·9	16·61	0·10	0·25
Glasgow	468189	92·5	457	258	82·5	50·3	61·0	16·11	0·37	0·94
Dublin (City, etc.*)	321540	33·0	165	118	85·4	48·0	64·1	17·83	0·49	1·25
Total of 20 Towns in United Kingd'm	7209603	33·8	4964	3733	90·0	48·0	64·7	18·17	0·07	0·18
Paris—Week ending July 23	1889842	242	...	1160	...	...	...	...	...	...
Vienna—Week ending July 16 ...	605200	167	...	370	...	...	73·4	23·00	...	...
Berlin—Week ending July 21 ...	702437	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·988 in. The highest barometrical reading was 30·13 in. on Wednesday, and the lowest was 29·79 in. at the beginning of the week.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

A CLINICAL LECTURE ON PNEUMONIA.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital, Professor of Medicine in King's College.

We have recently had in the Hospital a succession of cases of pneumonia. I purpose to give you now a condensed history of one typical case, and to make it the subject of some physiological and practical comments.

R. W., aged 53, cellarman to a wine merchant. Has drunk rather freely, but less so since he lost his wife six months ago.

On June 11, while at work, he felt giddy. This was followed by a sensation of cold, and he had a violent attack of shivering. He went home, and in the evening he had a sudden fit, during which, his daughter says, he was quite unconscious, and foamed at the mouth, but his limbs were not convulsed. (?) The foaming at the mouth continued for about a quarter of an hour, and he remained unconscious for about twelve hours. When he recovered his consciousness he was delirious, and continued so until his admission into the Hospital on June 14—that is, three days from the commencement of his illness. Here it may be well to mention that, for three days before his illness, he had been working in a cellar which was very cold and damp, in consequence of its walls being covered by fresh cement.

On the 15th it was noted that he was delirious, and talked incessantly during his sleep. The skin was hot; temperature 103°; pulse 104; respiration not noted. He had cough with rust-coloured expectoration. There was dulness on percussion; bronchial breathing and bronchophony over the lower lobe of the right lung. The urine was high-coloured, and contained one-fifth albumen.

On the 16th the temperature had risen to 104·2°; pulse 112. He was perspiring, and still delirious. Physical signs the same. The urine less albuminous—one-sixth.

On the 18th the temperature had fallen to 99·2°; pulse 80. Return crepitation over the right lower lobe. As he continued restless and delirious, he was ordered to take 20 grains of chloral-hydrate every four hours.

On the 20th it was noted that he had slept better; and was much less delirious; crepitation and a creaking friction sound over the right base; temperature 100·6°; pulse 92. To take the chloral three times a day.

On the 22nd.—Slept well; continues to improve; no albumen in the urine.

On the 24th the chloral was omitted, and he was ordered to take a quinine and acid mixture. The signs of lung consolidation were passing away, but the friction sound was still audible.

On the 27th the friction sound had ceased, the temperature was normal, and he was convalescent.

It may be well to mention that until the chloral was prescribed he took no medicine. On his admission he had two ounces of brandy in the twenty-four hours; this was increased to six ounces on the 17th, and again reduced to four ounces on the 22nd. His diet was milk, beef-tea, and eggs.

Now, let us consider briefly the physiological rationale of the symptoms in this case.

I look upon it that before there was any local mischief in the lung, there was blood-poisoning. The precise nature of the blood-poisoning is doubtful, but it may probably have been due to suppressed action of the skin, consequent on the chilling effect of working in a damp cellar. The evidence of blood-poisoning consists in the occurrence of rigors, followed by an epileptic seizure, and this again by delirium. Rigors are probably a result of interrupted circulation through the spinal cord, and the immediate cause of epilepsy is a similar interrupted circulation through the brain. To some extent, perhaps, the delirium was a result of his somewhat intemperate habits—it may have been a form of delirium tremens. Another fact which points to blood-poisoning is the occurrence of temporary albuminuria. Again, the high temperature was probably associated with a morbid process in the blood.

One of the most important results of this blood contamination was the exudation into the lung, the pleuro-pneumonia. Then there quickly followed a fall of temperature.

I have frequently pointed out to you a similar sequence of events in cases of pneumonia, and I have shown you that the exudation into the lung is speedily followed by subsidence of the febrile excitement. The exudation into the lung may be looked upon as analogous to the eruption on the skin in a case of small-pox. In both diseases, *i.e.*, pneumonia and small-pox, a noxious product is thrown out of the circulation, in one case into the lung, in the other into the skin. In both diseases the appearance of the local symptoms is quickly followed by a fall of temperature and a diminution of the general febrile excitement. The structural changes in the lung and in the skin respectively, give rise to a fresh class of symptoms, and may in various ways cause distress and endanger life.

Now I have a practical object in directing your attention to what I venture to call the physiology of pneumonia which is not of traumatic origin. A right appreciation of the disease may enable you to prevent or to greatly mitigate the pulmonary symptoms. If we can catch the disease in the stage of the initiatory fever before the exudation process has commenced, I believe it is possible to prevent the pulmonary mischief by favouring exudation through other channels. In a large proportion of cases the exciting cause of pneumonia is suppressed action of the skin by a chill or other unknown atmospheric influence, and the main object of treatment should be as early as possible to restore the free action of the skin. This may be done in various ways—by a warm-water or hot-air bath, by packing in a wet sheet and blankets, and by the diaphoretic action of repeated small doses of antimony or ipecacuanha, with or without opium. This diaphoretic treatment is often successful in arresting a catarrh, and it may be equally successful in preventing or mitigating pneumonic exudation.

You will observe that vomiting and diarrhœa are amongst the symptoms which occur not unfrequently at the commencement of a febrile attack, which results soon in inflammatory consolidation of the lung. We may take a hint from these phenomena, and assist in diverting mischief from the lung by an emetic or by a purgative dose of calomel and colocynth, followed by a saline.

The success of this abortive treatment of pneumonia depends mainly upon its early application. It is too late to attempt prevention when the lung tissue is already consolidated by inflammatory exudation. But inasmuch as before the occurrence of the pulmonary symptoms the precise nature of the disease must be uncertain, the beneficial results of the treatment will remain doubtful in proportion to the completeness of its success. When the lung tissue has become consolidated by exudation there is no need for active treatment. Expectoration and absorption will in most cases more or less rapidly restore the lung to its normal condition. Pleuritic pain, when present, may be relieved by warm fomentations or poultices, or if severe by the application of three or four leeches. With reference to the pain of pleuro-pneumonia, let me give you one practical hint. The pain may be sharp at the onset of the disease, it may subside entirely when the lung is consolidated, and it may return with some severity when the physical signs indicate that the lung consolidation is passing away. The explanation I believe to be this:—The pleurisy which complicates pneumonia is almost always dry pleurisy; there is lymph on the pleura covering the inflamed lung, but there is little or no serous effusion. The friction of the inflamed and roughened pleural surfaces increases the pain, the consolidation of the lung lessens lung and chest movement, thus friction and pain cease, to return when, with the passing away of the pulmonary consolidation, the lung and chest movements again become free.

You will often observe that with a return of the pleuritic pain there is a return of the friction sound, which may have been audible during the early stage of pulmonary engorgement, but not during the stage of hepatisation. In the case which I just now read to you the friction sound was heard for the first time when the redux crepitation indicated that the lung consolidation was diminishing. Do not fall into the error of supposing that the redux pain and friction sound indicate a fresh attack of pleuritic inflammation. Lastly, let me say that the case to which I have referred is one of many in which the hydrate of chloral has had a most beneficial influence in allaying delirious excitement and procuring sleep, without in any way impeding expectoration or the healing process in the lung.

Corporation Liberality.—At the last meeting of the Court of Common Council amongst other liberal grants to charities not strictly Medical, the sum of 100 guineas was voted to the City of London Hospital for Diseases of the Chest, and a like amount to the Finsbury Dispensary, and fifty guineas to Queen Adelaide's Dispensary.

LECTURES ON ANALYTICAL PATHOLOGY

DELIVERED AT

Guy's Hospital

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

LECTURE III.

In the last lecture it was shown that there are two distinct kinds of overfulness of blood attended with slowing of its stream: the one caused by direct obstacle to the exit of the venous current—this we called mechanical congestion; the other caused by a lowering of those vital attractions of tissue for blood which compose an essential part of the powers of the circulation—this we called passive congestion.

The results of mechanical congestion we found to be four: dropsy, hæmorrhage, thrombosis, and gangrene, all these being traceable to the mechanical tension and stasis within the vessels. Passive congestion produces these four results just in proportion as mechanical tension and stasis accompany and proceed from it; but these results do not make the chief nor a leading feature in the effects of passive congestion. The proper consequences of this are degeneration and vulnerability of the tissue concerned.

The distinction between mechanical and passive congestion requires to be enforced, because it is often ignored altogether; and indeed it is very likely to be ignored by those who continue to speak of passive congestion as due to atony of the vessels. The assumption that is understood in the view which gives foundation to this term—namely, the assumption that a relaxation or atony of the vessels would lead to stagnation of the stream in them, is not true; for in paralysis (which is extreme atony and relaxation) of the vessels caused by division of the sympathetic nerves that supply them, the stream of blood therein is larger, freer, and more rapid, and the heat, etc., resulting is increased; so that the atony assumed to exist in passive congestion would, if it existed, produce an increased flow through the part, and not a passive lodgment in it such as we find, and the notion of passive congestion from atony of the vessels is wholly unfounded. Supposing this were otherwise, and that passive congestion were really due to mechanical obstacle from widening of the current, then the distinction between this and the other forms of mechanically-created congestion would be unimportant. But now, while we recognise that it is rather by the alteration or reduction of the vitality in a part that passive stay of blood-flow is occasioned, this knowledge directs us to the several sorts of vital change in the part in our remedial endeavours to set the circulation of the part into more active play. For instance, while we see the passively congested medulla oblongata of chronic epilepsy, or the passively congested stomach of some forms of chronic dyspepsia as only dilated vessels, we are bound in either of these widely-different cases to diminish the vessel's laxity by theoretically similar means of an astringent kind; and we are led off from aims that favour the use of means to excite or control or modify the vital actions of the proper elements. But in practice we all the while find that methods suited to the proper actions of diseased parts are those which we are compelled to use. So it is that a proper theory of passive congestion conforms to and furthers practical therapeutics.

Now when we come to consider the state of overfulness of blood, accompanied, not by stagnation, but by excess of flow through the part, we shall find here also, as in congestion with stagnation, that we have two distinct, and indeed widely different, conditions, one of which depends on an expanded state of the vessels, which allows a freer flux—this stands opposed to mechanical congestion—while the other depends on a state of parenchyma, which creates greater attraction for, and therefore a fuller current of, blood in it; this stands opposed to congestion from deficient attraction.

In general the term active congestion signifies overfulness of the vessels, with greater activity of the blood-flow. But the general idea of active congestion has been taken from the first stage of inflammation. What is meant by it is that stage of inflammation in which the vessels show more active and larger currents of blood, while as yet the so-called products of inflammation—lymph, pus, etc.—have not made their appearance. And to this first stage of inflammation the term active congestion is so devoted that I don't think it will be possible to disengage it.

But there are other states besides this early stage of inflammation, which show us an active current in enlarged vessels; such states as that produced in the side of the head and neck of a rabbit, on whom section of the cervical sympathetic has been practised; also the act of blushing, and some other conditions. Now in all these states there is fully present the active flow of blood, which forms the character of active congestion as it was always understood, and yet there is no inflammation in any of these states. Before the sympathetic section experiment was known, the phenomena of blushing made a great obstacle in the way of those who traced inflammation to the results of active blood-flow. But since this beautiful discovery we can no longer overlook the truth that flux of blood, which is the simple constructive idea of active congestion, is not the same thing as the first stage of inflammation. And we have to come to some conclusion regarding the discrepancy between blushing and the inflammatory flux. Our conclusions will have an important bearing on the view we shall take of the origin of the inflammatory process.

In truth, the sooner we give over the habit of proceeding to the study of inflammation from the point of view which so-called active congestion affords, the better for our knowledge of that process. The old plan of passing from active congestion to inflammation was by no means according to nature. To obtain a good knowledge of inflammation, it is now-a-days requisite that we should take up several distinct kinds of inquiry, and add their results together. In that way, although the steps of our progress will not be so consecutive in a straight line, but may involve some returning and reconsideration, yet we shall have the advantage of obtaining a view of the process that will leave less of its real nature unincluded in our knowledge.

I propose that we consider the distinct kinds of facts on which our knowledge of inflammation is grounded severally, and touch upon the arguments that have been, and are, raised upon them, as they come to concern us in the progress of our statement.

Now we shall learn that four classes of facts or methods of inquiry throw light on the nature of inflammation.

Firstly. The state of blushing and the results of sympathetic paralysis furnish us with two important conclusions—namely, on the one hand that relaxation of the vessels in a part leads to a larger stream through the part, with greater heat and sensitiveness of the part, and on the other hand that all this does not constitute nor lead to inflammation.

Secondly. The observation of transparent tissues with the aid of the microscope, as in the experiments of irritating the frog's web, or exposing its mesentery to the air, etc.—these experiments show that the same phenomena as those of sympathetic paralysis are included among the results of the irritation, and next, that much more besides these fluxion phenomena are present, especially that stasis occurs at the focus of irritation.

Thirdly. The observation of sections of inflamed tissues shows very important additional matter. It shows that outside the vessels, in parts little capable of observation by the other methods, there is great activity, multiplication of cells, escape of white blood-cells from the vessels, augmentation of the amorphous solid and fluid intervascular matter, and transformation and removal of the original parenchyma, together, if the inflammation be intense, with entry of blood-cells into the lymphatic vessels, and perhaps entry of pus-cells into the venules in the same way as the blood-cells passed out of them. Some of these points, however, require further investigation.

Fourthly. Naked eye examination of inflamed parts shows the course of the inflammation in plan and pattern, and the limits which in its several forms are set to its intensity, as well as the influence on its origin and course which the nerves exhibit in some cases. It teaches that all inflammation is not the same inflammation. Some forms are as it were forcibly held back from pus-formation, to which others are allowed to hasten.

Now no theory of inflammation is complete or satisfactory, which overlooks any of these several and various results of observation. We will consider each of them more carefully.

First. As to the results of sympathetic paralysis seen in experimental section of the nerves, or in blushing, or in some morbid states characterised by temporary local hyperæmia. For these results we will use the term vaso-paralytic fluxion. When the cervical sympathetic is divided the corresponding side of the head and its appendages become hyperæmic, the greater quantity of blood passing through them being attended by greater heat and sensitiveness of that side. Evidence that the state is not one of mere passive lodgment is given by the elevation of temperature, and especially by the persistence of the elevation,

so that the thermometer will show 10° greater heat on the injured side two days after the operation, and this difference will remain marked for months. But inflammation in the flushed and hot parts does not arise. A blush caused in a moment by shame, or following the paleness of a shock of fear offers us the like heat and redness without inflammation, but we sometimes have better opportunities of seeing this kind of occurrence in examples of sympathetic neurosis. Thus, not long ago I saw a young man, who at tolerably regular intervals was troubled with an intense reddening of the conjunctiva of his left eye, which lasted for a day, and occasioned him a great deal of annoyance on account of the disfigurement it induced; yet he had no painful sensations to complain of, and but for the vaso-paralytic flush he would thought himself well. It was, however, clear that the same side of the face and ear was hotter and redder than the other, and there was more perspiration on that side. This occurrence had afflicted him for months, and often had recurred, yet there was never any inflammatory state accompanying it, and it used to subside rather suddenly. Again, after fractures of the spine, it is common to find the temperature mount up to 109° or 110°, and this when there is very diminished breathing, and no corresponding rapidity in the heart's action, as in febrile pyrexia, while careful post-mortem examination has shown that no inflammation such as would give rise to fever has existed. Here it is likely that a general vaso-moter paralysis from injury to the sympathetic nerve is the cause of the increase of heat.

In these cases, we have more or less pure and evident examples of active flow of blood in distended vessels sustained during considerable intervals, and they show us what is and what is not the result of such wide and free current in the vessels. The cause and the mechanism of the increase of size in the vessels we cannot doubt to be respectively the paralysis and the yielding of the muscular fibres in the walls of the smaller arteries. We may lay down this proposition—that a widened state of the vessels or vaso-paralytic fluxion produces increase of temperature and redness, but not inflammation. Now, in considering truly inflammatory phenomena, we shall find that acute inflammation does include such a vaso-paralytic fluxion, but that any degree of true inflammation includes more. To prove this, the second series of facts must come under consideration—namely, those that are witnessed in transparent parts under severe irritations. These are easily seen, but described with difficulty; every one who has not seen them should make the experiments and observations for himself, watching the whole process long and carefully. Shortly, this is what you will see: The effect of severe irritation on the frog's foot is to cause a sudden and momentary contraction of the capillary arteries, which is at once succeeded by a dilatation of them and a more active stream through the part, so that a larger volume of blood is returned from it. If, however, you watch the seat of chief irritation, you will observe that there the movement of the blood is slower, or an irregular oscillation or a stasis of the blood occurs, and this you will see, by observing the arterial twig which supplies the directly irritated spot, is due to a contraction of that twig. The capillaries in this stagnant spot often show irregular bulging and contractions in a very striking way. But it is in the vessels around the irritated spot that the dilatation and the active stream occur, so as to lead to that enlarged current which continues to flow through the veins of the part. The blood which so comes away in larger volume differs in character from common venous blood. When the venous blood from the inflamed limb of an animal is compared with the blood from a sound limb, it is found to have in it a larger amount of oxygen than is proper for venous blood, so that its colour is brighter. This appears to result from the passage of the vaso-paralytic stream in greater volume than the textures can use, so that it goes through partly unexhausted. Very striking evidence of the great enlargement the vessels undergo is brought out by injecting the vessels of inflamed parts, and comparing them with the vessels in corresponding healthy parts.

The cause and mechanism of this dilatation and fluxion have been the subject of much controversy. It has always been believed by some that the vessels actively dilate. This active dilatation of the vessels is the only meaning of the old phrase "action of the vessels" which is now apprehensible. It is difficult to conceive by what kind of machinery the vessels could actively dilate, but I should tell you that several distinguished physiologists at the present time hold that some active dilating power exists in the vessels, and is called out by inflammation; and perhaps we have more yet to learn about the mechanism of dilatation of hollow muscles. Here, however, is a view, the sufficiency of which you may judge for yourselves. It is one which is gaining adherents, and which has the advantage of being supported by analogy with well-established facts in the history of the nervous system. We know that the action of the pneumogastric and of the splanchnic nerves reduces the activities which depend, in certain organs they govern, on the sympathetic nerves in those organs, the heart and the intestines respectively. And it is known that the activity of the vessels' muscular wall depends on the sympathetic nerve, and hence arises a probability that an excess of action on the part of the spinal nerve when irritated by inflammation would induce a reduction of the power used by the sympathetic in giving tone to the vessels, and thus would lead to the dilatation of these.

Whether this theory, which has in some form been long before the world, be true or not, as a view of the cause of the vaso-paralytic fluxion that surrounds a seat of inflammation, it is certain that such fluxion, however produced, is not inflammation, and we may pass by with little notice the attempt to explain the occurrence of inflammation through the consequences of this fluxion. We have seen that inflammation does not follow when the fluxion is produced in a pure form. No doubt too much attention has been given to this phenomenon in the history of inflammation, with which it has only a casual connexion. The essential condition of inflammation as it regards the vessels, is one of a wholly opposite sort—namely, stagnation.

For a long time much effort was given to show that somehow the fluxion would lead to the stagnation; but stagnation would not occur through the vigorous influx of blood unless there is a hindrance to the passing of it out. Now no one has been able to shew a cause of such hindrance, and to borrow a simile from Professor Lotze, "they who would explain thus congestion, undertake a task as thankless as that of the daughters of Danaus. They cannot produce stoppers to hinder the flowing out of the blood so vigorously pumped in." There is nothing observed in these experiments on transparent tissues that could afford obstruction to the exit of the blood, and hence other explanations have been devised to account for its stasis. It was known that the corpuscles of extravasated healthy blood show an adhesive tendency, which makes them run together in columns or rouleaux, and this adhesive tendency was supposed to be increased in inflammation, so that the blood-cells ran together into masses that appear red homogeneous columns, and at the same time went to the wall of the containing vessel so as to do away that "sluggish" clear layer which normally keeps the red corpuscles away from direct contact with the capillary artery. In addition to this augmented adhesiveness, threads of fibrine were said to form in the blood, and it was urged further that the escape of the fluid parts of the blood through the vessel's wall, which occurs in the exudation that accompanies stasis, would thicken the blood within the vessel and reduce its mobility. Thus adhesive, half clotted, and inspissated, it was natural enough that the blood should stay and stop in its course. But with regard to all this we must see that the exudation, which is said to cause the inspissation, needs itself the obstruction to give rise to it, and we must not set exudation and obstruction thus mutually to explain each other. The fibrine threads are doubtful, and Mr. Lister has nearly proved that the adhesion of the blood discs in inflammation which does not seem to be greater than is present in healthy blood —is probably of negative origin, and that the corpuscles run together in inflammation for the same reason that they run together when drawn for observation on a glass slide. In either case they do this from the absence of the influence of the living tissue around, which when the part is healthy draws on the corpuscles in a regular stream by the "capillary force" which we have before alluded to. I think there is no doubt that this is the true view, and it directs our attention to the third sort of observations—namely, those that teach us what is meantime going on in the parenchymatous or intervascular tissues of the part.

The necessity of assuming a power on the part of the parenchyma upon the blood stream as the efficient cause of the phenomena of inflammation has been proved conclusively long ago. Certainly, it never was proved more conclusively than by Dr. Alison thirty years ago, or by Mr. Simon twenty years ago. Both these authors show very clearly that the conditions in the blood and vessels do not suffice to explain inflammation, and they anticipate the very expression of the cellular pathology. Thus, Mr. Simon says—"The inflammatory process (like most of the vegetative or nutritional changes in the body) commences independently of nervous influence, as a change primarily manifested in the organic molecules of the part, and related to their ultimate conditions of life and growth." Yet

undoubtedly these strong ideas of the primary and essential act of the parenchyma in inflammation did not take hold in this country among the members of the Profession. I think this must have been through the larger influence of Mr. Paget's work on Surgical pathology. You will recollect, in treating of inflammation (I, of course, assume that every one of you is reading those admirable lectures), Mr. Paget adopts this plan. Having stated that the conditions of healthy nutrition are four—namely, a normal circulation of the blood, a normal state of the blood, a normal condition of nerve, and a normal state of the part—he describes the phenomena of inflammation as being derangements of either of these four conditions severally. Meantime, the view of nutrition he favours is one that supposes the blood to actively, rather than passively, feed the parenchyma. This plan developes into an admirable account of inflammation, but it does not fall in the scope of it to state specifically which of the incidents observed is the inflaming textures is the primary and causative one. The impression the author leaves is in favour of the idea that the changes of the blood and circulation are frequently the prime causes, and as he treats the products of inflammation as effusions caused by the inflammation, the prevailing idea, on the whole, is that inflammation is mainly a blood and vessel change with results produced in the tissue by effusions from the vessels.

In Rokitansky's work too the same view of nutrition, as a gift of the vessels rather than an assumption by the tissue, prevails throughout, although I could quote you many passages to show that he too allows a texture force.

The facts discovered in the careful study of sections of inflamed tissues come now to aid us. And it is in this direction that the greatest modern advances have been made in the study of inflammation. And we now think that we are in possession of a knowledge of the seat and of the nature of that force to which Mr. Simon pointed.

Ever since Schwann's discovery of the cellular structure of animals, there has been apparently enough said about the cells of which the body is composed. But it is curious to observe haw long a time it was before the true import of the cell and of its nucleus as the continual seat of the self-nourishing power of the parenchyma was arrived at.

The opinions of Rokitansky and of contemporary writers can be rightly judged of only by noting how very imperfect was their conception of the cell theory. It was in 1838 that Schwann gave out the "cell theory." But he knew nothing of the division of cells. This was first observed by Remak as occurring in the white blood-cells of the fœtus. Now it has been a very long period that has slipped by before the vast extent of the light that should come from the cell theory became evident.

True, Schwann said "everything developes out of cells," and in a way this was believed. But the origin and maintenance of these cells was attributed to properties in the juices thrown out from the blood so that the cells which developed all things were themselves bred by equivocal generation out of the juices from the vessels. Cell life was a sort of ceremony. And thus the liquids still had all the lead and all the power in the processes. Pathology was thought to consist of the doings of vessels and juices. The cell theory and what it lighted were scarcely seen.

To see how true this is, take the words employed to signify the actions in the tissues which occur in inflammation and other formative processes. Rokitansky, Paget, Wilks—indeed, all writers of this period — always employ these words in describing every kind of formative change. They say exudation, effusion, infiltration, deposit, when meaning the matter new formed in the diseased tissue. Now, exudation means that which is sweated out, and effusion that which is poured out, and infiltration that which is filtered in, and deposit that which, already being formed, is lodged at rest. The ideas that perforce must be current under such a language—for words are as much masters as servants of the mind—must be mechanical, and, as far as the deposited matter goes, passive; while of necessity hearing such language applied to tumours and chronic inflammatory formations you think of the whole set of these events as you think of some swollen muddy stream overflowing its banks and settling down silt where its waters lie. Under such terms no one could recognise in the so-called deposit the seat of a living active power, operating on principles of generation and growth, and in truth more resembling a reed-bed than a mud-bank.

The cell theory, as we now apprehend it, was dormant until quite recently. The law of *continuity of organic forms* which Harvey enunciated as *omne vivum ex ovo*, was not extended into the components of the body, and little interest was felt in the very origins of diseased formations, because all alike were assumed to be a sort of settlement out of juices. Schwann made cell-formation a kind of crystallisation *plus* permeability, and Mr. Rainey even went so far as to create beautiful little artificial cells, very deceptive, being provided with an artificial nucleus. He mixed thick gum and lime-water, and carbonate of lime came down on exposed glass slides in a form so like cells that they were undistinguishable, and you took them for cells, just as at Madame Tussaud's you stand before the old lady, wishing her to indicate by a movement on which side she would prefer to pass you, until you see she is made of wax, when you conclude she is not an old lady, though very like one—indeed, at first undistinguishable. It is of course exactly the same with Mr. Rainey's cells—they were very perfect little models.

The cell theory, as apprehended in this way, is a very lifeless conception, dead from the birth. You wonder why all this trouble to make a number of little cysts should be taken at all, and the form of the matter becomes only a matter of form.

But since that time, and very gradually, a conviction has been spreading, and pathologists nearly all now believe, that the history of cell development, and the powers at work in it, are not to be thought of in that way. Instead of approaching the consideration of the process with the idea of the mere aggregation of granules to make shapes in a rough crystalline sort of way that you can imitate like Mr. Rainey did by a little judicious arrangement, pathologists now come to the history of the cell with a belief that it is a history of the same nature as the history of reproduction in living creatures. As Virchow states the case, not only is Harvey's dictum, *omne vivum ex ovo*, to stand, but the same relation extends to every cell, and we say *omnis cellula e cellula*.

Pathologists have always had an ultimate longing after a unity of view, some one thing among the many parts of the fabric to which we may look for the unity and converging point in our too wide field of inquiry; and this law of cell-development is so simple, and by its continuity with the first act of development in all animals is made so universal, that nothing can be wished or thought of which would better embrace and gather together every living act into the same likeness. The whole of the processes of life are the manifestations of forces which have this in common, that they are acted under the visible form of a concentric sphere. The most complex of all processes is brought down to the simplest of all figures.

It was when the import of the nucleus became clear, and the continuity of organic forms was extended to the tissues, that a keen interest arose in the study of elementary texture changes. Virchow said *omnis cellula e cellula*, and everybody now believes it, and the processes of the life of cells make up the best established knowledge in pathology.

But we must not, therefore, conclude that all pathology is to be merely cellular for the future, any more than we think of the body as a mere mass of cells. A merely cellular view of life is imperfect. We must wonder at the simplicity and unity it gives to the most complex life; but the tissues evince other than a merely cellular nature. Some combining influence makes the cells coalesce to form tubes or interlink by processes sent off from one to others. And with these combining processes arise new powers in the tissues so constituted, and these powers, under the form of contractility and of the several varieties of nervous force, come to acquire control over the actions of the local cells. The laws of combination, and of the influence of remote parts on localities, and of the pressure and change of quality in the blood arise, and we pass from the consideration of the characters and powers of the units to the new characters that are shown when their forces are aggregated into masses and guided in special directions, just as from the study of morals in the individual man we pass on to the quite different science of ethics when the same questions apply to masses of people.

Indeed, the question whether cellular pathology, or vascular pathology, or nervous pathology is the correct pathology in inflammation, is very like the question one might hold concerning one of those unhappy accidents which we hear of at theatres when an alarm of fire arises, and the people, in their rush to escape, trample poor wretches to death. One might ask whether the catastrophe is to be set down to the individual wills of the persons who exert the pressure, or whether it should be set down to a power among the mass of them which was really beyond the wills of the individuals.

Now, in a way, it certainly is the act of each individual which was added to the rest to raise the terrible sum of pres-

sure to destruction. Yet the individuals were so very powerless as to the control of the rush and irresponsible for its origin that we have to recognise a new power when considering or dealing with the misfortune. It would be silly to try and stop the affair by any persuasions to the individuals, and it would be unjust to visit any of them with punishment for the damage to life and limb that was caused. If we are to gain any power over the crowd it must be by apprehending and employing other laws altogether; we must find some way of swaying their collective fears by gaining a hold on their common faith and trust. Fear has become *panic*, and the laws and results of panic, its origin and its quiescence, are wholly different from the laws and course of fear in the individual. Yet the fears in the individuals are the only things that exert any force to make the substance of the panic. And so when from any irritating cause applied to a tissue an inflammation is set up it may be similarly asked, is it to be ascribed to the irritations of the individual cells or did the mass of these irritations swell so overwhelmingly that new laws arose, and the individual cells were left out of account? Their vital forces drawing blood in such amount that these forces could no longer govern the surplus so that stagnation and pressure outweighed the vital force and conditions of filtration and exudation, or deposit, or what you will call it, arose, and perhaps drowned out the vital force that at first had been excited, until it perished altogether under the consequences of its own desires, like the Sabine lady under the weight of what the Roman soldiers had on their left arms.

Indeed, a very little consideration must soon show that a pathology that is merely cellular cannot embrace all the diseased changes in the body. We cannot refer all the morbid processes in a part to the cellular elements of that part. We require to make due allowance for the results of the massing of their common action, and for the influence of other parts transmitted by the nerves, or carried in the blood and lymph streams.

A mere cellular pathology could only exist in a sponge, or some other simply cellular organism, but how can actions of individual cells suffice to explain processes in muscular fibre, for instance, or in nerve-fibre or vessel where the original cells have lost their individuality and blended together? The organism arises out of, and is founded in, cell-action, but these blend for special purposes, and gain some one and some another special power, and so the simple becomes complex. We can no more understand the organisation on the footing of the several cells, than we could comprehend the action of an army by studying the powers of private soldiers.

Indeed, when come to the more practical department of pathology, that concerns itself in morbid anatomy, we will have, so to speak, to leave the cellular pathology under the microscope, and rejoin Rokitansky and Dr. Wilks, with their descriptions of redness, and brownness, and sliminesses, and softness, and yielding of milky juices, and squeezing out of turbid liquids, and generally with naked eye appearances of mechanical changes. This is the directly applicable part of pathology, which we require in the law courts or anywhere in considering the causes of death; for every disease must in some way become mechanics before it destroys life; and as people mean by life the beating of the heart and the heaving of the chest, it is the proceedings which mechanically stop these mechanics that we are directly required to learn and show.

And these more superficial—that is, near and practical—characters of disease, we know nearly perfectly; and I think we must be conservative and cautious in dealing with any attempt to alter the names and arrangement of these post-mortem changes. So far the older pathology is continuous with the newer. And the diseased changes described by Morgagni and Rokitansky will serve to help us now.

But, in the study and comprehension of the changes in the structural elements of tissue, we shall soon see how great a light is thrown by a knowledge of the signification and action of the *cell* and its *nucleus*, in other words, of *Cellular Pathology*. If you try to follow the old imperfect cell-view you get wearied; it is positively tiresome to follow the exudation in its various coagulations and in filtrations, and the influences exerted by the neighbourhood of the textures, and the fibrillation of its substance, and its chemical changes to fat and pigment —and all the while to have before you the liquid, taking the trouble to make itself into cells. The thing is intricate and meaningless, and you feel inclined to repeat the often quoted wicked wish of that ancient king who was so bored with the Ptolemaic system of the heavens, that he wished he had been consulted, as he felt sure he could have set them up more simply and sensibly.

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS ON THE TEMPERATURE OF DISEASE.

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(*With a coloured Diagram.*)

VIII.—CHRONIC PNEUMONIA—STRUMOUS PNEUMONIA.

The temperature of chronic pneumonia varies according to the circumstances under which it is developed (as, for instance, whether it is complicated with the presence of tubercle), and with the pathological condition assumed by the lung itself as a result of the disease.

The temperature of chronic pneumonia associated with tubercle is a temperature that belongs at least as much to the growth of tubercle as to the pneumonia; and on the other hand, the form of chronic inflammation that terminates in abscess is associated with a higher temperature than is common in the forms that terminate in the granular and grey induration of Dr. Addison.

We distinguish, then, as the subjects of this paper:—

1. Chronic pneumonia, terminating in abscess—the uniform albuminous induration of Dr. Addison.
2. Chronic pneumonia terminating in grey induration, which also may soften down into abscess.
3. Chronic pneumonia terminating in granular induration: an apparent link between ordinary pneumonia and tubercle.
4. Strumous pneumonia, which is a chronic pneumonia occurring in a tuberculous subject, and may be preceded or accompanied by tubercle proper.
5. Chronic phthisis, which differs from the preceding more in degree than in form, but in which the growth of low cells is much more marked than in strumous pneumonia. This form, too, is constantly associated with ulcerative inflammation of other organs, especially of the mucous membrane of the bronchi, the larynx and trachea, and the intestinal canal.

It is interesting to trace the gradual chain of connexion between these different forms as far as it is shown by morbid anatomy, with simple acute pneumonia at the one end of the scale, and chronic phthisis at the other. The morbid anatomy of the lungs is, however, the only connecting link; with whatever similarity in appearance chronic pneumonia with grey or granular induration may be connected with strumous pneumonia, or even with chronic phthisis, there is needed for the production of the latter a certain something, impossible to express in chemical formula, difficult to express in words—a tendency, a diathesis, a condition of blood probably, which leads not only to the pulmonary lesion, but also to various pathological appearances in other organs. It is not common to see the members of a family, one after another, subject to acute pneumonia almost as a matter of course; whilst this chronic pneumonia associated with tubercle, and resulting in the breaking down of one or both lungs in successive members of a family, at or about the same age, is as much an indication of something besides mere local inflammation, as are the attacks of gout or rheumatism. In one word, strumous pneumonia and chronic phthisis are forms of chronic pneumonia plus tuberculosis.

Case 55 is an example of chronic pneumonia, breaking down eventually into abscess. On admission the man was in appearance not unlike a person in fever. He had bronchial râles all over both lungs, with some dulness at the apex of the left. He had been ill five weeks. Four days after admission he had a little hæmoptysis, and during the last week of life the breath was as fœtid as in gangrene of the lung. At the autopsy the upper lobe of the left lung was found entirely broken down into a vast cavity, the anterior boundary of which was composed of thickened pleura, and a thin portion of indurated lung. This cavity was lined by a membrane, and was partly filled with a stinking grumous fluid, containing shreds of lung tissue. The upper portion of the lower lobe of the left lung was in a state of red hepatisation. No tubercle anywhere. During the last thirteen days of his life, whilst in Hospital, the temperature was tolerably regular, varying from 100° (37·8°) to 103° Fahr. (39·5°), but never sinking below 100°. The pulse was never high until the day before death; the respirations about 26 in the minute until the last four days. Perspiration

was very intense all through, and the urine showed no diminution of chlorides.

In another case, of which the temperature is not tabulated here, but which in this respect was very like Case 55, varying from 100° (37·8°) to 103° (39·5°), the right lung was found solid throughout; the lower half of the lower lobe was a mere bag, the anterior portion being formed of little more than a thickened pleura, and contained a large mass of putrilaginous matter, highly offensive. The interior of this cavity was lined by a membrane. Its contents were composed of blood, degenerate cells, exudation globules, and a multitude of acicular crystals. Above this cavity were many similar ones, of smaller size; some of which were filled with similar material, others with pieces of fœtid brown lymph. The lung between the cavities was in a state of red hepatisation. No tubercle anywhere.

This man was much emaciated, had had winter cough for several years, and had the curved nails so often seen in chronic phthisis. The regularity of the temperature, free from sudden and excessive fluctuations, with the fact of the morbid lesion being confined to one lung, assisted the diagnosis.

If, however, the preliminary inflammation does not result in abscess, the temperature for some period of the disease is hardly above the normal point. Not that the commencement of the disease differs materially in respect to temperature from the more acute forms. The temperature reaches a high point at first in these chronic cases, and may either follow the usual course, subsiding at the end of the first or towards the beginning of the second week, and may then rise again to a less elevation, and with various fluctuations keep somewhat above the normal line; or it may manifest no increase, or only the slight nocturnal exacerbations of half a degree Fahr. during a period of several weeks, whilst the lung remains in much the same state, except that it becomes harder, drier, more dense, and more pigmental. Or again, high evening temperatures may alternate with great collapse. Wunderlich says that the daily maximum often occurs near mid-day, and that then in the evening a remission succeeds, which readily degenerates into collapse; and to this succeeds a second smaller exacerbation at midnight.

At any period in the course of the disease an entirely fresh portion of the lung may become implicated by acute inflammation, and this will always be evidenced by fresh elevation of temperature; but it is marvellous how long these cases of chronic pneumonia will go on without any pyrexia after the first week, or only with the feeble rise of the thermometer to 99° Fahr. (37·2°) in the evening.

Strumous Pneumonia is very closely connected as regards temperature with that form of chronic pneumonia in which with very slow progressive inflammatory action, the temperature is always some degrees higher than the normal point. Its closer connection with tubercle, however, is traceable in the greater irregularity of the thermometric fluctuations. This irregularity is seen to some extent in Case 56, much more remarkably in Case 57. In both these cases the disease was progressive. In Case 57 it was rapidly fatal, having been confined to one lung, and occurring in a member of a highly tuberculous family. The man, aged 33, had been ill for eight months, and had followed the occupation of a miller; it is not improbable that the first starting point of the pulmonary lesion was the irritation of the particles of flour, but the course of the disease, and the high temperature developed, were due to the tuberculous tendency.

I am inclined to believe that chronic strumous pneumonia is always progressive. One section of lung after another becomes implicated, and as the disease progresses, the portion first attacked may either break down into an abscess or a chain of abscesses, or may no longer persist in an active condition, and become grey, pigmental, indurated.

Case 58, however, is an example of chronic pneumonia associated with tubercle, in which the temperature followed a somewhat different course. Ellen C., aged 40, had been ill seven months, and was admitted with a temperature of 103⅔° (39·6°). On the second day after admission the thermometer fell to 101° (38·3°), and with occasional evening exacerbations of small extent, this subsidence gradually progressed, until on the 17th day after admission she died with a temperature of 97⅔° (36·4°). The woman was a terrible drunkard, and this fact may have had something to say to the apparently exceptional course of the temperature. After death the whole of the upper lobe of the left lung was found condensed, breaking down in places into cavities (chronic pneumonia). The upper part of the lower lobe was in the same state. Bronchial tubes very red and full of mucus. Right lung contained spots of grey tubercle in upper lobe. Notwithstanding the post-mortem appearances the chlorides were in normal amount whilst the patient was under observation.

The connection between chronic pneumonia associated with tubercle and chronic phthisis is a very close one anatomically. The cell-growth in the lungs is extremely similar; the temperature and general symptoms are very similar also. In fact, the two conditions differ rather in degree than in essence, and both may generally be diagnosed from non-tuberculous chronic pneumonia by their manifesting greater irregularity and greater intensity of the daily thermometric fluctuations than we usually find in the latter. These will be seen much more decidedly in acute tuberculosis, and the similarity in this symptom is a strong connecting link between acute tuberculosis and chronic phthisis.

The Cases 59 and 60 tabulated here do not show this irregularity so well, as the temperature was registered in the evening only; but this irregularity has been continually remarked in cases in which the temperature has been noted only for a few days in succession; and most of the cases tabulated in Dr. Ringer's valuable book on the temperature in phthisis show the same phenomenon.

The normal temperature in chronic phthisis is positive proof of the active symptoms being in abeyance—is positive proof, therefore, of the non-extension of the pulmonary inflammation, and of the non-activity of tuberculous cell-growth. As long as the temperature continues normal the disease is making no progress, notwithstanding the character of the auscultatory sounds, the thermometer being a far safer guide than the stethoscope, whilst a continued elevation of temperature, even to the extent of 1° Fahr., in the evening, is a manifestation of progressive mischief, even if the other physical signs and general symptoms may seem to be satisfactory, although these often correspond with it; whilst the intensity of the abnormal heat is a fair measure of the intensity of the evil as manifested by the pathological condition; and, as Dr. Ringer says, "fluctuations in the temperature indicate corresponding fluctuations in the severity of the disease."

There is a general correspondence between the pulse and the temperature in chronic phthisis. A high temperature is usually accompanied by a rapid pulse, but this rule is, of course, subject to the ordinary exception that the pulse will be rapid in debility even when the temperature is low and the progress of the disease temporarily arrested. The respiration, however, follows no such rule. The disease may be making rather rapid progress and yet the respiration may be but little, if at all, above the normal rate. This is particularly the case when only one lung has become attacked gradually, whilst the other is abnormally active in the work of respiration. Very frequently, however, a high temperature and hurried respiration are coincident.

Death occurs almost universally with considerable elevation of temperature in these cases of chronic phthisis, and that, too, with every variety of general symptoms. The temperature of the fatal condition is equally elevated, whether the patient dies in the ravings of phthisical mania, or from slow suffocation from the diminished breathing area, or from rapid wasting and non-assimilation of food, or from tuberculous ulceration of the bowels, even where considerable diarrhœa has occurred. But cases are occasionally met with in which, with diarrhœa and intestinal ulceration, the fatal temperature will be one of collapse. These cases are usually persons who have been the subjects of chronic phthisis for several years.

THE use of arsenic in a very large number of skin diseases has led to a conclusion that its specific effects upon such diseases have been greatly exaggerated. In a large number of selected cases, no benefit has been apparent. As a tonic in neuralgia, rheumatism, and ague, it is an excellent remedy. It appears to have some retarding influence upon cases of leprosy at an early stage. Amongst skin diseases herpes zoster or shingles is curiously rare, only one case having been seen during the last five years out of some thousands of instances of cutaneous disorders, so disgustingly common in China. The use of flannel probably aggravates the frequency and character of the cutaneous affections of thin-skinned Europeans. Psoriasis, lepra, and pityriasis are exceedingly common. Constitutional remedies have little influence upon these obstinate cases, and the most successful plan has been to paint the patches over, and a little beyond the edge of the spreading disease, with strong iodine paint, a most useful application in Chinese Hospital practice.—*Annual Report of the Hankow Medical Mission, by F. Porter Smith, M.B.*

DISEASE IN SICILY.

By W. H. CORFIELD, M.A., M.B., M.R.C.P.,

Medical Fellow of Pembroke College, Oxford; Professor of Hygiene at University College, London.

HAVING been favoured by Dr. Mario Ronsisvalle with the Statistical Report of the Medical Hospital of Catania(a) (*Rapporto Statistico, sugli ammalati ammessi, guariti e morti nell' Ospedale S. Marco di Catania, negli anni* 1866-7), and feeling sure, as I do, that the best way to study the advantages or disadvantages of any place as a health resort is to observe what diseases are most common there, I have drawn up the following short summary of the report.

To give an idea of the size of the Hospital, I may say that in 1866 the number of patients admitted was 1110—to wit, 308 soldiers, 625 civilians, and 117 women—and in 1867 the sum total was 1146. The Hospital, which was originally intended for fever cases, and is still called the Fever Hospital by the townsfolk, is an old dilapidated building, with badly ventilated and not very clean wards, and beds too close together, affording in all these points a striking contrast to the nicely arranged and well-aërated *Ospedale Gesù e Maria* at Naples. As a School of Medicine, Catania is no longer renowned; its day is gone; but as a winter residence it is sometimes chosen, and its name will be better known after next winter on account of its being the head quarters (if I may so call it) of the solar eclipse.

In the tables of both years the acute diseases largely predominate, in accordance with the original designation of the Hospital. Intermittent fevers are, as might be expected from the contiguity of the great, badly drained, plain of Catania, very common, no less than 320 cases of them (256 quotidian, 41 tertian, 10 quartan, and 13 "pernicious") having been admitted in 1866; while in 1867 there were 314 cases (192 quotidian, 91 tertian, 12 quartan, and 19 "pernicious"), besides 3 cases of remittent fever: these numbers do not include the chronic derangements of paludal origin (discrasie palustri), which amounted to 44 in 1866, and to 42 in 1867. Intermittent fevers are especially common from July to November (inclusive), and in 1866 they were unusually common in January. Of deaths, 4 took place from "pernicious" intermittent fever in 1866, and 4 in 1867, "from having come too late to the Hospital;" and of the formidable chronic derangements 4 died in each year, having come to ask for Medical aid, "when this cachexia had already caused such grave alterations in the blood, in the spleen, and in the liver, that any amelioration was no longer to be hoped for; in fact, effusions of serum had occurred in the subcutaneous cellular tissue, and in the serous cavities, as also passive congestions, whence afterwards death followed."

Next in order of frequency among the fevers, we have ephemeral fever (90 cases in 1866, and 75 in 1867), about 80 per cent. of the patients in each case being soldiers, who are especially liable to it from their frequent exposure during the hot summer months, to which cases of this fever are almost entirely limited; of female cases of it there were only 2 in 1866, and 3 in 1867.

Then come gastric fevers, also especially in the summer months, and brought on by surfeiting with fruits. Typhoid fever does not figure largely, but I suspect that many true cases of it go down under "gastric" fever. Rheumatic fever, it is to be noted, is common, and especially affects the summer and autumn months, being particularly frequent among the soldiers, while chronic rheumatism is second only among the "discrasie" to the paludal one; at any rate, as far as 1866 is concerned. The eruptive fevers do not appear to be common; of small-pox, however, there were 14 cases in 1867.

Syphilitic cases are not numerous; but we must not therefore conclude that they are rare in Sicily. The great majority of them are doubtless treated as out-patients at both the Hospitals; in fact, as far as I could gather from inquiry, venereal diseases are very widely spread there.

Among "inflammations" (the next heading in the report), those of the respiratory apparatus are predominant, as is the case on all the Mediterranean shores, as far as I have observed; they are, of course, most frequent during the winter and spring months, and are caused by exposure to the very rapid changes of temperature which take place in all such climates, especially at sunset. Persons wintering in warm latitudes should continually bear these facts in mind, and should be warned by their Medical advisers by no means to adopt summer clothing, and always to wear flannel next to the skin. A severe attack of bronchitis is far easier incurred than got rid of, as the writer knows to his cost; and though the sun's rays may be almost unbearably powerful, a passing cloud may make one shiver, or a half-hour incautiously spent out of doors about the time of sunset may, if one is not well clothed, compel one to keep to the house for a fortnight.

Acute bronchitis was especially common in 1866, and pneumonia figures highly in both years, a grave form of it being often seen in workmen who, while not too well nourished or clothed, are exposed to sudden chills; of the 46 cases of pneumonia admitted in 1867 no less than 10 died as against 25 cured, 5 having left the Hospital while undergoing treatment, and 6 still remaining under treatment at the end of the year; while in 1866 out of the 41 cases only 2 died. Of pleurisy we find 11 cases in each year.

Of course enteritis, especially a chronic form of it, and acute dysentery are rather frequent; and I find 14 cases in 1866 and 10 in 1867 classed as acute arthritis. Of "congestions and hæmorrhages" there were 27 in 1867 as against only 11 in 1866, cerebral hæmorrhage and congestion being remarkably common, and occurring, as might be expected, chiefly in the summer months.

Under "lesions of nutrition" are a tolerable number of cases of chronic heart disease; but what is much more important for our purpose, a great predominance of cases of pulmonary phthisis, 39 having been admitted in 1866, of whom 25 died, and 38 in 1867 with 22 deaths, the others having left the Hospital "*in corso di cura*," or having remained to swell the next year's list. "From which data," the reporters remark, "it clearly follows that not a single case of this most lamentable disease has been cured, which must be attributed not only to its deadliness, but also to the fact that the patients are brought to the Hospital at a much advanced period of the disease, and when they have already exhausted all the methods of which they could avail themselves. Phthisis, which in these times has become more common than formerly, seems to increase as the misery of our working classes augments, and as the immoderate desire of material pleasures and of the vicious habits that flow from them increase, it has, according to the wise opinion of the most learned modern Physicians, more need of hygienic than of pharmaceutical treatment—in fact, all the drugs which have been tried at various times have afforded little or no relief to consumptives; but instead of these it is a healthy atmosphere, with a moderate temperature, the choice of an appropriate climate, nutritious food, especially meat when the stomach digests it, and the protection of the body from chills by covering it with woollen textures, which alone can prolong the life of the poor tuberculous patient. Some Physicians of much renown have advised raw meat in the form of conserve to be given to consumptives, and this regimen when it is well tolerated ameliorates their nutrition and their strength."

This shows us that the Italian Physicians have come to about the same conclusions as ourselves, but it shows us something more, something for which we were perhaps hardly prepared; it shows us that in 1866 more than 23½ per cent. of the total number of deaths in this Hospital were from pulmonary consumption, while I find that in damp foggy Lyons, where diseases of the respiratory organs reign supreme, not more than 27·6 per cent. in 1865, and 31·7 per cent. in 1866 of the total "Medical" deaths at the Hôtel Dieu were from pulmonary phthisis—that is to say, that in a small seaside Sicilian town, with a delightful climate and an almost Algerian winter, consumption is nearly as rife as in a large inland manufacturing city with an unusually long and severe winter, during which heavy fogs are of daily occurrence; and this too though the former is built for the most part on porous lava, and the latter in great measure on comparatively impervious alluvium.

I may remark here in passing, that in Catania, as in Italy generally, a strong belief in the contagiousness of phthisis prevails, and so the phthisical patients are put into wards by themselves (often small, ill-ventilated, dirty places). No one likes to go near them; even those who are so bold as to feel their pulses stand at a respectful distance while doing so, and the poor creatures are left to their own melancholy company, and drop off one by one in sight of their doomed fellow-sufferers. Can anything be more lamentable than these results of a mere persuasion? for I can't call it anything more. Is it not infinitely preferable, for all practical purposes at any rate, to consider phthisis as non-contagious?

Gastro-intestinal catarrhs furnished 90 cases in each year,

(a) The Surgical cases have a special Hospital.

and diarrhœa 47 in 1866 and 18 in 1867; and the reporters observe that "these two diseases develop themselves with greater frequency in the hot months, whence it seems that there is a certain relation between the elevation of the atmospheric temperature and the development of gastro-intestinal catarrh and of diarrhœa, which latter, being a 'symptomatic disease,' is not always sustained by the same morbid process, but more often it is the irritable state of the intestinal mucous (membrane) that gives rise to it."

Cholera, of which there was only one case (a fatal one) in 1866, was epidemic during the months of June, July, August, and September 1867, there being 57 cases recorded, with 21 deaths; in July, 1867, I find 4 cases, of which 3 were fatal, put down as "colerina."

Under nervous diseases, the cases of severe cephalalgia, which occur frequently during the summer months, are the only noticeable ones.

Catania, then, is on the whole not a desirable winter residence for invalids, as far as we can judge from its nosology. The frequency of strong east winds in spring, and the nearness to it of the marshes of the great plain which lies to the south of it, are great disadvantages; but perhaps as great a one is that, except to a vulcanologist, there is absolutely nothing to see and nothing to do there. Palermo offers great advantages in these respects, and is nearer home, but is often rainy and misty during the spring months. Neither of them can, however, be compared to Algiers, which will, when the railway to Oran is finished and the sea passage reduced to a few hours, deservedly become "first favourite."

PHYSIOLOGICAL EXPERIMENTS ON THE FUNCTIONS OF THE MEMBRANA TYMPANI AND OSSICULA OF THE EAR IN HEALTH AND DISEASE.(a)

By Dr. ADAM POLITZER.

[Reported by Edwin V. Millingen, M.D.]

Experiments on an expanded artificial membrane, show that the membrane vibrates most when the sounds which are transmitted to it are approaching the tone appropriate to the membrane. The membrana tympani, on the contrary, possesses the quality of receiving and transmitting high and deep tones, not only in immediate succession, but also simultaneously. Our ear may be capable of distinguishing the tones of all the different instruments in an orchestra; the minutest sounds may all be simultaneously followed, and the least discord in the whole detected.

Professor Helmholtz has mathematically proved that curved membranes possess a greater power of resonance than flat membranes; this is proved by experiment.(b) Helmholtz attributes the power of resonance of the membrana tympani to the convexity of the radiate lamina towards the external meatus. Politzer believes this to be one of the causes; but it is also experimentally proved that the resounding power remains the same when the membrane is convex towards the sound it receives, or when it is concave to it. Politzer's opinion is that an important factor for the simultaneous reception of various tones, is the different degree of tension of the single parts of the membrana tympani, caused by its convexity.

The lecturer proved by the graphic method, that the ossicula do not move through single molecular vibration, but by movement '*en masse*. The proportional vibration of each ossicle essentially depends on the mechanism of the articulations. As early as 1862 Politzer proved that by the outward movement of the tympanum the malleus is drawn outwards, the incus not following that movement.

Helmholtz confirms this statement, and compares the articulation of the malleus and incus to the ratchet arrangement of a watch key. During an inward movement, the ratchet tooth of the malleus fixes itself exactly into that of the incus, and thus the incus is moved. During an outward movement, the ratchet tooth of the malleus becomes free from that of the incus, and thus the malleus alone moves. It follows then (as Politzer proved in(c) 1868, in a lecture in which he demonstrated that the axis of the ossicula is not fixed, but moveable), that the movements of the malleus are much greater than those of the incus or of the stapes. This was confirmed a year later by Schmiedekam, and not long ago Dr. Buck, of New York, has proved that the movements of the stapes are four times weaker than those of the malleus, and twice weaker than those of the incus.

The method which Dr. Buck employed is after Lissayous's principle, which consists in examining the vibrations of a body by optical instruments. Minute pieces of amylum were placed by him on the ossicula, and the vibrations measured by means of a microscope and a micrometer.

Politzer modified this method somewhat, and employed it in making a series of experiments on the human ear, the results of which are as follows:—

1. The vibrations of the ossicles produced by sounds of equal intensity transmitted to the membrana tympani, are more powerful when high tones reach the membrane. They are less when grave tones are transmitted to it; in very high tones, the intensity of the vibrations again diminishes.

2. If words are uttered into the meatus through a speaking trumpet, the ossicula vibrate, and the number of vibrations corresponds to the number of vowels in the word.

3. If some part of the membrana tympani be burdened with little wax balls, or some such thing, the intensity of the ossicular vibrations is somewhat diminished; but when the same weight is placed on the malleus, or any other of the ossicula, their vibrations are considerably reduced.

4. The ossicula being thus burdened, it will be noticed that high tones transmitted to the membrana produce comparatively greater ossicular vibrations than deep tones; and likewise words uttered produce much weaker vibrations than musical sounds. These results accord with observations made in diseased ears; changes on the membrana tympani (cicatrices, calcareous deposits) are less injurious to the power of hearing than other pathological formations, such as adhesion or anchylosis of the ossicula, which disturb their vibrations. It is also manifest that in such cases high tones are perceived much better than deep tones, and that difficulty in understanding speech is observed when musical tones are easily perceived.

5. In artificially perforating the membrana tympani, the vibrations of the malleus are considerably reduced; as soon, however, as an artificial membrane is brought in contact with the long process of the malleus, the vibrations again increase.

6. The clattering noise heard in the tympanic cavity, when strong sounds are transmitted to the membrana tympani, and to which Helmholtz has already drawn attention, is not produced, as he says, by the concussion of the malleus and incus articulation, but by the buzzing of the membrana tympani and the ligaments of the ossicula. This Politzer proved by showing on the cadaver, that the buzzing sound is heard even when the articulation of the malleus and incus is artificially anchylosed.

(a) A lecture delivered at the meeting of the Medical Society, held at Vienna, April 1, 1870.

(b) Dr. Politzer demonstrated this before the Society on an apparatus made by himself, and consisting of a large artificial membrana tympani with the malleus attached to it. The membrane is fixed at the end of a closed tube, with the exception of an opening at the extremity opposite the membrane, in this opening an otescope is fixed. Tuning forks of various tones are held before the membrane. On drawing the malleus backwards and thus increasing the curve of the membrane, the sound conveyed to the ear through the otoscope is much louder than when the membrane is in a relaxed state.

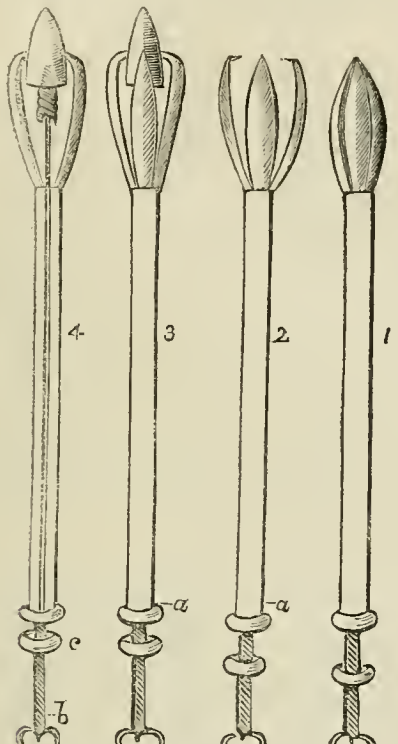
DESCRIPTION OF A NEW BULLET EXTRACTOR.

By SURGEON T. E. TUSON, M.D., F.R.C.S.,
Bengal Medical Staff.

At the present momentous time, when war appears inevitable between France and Prussia, I am desirous to bring before the Profession a bullet extractor invented by myself some years since, and which has not as yet, for want of opportunity, been fairly tried by army Surgeons. A long experience in gunshot injuries inclined me to have an instrument made which would in its shape and conformation be similar to a probe, and combine in its mechanism prehensile powers to seize a bullet the moment its situation was felt by the Surgeon. This instrument was therefore made in the shape of a probe with three blades at the end which shut completely, so that it might be introduced into a gunshot wound with perfect facility. I believe that most Surgeons on the field of action have felt the difficulty of finding a bullet, and to have frequently experienced the annoyance after ascertaining its position, on searching for it with the bullet forceps now in general use to have found it had slipped away into adjacent cellular tissue or sheath of a muscle. The blades of the instrument open or shut at the Surgeon's

(c) *Wochenblatt der k. k. Gesellschaft der Aerzte.* Wien. 8, Jänner.

discretion, and the moment the situation of the bullet is indicated by the sense of palpation, it can be seized by the operator. In addition to this a centre screw passes through the instrument, which on being revolved enters the bullet and fixes it so firmly that it can be extracted, even if it be impacted in a bone. The screw cannot injure surrounding tissues, as it works between the blades of the forceps, in the hollow space produced by their convergence. I believe this instrument will be found useful in the present war, as it is portable and light. The forceps now used in our army cases are so inadequate for the purpose that I think an improvement on them will be considered a desideratum.



Description of the Drawing.

1. The instrument with the blades closed.
2. The blades of the forceps open by pulling back the shaft of the instrument A.
3. The blades of the instrument represented grasping the bullet by pushing forward shaft A.
4. The screw in centre of the shaft of the instrument represented entering the bullet. This is done by twisting round screws B C a small running screw button, to indicate the distance the screw passes through shaft of the instrument.

This bullet-extractor is made by Mr. Pratt, Oxford-street.

REMARKS ON THE CAUSES AND TREATMENT OF "MOOLTAN" AND "FRONTIER SORES."

By JOHN CANDY, M.D., M.R.C.S.E.,
Senior Assistant-Surgeon, 109th Regiment.

I HAVE read with much interest an able paper on the above subject, contributed by Mr. Alcock, Assistant-Surgeon, 35th regiment, in the *Medical Times and Gazette* for April 9, 1870, and having been stationed with my regiment at Mooltan since December, 1867, I may be allowed to state how far my experience coincides with the statements he has made. As these ulcers are prevalent more or less throughout the Punjab, but more especially on the frontier, occurring alike amongst the native population and the white troops, we are naturally led to seek for the cause in some peculiarity of the soil, and in the quality of the water supply used alike by Europeans and the natives. First, as regards the nature of the soil. In Mooltan, and a large extent of country round (and more or less alike over the whole of the Punjab) the soil is of a light and sandy nature, and contains a large quantity of saltpetre, which gives it a peculiar glistening appearance, resembling a hoar frost at home.

One is struck very forcibly on examining the environs of the cantonments, and also of the Fort and native city of Mooltan, with the vast number of Mussulman burial grounds which are to be seen in every direction. Such being the case, it is not to be wondered at if in the event of heavy rain falling the water percolating through the soil becomes more or less charged with nitrates, and free nitric acid, and other salts resulting from the decomposition of organic and vegetable matter, which, when imbibed in daily small quantities, induces a peculiar cachexia, in some persons much more rapidly than in others, resulting in these ulcers, which commence like ordinary blind boils, but ultimately the skin is destroyed, and a granulating sore with a tendency to spread at its edges supervenes. In some cases I have known them to heal with simply applying rags dipped in common lamp oil without any tonic medicines, but other cases again we meet with which resist all manner of applications (including carbolic acid with oil) combined with tonics and a generous diet, with beer or wine. I invariably gave my patients lime juice from 2 to 4 oz. daily, as I looked upon the disease as allied to scurvy, as the gums in nearly every instance were spongy and inclined to bleed. The natives have great faith in the local application of the powdered root of the country rhubarb (rewand-chini), which they generally mix with a little clarified butter (ghee). I tried it in my Hospital wards in several cases with decided beneficial results. But in my opinion—I can speak from personal experience—there is nothing equal to a complete change of climate, such as a voyage to England or Australia, which in the case of officers affected with these sores is always obtainable on "Medical certificate" at any season of the year if required. It has been found by experience that where wells are kept in constant use, and the water not allowed to stagnate, very little harm results from using them; but if a well from any cause has not been used for months or even longer, very speedy and injurious effects manifest themselves in attacks of dysentery and aggravated forms of dyspepsia, etc.

As prevention is better than cure in all diseases, so in the case of "Mooltan" or "frontier sores" it is advisable to boil and filter the water before using it for drinking purposes. With the means at present in use, this is not practicable on a large scale, such as would be necessary to supply a sufficient quantity of water to the barracks for the use of 600 men, besides women and children. The filters at present in use consist of three chatties (earthenware vessels), holding about a gallon of water each, placed in a stand one above the other. In the top one is placed a quantity of fine sand, and in the second some vegetable charcoal; the water, slowly filtering through small holes, is received into the third or bottom vessel fit for drinking purposes. It is an interesting fact, related by Mr. Alcock, that in the analysis of the water which he took home from India (Mooltan, I presume), Dr. Parkes, of Netley, found it contained sulphuretted hydrogen to the extraordinary amount of 1·512 cubic inches per gallon. Such being the case, one is not surprised at the results of drinking such water, and it behoves Government to adopt such remedial measures as shall ensure an ample supply of wholesome drinking water in every station in India.

Mooltan, Punjab, June, 1870.

THE INFIRMARY FOR DISEASES OF THE LEGS, ULCERS, etc., in Red Lion-square, has just received a donation of £1000 from an anonymous donor.

IT may be questioned if the massive barracks and Hospitals now erected are necessary or ever positively injurious. Robert Jackson long since stated he would sooner treat his patients under a hedgerow than within the walls of a crowded building. And we all know that the most solid structures are liable to become contaminated by prolonged residence, especially when the dwellers therein are sick and diseased. It is therefore at least worth consideration, if the cost of the most expensive sanitary work now going on in India,—viz., the building of massive new barracks, may not be curtailed. Protection from the weather may be afforded, to as great an extent as desirable, in less costly if not so durable dwellings. And a periodical change of site might not prove among the least important sanitary progress.—*Results of Sanitation in India, by W. J. Moore, L.R.C.P.*

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CASES OF OBSTRUCTION OF LACHRYMAL DUCT, RECOVERY FROM DOUBLE OPTIC NEURITIS, ETC.

(Under the care of Mr. HAYNES WALTON.)

Amongst the out-patients attending at Mr. Haynes Walton's ophthalmic room at St. Mary's Hospital, on July 21, we saw a good many cases of obstruction of the lachrymal duct, in the various stages of this distressing condition, from mere epiphora to a large abscess extending nearly to the mouth. In these cases Mr. Walton is guided, as to operative interference, by observing whether or no the sharp anterior edge of the lachrymal groove is to be felt, as when this is obscured he knows that periostitis is present, and the operation must be performed. We saw this done in two cases, the canaliculi being slit up on a fine director, and a probe-pointed style, with bent head, as used by Mr. Walton, afterwards thrust well home. As a rule, however, Mr. Walton defers the use of the style until the canaliculus is fairly patent. The students were shown the direction in which to push the style, and taught how to recognise that the instrument is safely in the canal by feeling no bone in its progress. For some days after the canaliculus is slit up, it is kept open by regular probing, and afterwards the style is re-introduced, and worn until all suppuration has ceased. Mr. Walton has no faith in the use of sea-tangle or india-rubber tents in the treatment of this obstruction.

A girl had come down from the eye ward for ophthalmoscopic observation. She was a good-looking girl of 18, apparently in excellent health, with good eyesight, and, as the examination showed, a perfectly healthy fundus in each eye; yet this patient had been admitted seven weeks previously with double optic neuritis, great pain in the head, nearly complete blindness, and grave cerebral symptoms. As a child she had enjoyed good health generally, until two months before admission, when she began to suffer greatly from headache, with rapidly increasing impairment of vision, and failure of strength. The catamenia had long been frequent and irregular. On admission, in addition to the symptoms mentioned, there were signs of incipient phthisis in slight consolidation of one apex, and impaired sensibility over the left side of the head. Both pupils were dilated and sluggish, and examined with the ophthalmoscope the optic discs were both greatly obscured, and with the characteristic woolly appearance. Whilst in the Hospital, the symptoms at first became greatly aggravated; the girl became furiously delirious, needing restraint. The loss of sensation over the side of the head became more marked, and she complained of seeing strange things crawling about, the floor heaving under her, etc. etc.

Under treatment, however, these signs gradually cleared off, the sight returned with the mending of the general health, and when we saw her she was thoroughly convalescent. The treatment consisted of rest, constant cold to the forehead, mild mercurials, and iodide of potassium. The form of mercury employed was ℞ hydr. c. cretâ gr.ij., c. ext. hyoscy. gr.iij. in a pill twice or three times a day, care being taken neither to purge nor salivate. Mr. Walton considers it important to be careful in the selection of the form of mercury and the mode of its administration, regarding opium as merely a plug to the lower bowel, and so causing dyspepsia by allowing an accumulation to take place in the small intestine. Hyoscyamus is found not to cause similarly unpleasant symptoms. One of the patients was a man with syphilitic inflammatiou of the eyes, and in pointing out the other signs of syphilis present, Mr. Walton laid stress on the fact that certain circular dusky scars on the forearms would not lose their colour under pressure of the finger. He stated that an ordinary healthy cicatrix will always blanch under pressure, but that those resulting from syphilitic sores will always keep a large portion of their stain under this test, which therefore becomes of much diagnostic value. Mr. Walton also made some remarks upon the distinction between superficial and more serious inflammations of the eye pointing out that where any uncertainty existed as to whether a superficial inflammatory condition were connected with deep-seated inflammation, the best test was—disregarding the course and distribution of the engorged vessels—to find out how the sight was affected, and if this remained fairly acute, there could be no inflammation of the interior of the eye. This was illustrated by the narration of a case in which Mr. Walton was consulted as to the condition of a gentleman under treatment for syphilis, whose eyes had suddenly inflamed with pain, lachrymation, photophobia, etc. It was considered that this patient was probably in for an attack of syphilitic iritis, but finding that he could read ordinary minute print when desired, Mr. Walton was sure that the redness of the entire surface of the eyeball denoted only a catarrhal ophthalmia. At the same time with the slightest loss of acuteness of vision, no matter how slight the external redness of the eye, one may be certain that the internal tunics are involved in some form of disease, and an ophthalmoscopic examination becomes necessary.

THE MIDDLESEX HOSPITAL.

ACUTE PLEURITIC EFFUSION — PARACENTESIS THORACIS—RAPID RECOVERY.

(Under the care of Dr. HENRY THOMPSON.)

The practice of performing paracentesis in extensive acute uncomplicated pleuritic effusion, has recently been revived in several of the London Hospitals, and a considerable number of cases have been lately treated at the Middlesex Hospital in this manner with decided success. A female patient, aged 22, was recently discharged convalescent from Northumberland Ward, who when admitted eight weeks before was the subject of acute pleuritic effusion on the left side. The pleura was almost as full as it could be, the temperature and pulse were elevated, the heart was pushed to the right side, and there was dyspnœa, but not of an urgent character. In a few days, notwithstanding the treatment, the fluid appeared still to increase. Dr. Thompson determined, therefore, upon paracentesis, which was accordingly performed, and eighty ounces of clear fluid coagulating entirely with heat were drawn off. The relief, both local and general, was immediate. From this date she gradually improved without any symptom of particular note, and left convalescent.

SEVERE CASE OF ANGINA PECTORIS, RELIEVED BY MORPHIA AND NITRITE OF AMYL.

(Under the care of Dr. HENRY THOMPSON.)

For the notes of the following interesting case we have to thank Dr. P. B. Smith, the resident Clinical Assistant:—

E. K., aged 28, laundress, married, was admitted into the Middlesex Hospital, under the care of Dr. Thompson, on June 1, 1870, suffering from the effects of an attack of angina pectoris, which happened two days before. It appears that her father died at the age of 53, with symptoms of angina pectoris. The patient herself has had two attacks of rheumatic fever, both of which occurred in 1861, and since that time has suffered from dyspnœa on exertion, palpitation of the heart, and occasional hæmoptysis. One of her children has been subject from its birth to palpitation, dyspnœa, and blueness of the lips, but is otherwise healthy. During all the time she remained in the Hospital (exactly two months) she had frequent attacks of angina pectoris, occurring at first almost every day, but latterly at intervals of nearly a week. While labouring under an attack, the typical symptoms of angina pectoris were exceedingly well marked, more especially the dread of death, and the radiating pain, which frequently extended to the head and face, and down both arms and legs. On auscultation a loud purely systolic murmur was heard at the left apex, audible also at the back, and a very faint diastolic murmur at the base.

The treatment adopted during the attacks was as follows:—From the day of admission to June 19 all the paroxysms were treated with the subcutaneous injection of morphia, beginning with one-sixth of a grain and gradually increasing the dose till one-quarter of a grain was reached. The result of this plan of treatment was uniformly to cut short an attack in about five minutes after the morphia was injected. Owing to the sickness, vomiting, and headache which often resulted from the morphia, more especially when the dose came to be increased, Dr. Thompson determined to try the effect of the inhalation of nitrite of amyl in controlling the paroxysms. The mode of its administration was simply to allow the patient to inhale the amyl from a bottle, the mouth of which was applied to one nostril. After the inhalation had been cautiously continued for about ten seconds, the face became somewhat flushed, the veins slightly prominent, the pulse slower and fuller, and the patient, after drawing a long breath, declared herself quite free of pain. The same train of symptoms happened every time the amyl was inhaled. It never failed to check a

paroxysm; it produced no unpleasant after effects; it did not lose its power from repeated use. On the contrary, the occurrence of paroxysms diminished during the time the patient was under this plan of treatment.

SURGERY IN INDIA.

By A. S. G. JAYAKAR, M.R.C.S., F.R.M.S.

FRACTURE OF THE SKULL—CONCUSSION—CEREBRAL IRRITATION—NECROSIS—COMPLETE RECOVERY.

R. D., aged about 30, was brought on December 2 to Hatteesing's Hospital, Ahmedabad, from a neighbouring village in a state of perfect insensibility, with pupils dilated, and pulse of fair volume though rather quick. He was reported to have been struck on the head with a thick, strong, wooden stick by a thief. When I saw him for the first time on the morning of December 4 he was in a delirious state and very irritable; restless in bed with his legs drawn up. Pulse feeble, regular, 80 in a minute; tongue coated with a white fur. There was a large swelling about the right side of the head, on touching which he was very irritable, preventing a proper examination of the tumour. A blister was ordered to the nape of the neck, to be dressed with unguent. hydrargyri, and mercurial inunction into the thighs. On his admission he had a croton oil and calomel pill, but the bowels not having moved it was repeated.

December 5.—A little more sensible. Could put his tongue out, but immediately relapsed into the irritable state. The swelling on the head was carefully examined and found to be due to compound fracture of the skull, situated about the inferior angle of the right coronal suture, and extending backwards and downwards in the right parietal bone. There was a small external wound sufficient to admit a small-sized probe. The swelling was ordered to be poulticed, and he was ordered to take internally opium gr. iv. during the day. He went on gradually improving under this treatment till the 8th, when he was perfectly sensible and able to answer all questions rationally. The deep wound leading to the fracture was dressed with carbolic oil from the bottom and his bowels were opened by a dose of croton oil. His appetite slowly returned, the swelling of the head went down, and there was hardly any symptom of irritability left on the 11th, when a difference between the pupils of the two sides was noticed, the left being larger than the right. The patient left the Hospital on the 17th without my permission, only to return on the 4th of January with extensive erysipelas of the right side of the face and head, and a copious discharge of pus from the wound. On exploring the wound the pieces of fractured bone, which was for the first time discovered to be comminuted, were in a state of necrosis, the probe easily passing under them and touching the dura mater. There was a marked difference between the pupils of the two sides, which was observed only in the evening after sunset, whilst in the morning and during the day the size of both pupils was the same. The erysipelatous inflammation was subdued by means of poppy fomentation and opium gr. iv. taken internally, after which an expectant plan of treatment was adopted.

On the 21st of January there was return of erysipelas and some tendency to return of irritability. A blister was applied to the nape of the neck, and he was ordered liquor hydrarg. bichloridi ♏xv., with potass. iod. gr. iij. three times during the day. He soon rallied under the treatment, and on February 7 he was again well, although the wound had not completely healed. By February 17 the wound was entirely healed, the necrosed portions of bone being evidently restored to life again. He was discharged on February 18, 1870, there being hardly any difference between the two pupils, and the patient to all appearances perfectly well.

Remarks.—There are three or four points of very great interest in the above case. 1st. How the state of concussion rapidly passed into one of irritability; 2nd. The powerful influence of opium in subduing the symptoms of irritability; 3rd. Periodic dilatation of the left pupil, which can be explained in only one manner. There was a constant dilatation of the left pupil, but the rays of sunlight were sufficiently strong to overcome the feeble though constant dilatation. With this view the pupil was experimented upon with a strong light at night; both pupils were found to be of the same size, firmly contracted. The 4th, and one of the important points of interest, is the necrosed bone being restored to life again. There was evidently necrosis of the different pieces of the fractured bone, yet, under the constant use of carbolic acid, the bones soon united, evidently after the necrosis had set in, leaving hardly any trace of the fracture. This illustrates to us how nature can easily produce a reparative material in cases of injuries of the head, and at the same time keeps us on our guard not to interfere much with her efforts but to watch patiently and follow an expectant line of practice in such cases.

AN EXTREME CASE OF STONE IN THE BLADDER — LITHOTRITY — RAPID AND COMPLETE RECOVERY.

M. R., aged 48, an extremely nervous man, was admitted into Hatteesing's Hospital on November 11, 1869. When I saw him on November 22 he was suffering from the usual symptoms of stone; there was great irritation of the bladder with extensive cystitis; the mucous membrane thickened, and the bladder quite contracted. Urine was thick, turbid, and contained a large quantity of ropy mucus with pus. Under the microscope it presented epithelium from the pelvis of the kidney, pus-cells, and a large quantity of triple phosphate. He was ordered to take carbonate of potash gr. xx., thrice daily, with a hip-bath and a morphia and belladonna suppository at bedtime. The extreme irritation had pulled him down a great deal, and on his admission he looked very poorly. He was ordered to take ʒiij. of brandy and egg mixture with a liberal diet. By December 1 his constitution had much improved, though the vesical irritation and the nature of the urine remained the same. Weiss's lithotrite was introduced and the stone having been measured only 1 inch in diameter, it was firmly seized and crushed, the instrument remaining inside the bladder only three minutes, and bringing out with it nearly 40 grains of stone. A few drops of blood escaped, but, upon the whole, the patient bore the operation very well. He was ordered a hip-bath and gin, ʒiv. during the day. For the next few days, although the vesical irritation was less, there was a general constitutional disturbance; the second sitting was therefore not attempted until December 4, when 55 grains more of stone were removed with the instrument, which was on this occasion held in the bladder for nearly ten minutes. The operation was followed by a slight hæmorrhage, but was of little consequence. He had the third sitting on the 6th. This, having been followed by more disturbance than on previous occasions, his bladder was allowed to rest for a few days, only a few small bits being now and again crushed with the urethral lithotrite. The sittings were resumed on the 10th, and he had the last and fifth sitting on the 12th, when also a few bits were crushed with the urethral lithotrite. The whole weight of the stone was 5 drachms and 35 grains; it was a phosphatic stone with the uric acid nucleus. After this he began gradually to improve; the irritation entirely disappeared, and the urine became daily clearer and clearer, his general health at the same time improving. On January 4 the urine was perfectly clear, and no symptoms of irritation. During the interval between December 12 and January 4 a sound was occasionally introduced into the bladder, but no bits of stone discovered.

January 13.—Urine perfectly clear and normal; general health very good. All the symptoms of cystitis have disappeared. Discharged from the Hospital.

Remarks.—In the present case the symptoms of vesical irritation and inflammation were entirely due to the presence of stone; and the removal of the cause seemed to be the only rational cure, though the general health of the patient contra-indicated such a procedure. Lithotrity was had recourse to as the only safe means of giving the man the least chance of living. The case more than illustrates how easily the bladder regains its natural vigour and tone the moment the local cause of irritation is removed.

PROSECUTION UNDER THE CONTAGIOUS DISEASES ACT.—For some time past it appears that Mrs. E. M. King and Mr. Daniel Cooper, Secretary to the London Rescue Society, have been sojourning at Devonport for the professed purpose of opposing the Contagious Diseases Act on behalf of the Anti-Contagious Diseases Act Association. They were in the habit of daily visiting a notorious street in Plymouth, occupied chiefly by women of bad character, for the purpose of inducing the women coming under the Acts not to submit to their provisions. For this they were summoned on Thursday last before the magistrates of the Plymouth Police-court. It appeared that the interference with the Act had become so general that the Admiralty solicitor prayed for the infliction of imprisonment on Mrs. King without the option of a fine. The defence raised was on some technical points in the Act. The case was eventually adjourned.

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Medical Times and Gazette.

SATURDAY, AUGUST 6, 1870.

THE POOR-LAW MEDICAL OFFICERS' SUPERANNUATION BILL.

We congratulate the Medical officers of the Poor-law service of England and Wales that the mischievous alteration which the Lords introduced into Mr. Brady's Medical Officers' Superannuation Bill has in its main point been rejected by the House of Commons, and that although some feint of resistance was made by Lord Redesdale, the author of the obnoxious clause, yet the House of Lords has finally accepted the measure in the form which the House of Commons has approved. Had the clause introduced by Lord Redesdale, and approved by the Duke of Richmond, which we published last week, been allowed to remain in its integrity a part of the Bill, the measure would have conferred absolutely no benefit on the great mass of Poor-law Medical officers. In England and Wales the salaries paid for Poor-law Medical service are so ridiculously small that no Medical man can possibly subsist and support a family upon his Poor-law appointment. The possibility of obtaining private practice is the excuse which the parochial and central authorities advance for the smallness of the remuneration allotted to Poor-law Medical officers. But if a Medical man is unable to live upon the miserable income to be derived from the Poor-law service, how can he possibly subsist upon a superannuation allowance, a part only of the original salary? Here and there some poor Doctor, worn out by age and broken by service, might have been willing to accept the tender mercy of Lord Redesdale, and might have resigned himself to two rooms and a crust. But to offer this as a boon to the great mass of Medical Practitioners throughout the country who are sacrificing health and strength in the service of the poor would have been a mockery and an insult. The thanks of the Medical Profession are due therefore to Mr. Brady and to Mr. Goschen for the stand they have made in this matter, and for the loyalty with which they have supported the cause of the Poor-law Medical officers. The consideration of the Lords' amendments came on in the House of Commons late on Thursday last week. Mr. Brady, and Mr. Goschen on the part of the Poor-law Board, objected *in toto* to that part of Lord Redesdale's clause which related to private practice, and the House of Commons decided that it should be omitted, and that the clause should stop short with the requirement that the Poor-law Inspector of the district should certify as to the Medical officer's incapability to perform his public duties. The Commons amendment came before the House of Lords on Tuesday last, when the Marquis of Salisbury moved that it should be agreed to. Lord Redesdale, however, nothing abashed by the tacit rebuke administered to him by the Lower House, returned to the charge and proposed to substitute for the Commons' amendment "that no Medical officer should be entitled to a pension who did not make a declaration that he did not intend to continue private practice." But his lordship, failing, we suppose, to obtain support for his shabby proposal, did not press it, and the Commons amendment was finally agreed to. We can hardly believe that a British nobleman would *proprio motu* thus engage in a persistent attempt to wrest from the hardest-worked, most self-sacrificing, and not the least useful of Professional classes in this country, the long-looked-for boon which has been awarded them by a large majority of the representatives of the people. In certain influential quarters it has been a persistent policy to depress and undervalue as much as possible the Poor-law Medical service, and we strongly suspect that the opposition to this Bill in the House of Lords is the last effort of this scandalous but now happily defeated line of action. We believe that Mr. Brady's Bill will inaugurate a new era for the Poor-law Medical service. We hear on good authority that he intends next session to bring in a Bill to put the Medical service of England and Wales on a more satisfactory footing, and that he proposes to adopt as his model the Irish dispensary system, with such modifications as may adapt it to English institutions. We also understand that he will be supported in this movement by a distinguished member of the House of Lords. We have full confidence that Mr. Brady's Bill will be drawn up with an intelligent and generous appreciation of the duties, responsibilities, and requirements of the Poor-law Medical officers, and with a due consideration of the exigencies of the sick poor. If this be so, we know that it will receive the unanimous support of the Medical members of the House of Commons and of the whole Medical Profession.

PROFESSOR VON GRAEFE.

The great leader of ophthalmic Surgery, Albrecht von Graefe, of Berlin, died on July 20, 1870, in the 45th year of his age. He has gone to his rest in the zenith of his glory, but he has left, as a legacy to posterity, a record of the facts in the treatment of eye-disease which his master mind had accumulated—foundation stones, upon which others yet may build. The great work of Von Graefe's life was his discovery of the cure of acute glaucoma—a disease which terminates in permanent blindness, and which had hitherto baffled all treatment. It was no mere guess or haphazard trial which led Von Graefe to perform iridectomy for the relief of this terrible affection. Having thoroughly investigated the nature of the glaucomatous process, and having satisfied himself that all the symptoms were due to an increase of the intra-ocular pressure, and that no relief was to be obtained by medicinal means, he sought, by local treatment, to reduce this undue tension to its normal standard. First he tried paracentesis of the cornea, but the result was unsatisfactory; the relief it afforded was generally slight, and, with but few exceptions, it was only temporary. He next turned his attention to the merits of iridectomy—an operation which he had frequently performed in recurrent iritis, irido-choroiditis, and in various extensive corneal affections. The effect of iridectomy in causing a recession of the protrusion in many cases of partial staphyloma of the cornea satisfied him that this removal of a portion of the iris exercised a wonderful influence in reducing the tension of the eye. He resolved, therefore, to apply iridectomy to glaucoma, and in June, 1856, he performed the first operation for the relief of a disease which, up to that date, had been irremediable. In a paper published by Von Graefe in his *Archiv für Ophthalmologie*, and afterwards translated by Mr. Windsor for the Sydenham Society, he concludes by stating that, having followed some of his cases of glaucoma on which he had operated for more than a year, "I think I cannot be mistaken in regarding iridectomy as a true curative treatment of

the glaucomatous process"—an opinion which has since been endorsed by all the best ophthalmic Surgeons in Europe and America.

Although the cure of glaucoma was the crowning act of Von Graefe's life, yet in all the departments of ophthalmic Medicine and Surgery he was a great master. In the volumes of the *Archiv für Ophthalmologie* he has written upon almost all the subjects connected with the Surgery and pathology of the eye, amongst which the articles on strabismus, detachment of the retina, sympathetic ophthalmia, and cataract, are specially noticeable. His last work was the perfection of his "modified linear extraction" of cataract, an operation which has been attended with very brilliant results.

The world-wide renown which Von Graefe obtained must be attributed rather to the combination in one man of many gifts, than to the extraordinary development of any single quality. His appearance was commanding, fascinating, and imparted confidence; he had great self-reliance, and a certain amount of egotism, a wonderful capacity for work, and a sense of order which prevented a wasteful expenditure of his forces. Thus gifted, he acquired at an early age a reputation which has been almost unprecedented—patients of all classes, from the prince to the pauper, flocked to his Hospital for the benefit of his skill; whilst students from all parts of the world crowded to his clinique to witness his manual dexterity, and learn his teachings.

COMMUTATION OF PENSIONS.

The War Office has just published a statement of the terms on which officers entitled to pension may be permitted to commute the same. On obtaining the sanction of the Secretary of State, the officer desiring to commute will be required to give such information as to his health and habits as is usual in the case of persons proposing to insure their lives, and must submit to a personal examination. The rates of commutation are based upon the ages of applicants, and vary from about fifteen years' purchase at the age of 21 to not quite four years at the age of 80. An addition of years of age will be made in the case of impaired lives, and a deduction will on the other hand be made as an equivalent for the right to prospective increase of half-pay, retired pay, or other allowance, if such right shall exist. The applicant, on being informed by the Commutation Board of the amount allowed to him, will have the option of withdrawing his application on the payment of a fee of £3 3s., within thirty days after receiving the notice; should he not do so, the decision will be considered final, and the commutation of pension will take place absolutely.

Two tables are given, showing the system on which the rates of commutation will be calculated. One shows the number of years' purchase, at varying ages, of an annuity of £100; the other shows the capital sum per £1 of half-pay, retired pay, or other allowance payable to claimants on commutation. The latter is the more easily understood, and from it we have extracted the following particulars, according to the ages at which most usually Medical officers would be entitled to retire, and have also made an approximate calculation of the commuted sums at each age.

1st. As Surgeons, after twenty years' service, on 12s. per diem, or £219 per annum.

Age next birthday.	Capital sum allowed per pound of half-pay.	Commuted sum.
	£ s. d.	£ s. d.
42	13 1 8	2875 5 0
43	12 18 4	2828 15 0
44	12 14 10	2790 8 6
45	12 11 2	2755 5 6
46	12 7 2	2694 12 3

2nd. As Surgeons-Major after twenty-five years' service, having fulfilled the necessary conditions, on seven-tenths of the daily pay at time of retirement, or, omitting fractions, 18s. 10s. per diem, or £344 1s. 9d. per annum.

Age next birthday.	Capital sum allowed per pound of half-pay.	Commuted sum.
	£ s. d.	£ s. d.
47	12 2 11	4179 7 9
48	11 18 5	4103 1 0
49	11 13 9	4021 15 5
50	11 9 0	3940 1 0
51	11 4 3	3858 6 8

To obtain the above rates it will of course be necessary that the lives shall be unimpaired; so that officers who have been compelled to retire on account of ill-health, although receiving a higher rate of annual pension, must expect an addition being made to their ages, and a proportionate diminution of the sum allowed on commutation.

At 55 years of age, the period at which retirement is compulsory on Medical officers below the inspectorial ranks, the allowance per £1 will be £10 6s.; and at 65, when those of the higher ranks must also retire, it will be £7 17s. 11d.

We have frequently advocated the commutation of pensions to Medical officers of the army, as many of them will thereby be enabled, having a considerable sum at their disposal, to make arrangements for entering into private practice, but we must say that the rates above given appear to us to be very far from liberal. The expectation of life of a healthy man aged 42, according to Finlaison's tables, is 25·74 years, and we believe that actuaries, in calculating the terms of purchase of annuities, allow 21·5 years to a man aged 42; but only 13·085 years are allowed by Government for commutation of pension at the same age, and so on in proportion. It must at the same time, however, be remembered that the commutation refers only to the actual income of the officer, and does not deprive his wife and children of their prospective pension or allowances on his death. We have no doubt that many will be induced to accept the commutation, small as it is.

THE WAR.

We understand that, as yet, the French Government has not sanctioned the presence of any foreign officer or volunteer with the army in the field. The Emperor having, however, after the success at Saarbrück, relaxed the former prohibitions as to English newspaper correspondents, and having unconditionally released the representative of a daily contemporary who had been arrested as a spy, we look forward to the withdrawal of the order forbidding the admission of English officers to the head quarters camp, and hope shortly to hear of the despatch of some experienced British military Surgeons to the seat of war.

We observe that M. Nélaton has left Paris to join the army, his ostensible mission being the organisation of the field Hospital service—a duty for which, notwithstanding his eminence as a Surgeon, we suspect, he is not so well adapted as many a younger man in the French army. It is more probable that he goes in order to continue his services as the personal Medical attendant of the Emperor.

The increased activity of the various branches of the military service has extended to the Army Medical Department, the Director-General having for some days during the past week been engaged at the arsenal at Woolwich inspecting all the articles of general and field Hospital equipment, and making such preliminary investigations as may enable him to provide for the requirements of an expeditionary force. We have not yet heard anything of an increase in the strength of the Medical establishment of the army; but reductions may be considered at an end.

The destruction produced by Gatling gun and mitrailleuse, Chassepot and needle gun, has not altered in a greater degree the character of modern warfare than it has that of the Surgery of the battle field. The old Surgery of gunshot wounds is rapidly becoming a thing of the past. Guthrie may, before

long, have to take his place beside Ambrose Paré and Richard Wiseman on our topmost shelf. Our army Surgeons whose experience has been formed in the Crimea and India, have never been brought face to face with the dire destruction which can be produced by explosive bullets and Pertuiset powder. How long before their courage, ingenuity, and skill will have to be shown in undertaking the management of new, and perhaps more formidable, injuries than ever fell to the lot of the worthies of the last wars we do not know. But the war now raging warns us to be prepared. Preparation in a Surgical sense implies experience. For this reason we join with the general press in entreating Mr. Cardwell to press for permission from the belligerent powers that some of our army Surgeons may be attached to the head-quarters of each contending force for the purpose of studying the Surgery of this war. Medical men are non-combatants, and we are certain that the rulers of both France and Prussia have sufficient knowledge of the character of English army Surgeons to be assured that they will respect the duties of guests if the privilege of study in camp Hospital and battle-field is allowed them.

THE WEEK.

TOPICS OF THE DAY.

The Fellows of the Royal College of Physicians have shown themselves as hopeful and sanguine a body of gentlemen as we should think are to be found in her Majesty's dominions. At a meeting of the College held last week we learn that the Fellows have unanimously adopted a resolution recommending the President and Council of the College to invite the heads of Universities and Medical Corporations, and such other Medical bodies as they may think desirable, to confer together with the view of drawing up another Medical Bill, to be submitted to Parliament in its next session. This resolution, we maintain, affords the strongest proof that can be offered of the unbounded belief the Fellows of the College cherish in the potency of the influence the President and Council may be able to exert—1st, upon the Universities and Medical Corporations in England, Scotland, and Ireland; 2nd, upon other Medical bodies, by which we presume are meant such bodies as the British Medical Association, and the Medical Reform Union; 3rd, upon the General Medical Council; 4th, upon the Government of the day, and upon the Houses of Lords and Commons; and 5th, upon the great mass of the Medical Profession itself. After the experience of the last six months, which has shown that even a strong department of an exceptionally strong Government has been unable to overcome the repulsion which exists between all these incompatible elements, all honour we say to the Fellows and executive of the Royal College of Physicians for attempting to perform the task. We hope that the attempt may prove a successful one, but we cannot say that we anticipate that even the persuasive influences of Pall-mall East will prove sufficient. The very mention of calling to their aid the universities introduces at once an element of destruction into their proposal. The Medical Profession will consent to no Bill which does not embody the one portal system. The universities strongly object to their students being compelled to pass any compulsory minimum examination as a condition of graduation, and this objection has been one of the main causes of the failure of the Government Medical Bill. Again, the question of direct or indirect representation in the General Medical Council is one on which the most diverse opinions are held by those who agree that the constitution of the Medical Council ought to be modified. Added to these difficulties is the very great improbability that any Government in the present state of Europe will be able to give its attention or support to a home measure involving so much dispute and difficulty and, in the eyes of the multitude, of such minor importance, and the tolerable certainty that the Government which has failed in passing its own Bill will not look with very favourable eyes upon another. We can only repeat that we admire the hopeful and trustful disposition evinced by the Fellows of the College. At the same time we wish the College all success in its undertaking, and can assure them that if, with the help of other bodies, they can draft a measure embodying the great principles on which we have so often insisted, we shall render it the most hearty support in our power.

At the meeting of the Council of the Royal College of Surgeons which will take place on Thursday next, we presume that the proposal for the separate election of examiners in anatomy and physiology from Fellows outside the Council will again come under discussion. Mr. Gay's proposal for representation in the General Medical Council, we believe, will take the shape of a motion for obtaining a larger representation of the College in that body, and of giving to the Fellows and Members a voice in the election of a representative. It certainly seems a monstrous anomaly that the University of Durham, which, we suppose, cannot boast of fifty Medical graduates, should have precisely the same amount of representation in the General Medical Council as the Royal College of Surgeons with its many thousands of Fellows and Members.

By the retirement by seniority of Dr. Goolden, a vacancy in the staff of Physician to St. Thomas's Hospital has been created, which was filled on Thursday last week by the election of Dr. Edward Clapton, of late years the only Assistant-Physician to the Hospital. The authorities have now determined to elect two Assistant-Physicians, and we hear that, amongst others, Dr. Ord and Dr. Stone, both of whom are lecturers in the School of St. Thomas's Hospital, are candidates for these offices. No doubt when the Hospital authorities take possession of their new buildings a large increase of the strength of both the Medical and Surgical Staff will be necessitated. But for this the Profession will have to wait a year at least.

A very painful case has been lately tried at the Oxford Assizes. A highly respected Surgeon, Mr. Joseph Greene Wilson, of Wem, was shot at in his own house and severely wounded, under circumstances that led to the suspicion that the revolver used to inflict the wound was fired by his own son. Happily the evidence did not convince the jury, for it was proved that it was possible the shot might have been fired by a burglar who might have escaped unnoticed. Mr. Wilson's son was acquitted.

Amongst the *on dits* in reference to the withdrawn Medical Acts Amendment Bill we hear that a covert but powerful opposition to the Bill was set on foot by some influential members of the legal profession, who acted under the belief that if the education and examination of the Medical Profession were reduced to a uniform standard and placed under the direction of the Privy Council, it would afford a precedent for dealing in the same way with the profession of the law. The lawyers, we can readily believe, would resist Government interference to the uttermost.

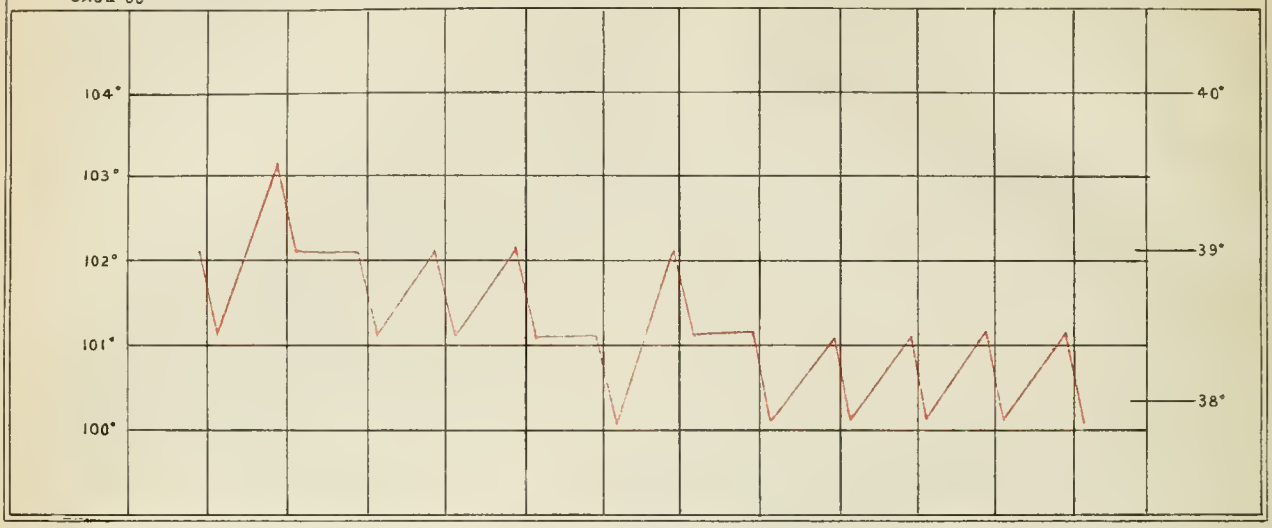
We are glad to notice that a committee consisting of Dr. Crawford, Dr. Murchison, Mr. Bourne, Mr. Bridgsett, and Mr. C. S. Bevill, Secretary, who have been appointed to inspect and report on the condition and requirements of the Netley and other military Hospitals in the Southern district, recommend that the principal Medical officer in charge should have a power of control quite independent of the executive military branch of the army, and that the whole system of organisation should be remodelled in accordance with the spirit of the recommendations contained in Lord Herbert's report.

The Director-General of the Naval Medical Department has been engaged for several days in visiting the naval establishments at Portsmouth. A competitive examination for the entry of Assistant-Surgeons into the navy will be held at the University of London on Monday next and the following days.

The deaths in London from diarrhœa last week were 371, and there were 46 from simple cholera and choleraic diarrhœa.

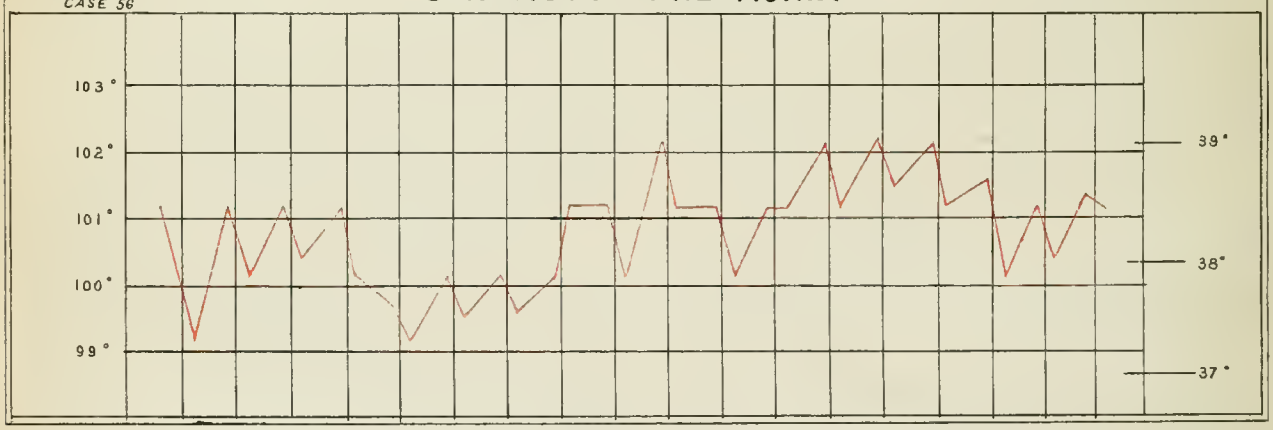
CHRONIC PNEUMONIA. ABSCESS (FATAL)

CASE 55



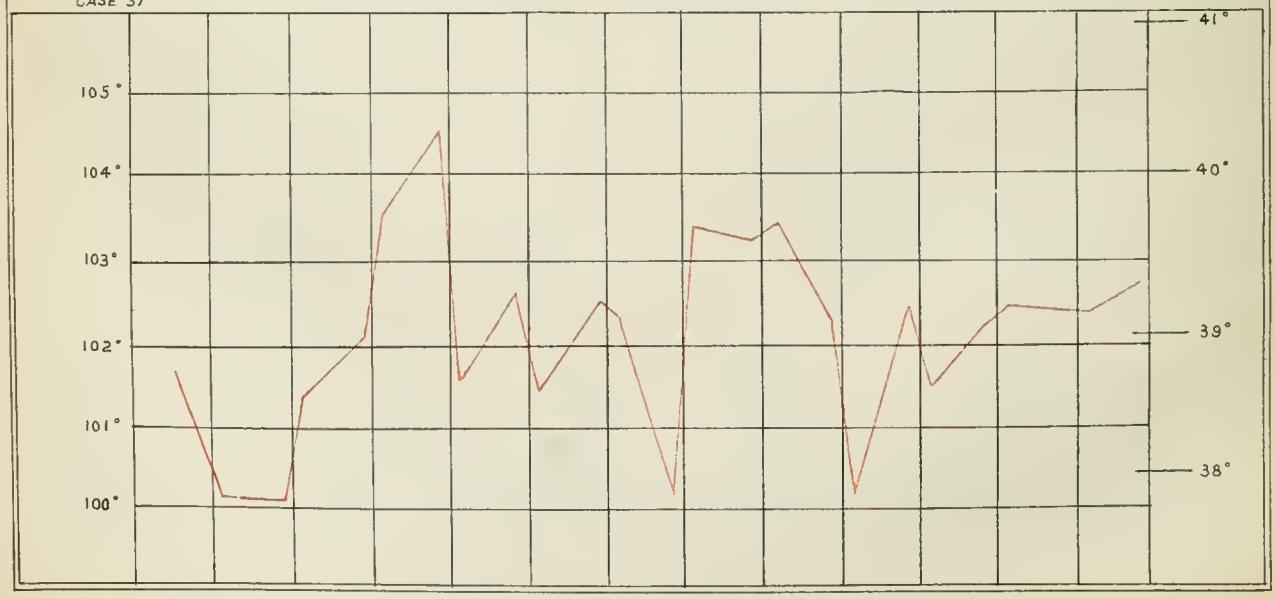
STRUMOUS PNEUMONIA

CASE 56



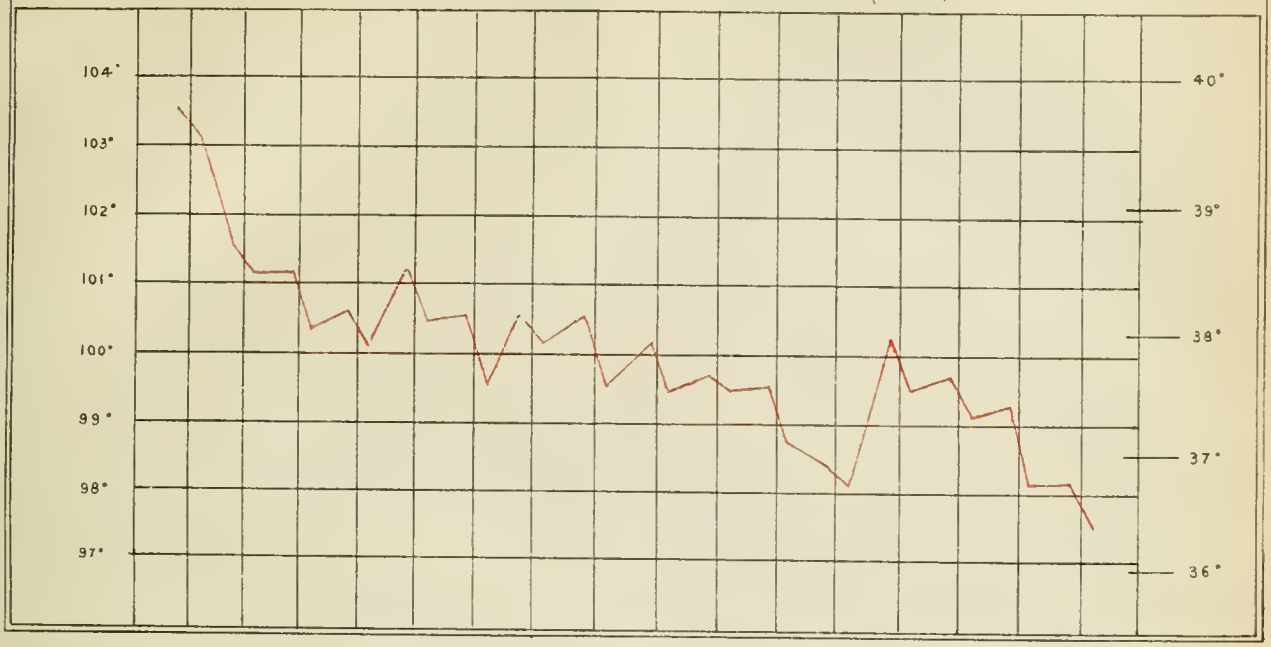
STRUMOUS PNEUMONIA (FATAL)

CASE 57



CASE 58

CHRONIC PNEUMONIA. TUBERCLE (FATAL)

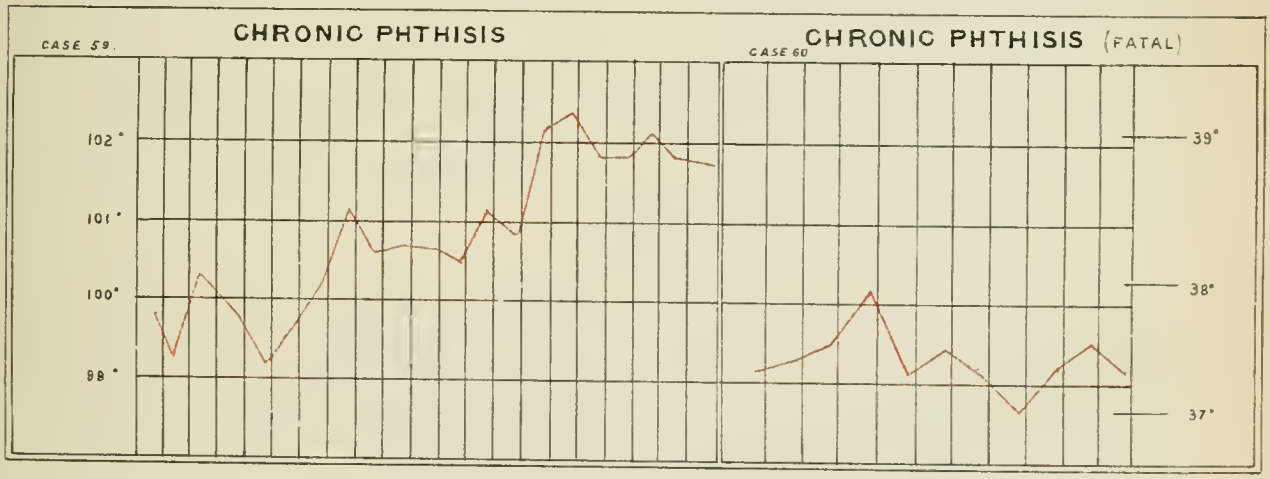


CASE 59.

CHRONIC PHTHISIS

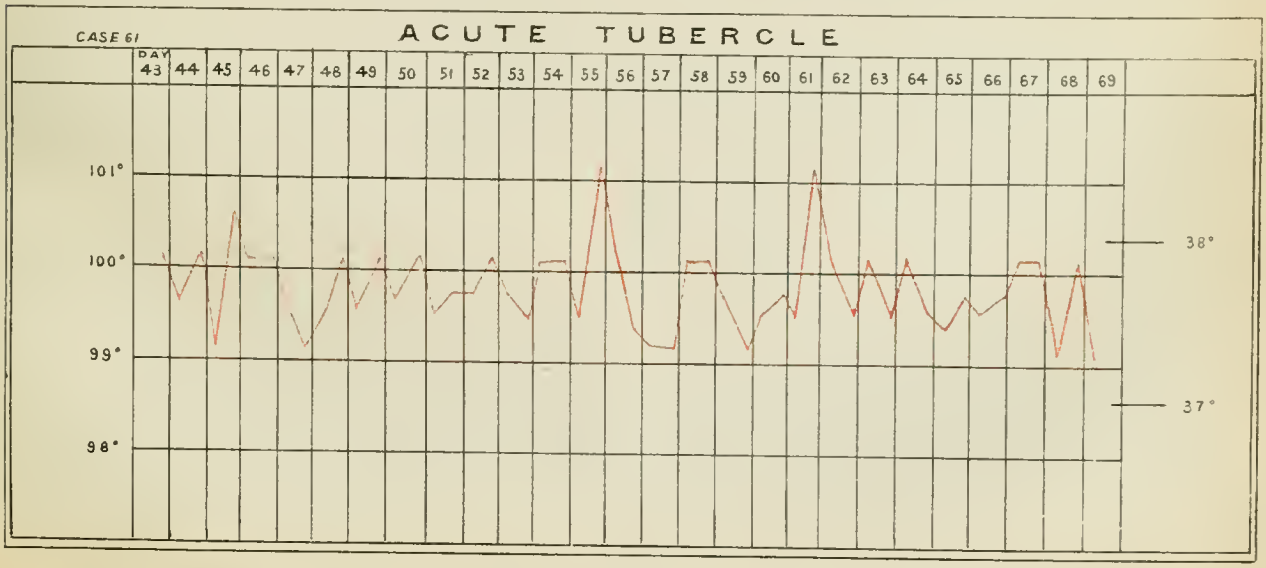
CASE 60

CHRONIC PHTHISIS (FATAL)



CASE 61

ACUTE TUBERCLE



This is slightly below the rates of the previous week. The largest mortality from diarrhœa during the last five weeks, has occurred in the eastern districts. Diarrhœa has increased the proportion of deaths under 1 year of age from an average of 22 per cent. of the total deaths in the June quarter to 37 per cent. in July. The Registrar-General notices that we shall receive no more weekly returns of health at present from Berlin, for Dr. Zuelzer, who has hitherto furnished them, has joined the army.

THE PROPOSED MEMORIAL TO SIR JAMES CLARK.

In reference to two letters which have appeared in our columns suggesting a memorial to Sir James Clark, we have been requested to state that when the subject was brought to the notice of Sir James's family, a desire was expressed that the proposal should not be carried out. While feeling deeply the kind intention of the writers of the letters, his family consider it doubtful whether such a memorial would have been wished by Sir James, as on several grounds he did not approve the practice of subscriptions for such purposes. Sir James Clark's family wish to warmly thank the friends who entertained such a wish, and hope they will not be hurt by a request not to move farther in the matter.

TESTIMONIAL TO DR. THORNTON.

On the occasion of the the transfer of Dr. Thornton from the Head Mastership of Epsom College to the Wardenship of Trinity College, Glenalmond, a number of the old boys have resolved to present him with a suitable testimonial indicative of their respect and esteem. Those willing to aid in their amiable project may communicate with Mr. W. W. Wagstaffe, 122, Kennington-road, S.E.; Mr. H. Morris, 13, Keppel-street, Russell-square, W.C.; Mr. J. F. Wright, 53, Seymour-street, Portman-square, W.; or Mr. J. F. Goodhart, 24, Montpelier-crescent, Brighton. Those wishing to contribute are desired to do so as early as possible, that the form of testimonial may be decided on at an early date.

THE PENSION TO DR. MILROY.

The rare event of a minister distributing any portion of the annual pension-fund at his disposal among the Medical body is always matter of congratulation, as we know it has been hardly earned. The wives of military and naval officers, with novelists and poets of every grade of inspiration, are the usual recipients. Dr. Milroy well deserves the £100 that has been granted to him, having been, for above twenty years past, one of our most earnest workers in the unremunerative labours of sanitary reform. His services in Jamaica and the Crimea ought, indeed, to have been suitably rewarded long since. He has been one of the most urgent advocates for the reform of international quarantine legislation, and although every one must feel disappointment at the slow progress that has been made on the Continent, and even at the retrograde legislation which has sometimes been put into force, yet this indefatigable promulgator of sound views deserves none the less credit.

CHOLERA IN BRITISH BURMAH.

A correspondent informs us that cholera of malignant type broke out among the British troops at Thayetmyo early in April last. Only one case occurred among the Royal Artillery, but rapidly proved fatal; in the right wing of the 76th Regiment, which it was found necessary to move out into camp, twenty-six admissions to Hospital and nineteen deaths occurred. On April 20 the wing was moved to a fresh encampment across the Irrawaddy, when the epidemic may be said to have entirely ceased; as only one fatal case occurred after the move into the second camp. The total mortality included twenty-one men, two women, and two children.

THE CHAIR OF MIDWIFERY IN EDINBURGH.

The storm excited by the recent election to this chair has not yet blown over, and in some respects waxes louder than ever. It is an old proverb *qui s'excuse s'accuse*, and this the "baillie boddies" have found to their cost. Apparently the state of public feeling has induced them to make a clean breast of it to the Town Council; and certainly, if the appointment was obnoxious beforehand, their explanations have not mended matters. The story goes that a certain worthy gentleman, utterly ignorant of law, was, as has been wont, appointed a colonial judge. Duly conscious of his own deficiencies, he hurried to one eminent for his judicial capacity and legal knowledge, and asked what was to be done; the appointment was too lucrative to be thrown up, and the poor man was foolishly anxious to do his duty. The advice he got from the lawyer was—"Always decide as you think right, but never give your reasons. Ten to one your decision will be right, ten to one your reasons wrong—at least, in point of law." The man consoled went away rejoicing, and followed his friend's advice with great success, until at last, grown confident of his powers, he ventured to give reasons for his decision in one case. Immediately an appeal was entered, and it went dead against him for the reasons he himself had given. Surely one would have expected baillies to be wise enough not to give reasons.

THE NORTH OF SCOTLAND MEDICAL ASSOCIATION.

This Association held its annual meeting in the rooms of the Aberdeen Medico-Chirurgical Society on Saturday, the 30th ult., Dr. Keith, the President of the Association, in the chair. An admirable address, terse and pointed, was delivered on the occasion, the Chairman dwelling mostly on the unfortunate position of the Poor-law Medical Officers in Scotland, on the want of a good Medical Act, Council reform, and such like. Dr. Keith also alluded to his own long continued services to the Infirmary, an institution with which he had been connected upwards of thirty years, and to the improvements about to be effected in it. The meeting seems on the whole to have been very successful.

SURGEONCY TO THE ROYAL INFIRMARY, ABERDEEN.

At a special meeting of the managers of the Royal Infirmary, Aberdeen, held on July 29, Dr. Alexander Ogston was elected Surgeon to that institution as successor to Dr. Keith. Dr. Ogston amply deserves the honour conferred upon him, and it must be a source of satisfaction to him to have triumphed over opponents as able and as worthy as Drs. Davidson and Best. Nor will the feeling be lessened by the knowledge that he succeeds a Surgeon of such distinguished merit as Dr. Keith.

THE EPIDEMIC OF SMALL-POX AT PARIS.

It would be some consolation during the awful events about to happen if the capital of one of the belligerents showed any signs of a rapid subsidence of this pestilence. Unfortunately this is not so, as the deaths from small-pox even exhibit a slight tendency to increase, the numbers being 227 in a total mortality of 1195. We were somewhat in error in one of our recent reports concerning the supply of vaccine virus in Belgium. It seems from an explanation made by M. Warlomont, the director of vaccine, during a heated discussion at the Brussels Academy of Medicine, that he does not charge for the supply of the ordinary virus; but that considerable sums are charged for the heifer virus, as the cows are his own private speculation! The Milan Committee for Animal Vaccination (they also have their little speculation in the matter, and charge considerably for supplying the virus) report that during the months of April and May they vaccinated 1492 individuals, in which number there were 1265 successful vaccinations, and 80 unsuccessful—147 cases not having been verified.

DECAPITATION BY HANGING.

The horrid events connected with the execution of Carr in the Richmond Gaol, Dublin, again bring us to the consideration of capital punishment. The case was as clear as noonday, and the murderer suffered justly, but one can scarcely absolve the authorities from all blame. Thus, instead of employing the regular executioner, an amateur hangman was employed, who seems to have been almost useless. At length the rope was adjusted, the drop fell, and with it the malefactor, but instead of remaining suspended the neck gave way, and head and trunk fell separately to the ground, cleanly divided as if with a knife. We remember a somewhat similar event having occurred in one of the midland counties, and if we are not mistaken in that case also there was an amateur concerned.

The factors concerned in the horrid event seem to have been a bungling hangman, a very thin but strong rope, and an unusual fall of fourteen feet. At the inquest which followed, Dr. Minchin, Surgeon to the gaol, gave evidence to the effect that the height was a matter of calculation merely. In this he was no doubt influenced by a clever paper contributed some time ago to one of our contemporaries by Professor Haughton. It should be the object in all cases to produce instantaneous death by dislocation of the vertebræ rather than a slow one by strangulation. The force necessary for this purpose having been approximately ascertained, and the weight of the convict being also known, the height through which he should be allowed to fall may be calculated. Something of the kind seems to have been done here, but the other two factors were not considered, hence the horrid sequel. It would seem that the force was great enough to fracture the second cervical vertebra, whereby alone instant death would result.

But all this only leads us to the consideration of whether, after all, hanging is the best mode of capital punishment; and whether its attendant horrors might not be lessened. It has been conceded that public executions are not moral spectacles, yet even now, when executions are in private, there are details given in the papers often sufficiently revolting. The other day, here in London, Miller was carried apparently insensible to the gallows, and hanged while sitting in a chair. Perhaps in this way a scene was spared us, and there seems to be no good reason why that should not always be done. Insensibility is easily induced, and the garotte is equally efficacious with the gallows; it may not be so theatrically impressive, but that is not the point. If a man's life is forfeit, let it be forfeited, but by all means let us reduce the attendant horrors.

THE IRISH INSTITUTION FOR THE EDUCATION OF IDIOTIC AND IMBECILE CHILDREN, LUCAN.

This institution, after many delays and difficulties, has been now fairly at work for one year, its first anniversary having been celebrated on Tuesday, the 12th ult., by a gathering of the promoters and supporters of the institution, and of the friends and relations of the pupils. Lord James Butler, vice-chairman, and Lady Rachel Butler, who have always shown the greatest interest in the institution, the Rev. Mr. Black, Dr. George H. Kidd, one of the honorary secretaries, and several other ladies and gentlemen were among the guests, who were liberally entertained by the resident Medical superintendent, Dr. Pim. There are at present 25 children in the institution—viz., 14 boys and 11 girls; of these 9 are free, a portion of the cost and care of maintenance varying from £2 10s. to £15 a year is paid by the relatives of 9 others, and the entire by those of the remainder. The numbers were further increased on August 1, when an election was held for the admission of 8 more; 4 to be free and 4 to be partially paying. The progress made by the children is already very marked, and was the subject of warm congratulation from those visitors who had seen them on their first admission to the institution. All had improved in appearance and bodily health, and many showed decided evidence of increased intellectual power. In one case the improvement was so great, that though it had been found impossible to teach the boy anything before his admission, he can now write a very respectable copy and spell words of three letters. The pupils were put through various drilling and gymnastic exercises, and acquitted themselves very creditably. The children afterwards partook of a plentiful meal of tea and cake, *al fresco*, and appeared very much to appreciate the kindness displayed towards them. One gentleman superintended the ascent of fire balloons, and another exhibited the wonders of the magic lantern, in all of which many of the children displayed considerable interest. The committee hope soon to establish workshops, in which the more advanced pupils may learn some useful occupation. From the annual report now before us, we also learn that the house and demesne of the late Lord Donoughmore, at Palmerston, only five miles from Dublin, have been obtained on favourable terms, and will supply much more extensive and suitable premises. It is also gratifying to observe that the Asylum for Middle Class Lunatics, transferred to the committee of the Institution for Idiots, by its former proprietor, Dr. H. H. Stewart, who at the same time contributed the munificent donation of £5000, proceeds satisfactorily under the new management, and is likely to form an important source of income for the Institution for Idiots. Dr. Stewart's noble gift well entitles him to a high place in the grateful estimation of his fellow citizens, who have already among them so many memorials of the disinterested philanthropy of members of the Medical Profession in Ireland.

RELIEF TO THE SICK AND WOUNDED.

A meeting was held on Thursday afternoon at Willis's Rooms, under the presidency of the Duke of Manchester, for the purpose of organising a society for relief to the sick and wounded of all nations in war, similar in principle to the American Sanitary Commission. The meeting was addressed by the Earl of Shaftesbury, Field-Marshal Sir J. Burgoyne, Colonel Loyd-Lindsay, Sir H. Verney, Lord Eliot, Monsignore Capel, Dr. Pollock, Dr. Mayo, Captain Galton, Captain Burgess, and others. Resolutions were passed establishing a central committee in connexion with the conference of Geneva, and adopting the badge and flag of the international society, which has its head-quarters there. It was determined to lose no time in ascertaining the mode in which personal and material assistance could be most acceptably rendered to both sides.

FROM ABROAD.—SANITARY PREPARATIONS FOR THE WAR—THE MILK OF OPPOSITE BREASTS—DEATH DURING AN OPERATION.

The French Medical journals are urgently directing the attention of the authorities to the sanitary precautions to be taken during the impending war. It is not with impunity, M. de Ranse observes in the *Gazette Médicale*, that such immense agglomerations of men as these two armies can be assembled within circumscribed limits. The danger may arise from the mere massing together of such multitudes of men, even when in good health; from those of them who become sick or wounded, and whose overcrowding it is so difficult to prevent; and from those who remain on the field of battle, for whose effectual burial there often is not time enough. With respect to the men in health, Medical counsel will be of little avail, the health of the soldiers being entirely in the hands of their military chiefs. Even in respect to the sick and wounded, in whose management Medical officers should be supreme, those of the French army are subordinate to a presumptuous and ignorant "*intendance*."

"How can an administrator or *intendant*, who has never had to fight, so to say, hand to hand with typhus, cholera, Hospital gangrene, erysipelas, pyæmia, etc., comprehend with exactness the dangers of over-crowding, and see the necessity and urgency of taking the necessary precautions against this

imminent cause of infection? Military Medicine, then, will require all its courage, patience, and perseverance in order to strive against the ignorance, prejudices, and hierarchical susceptibilities of the *intendance*."

It will meet with every encouragement from the International Society, from the civil Practitioners who are joining the army in such numbers, and from the press. In a recent circular, addressed by the Minister of the Interior to the Préfets, he shows himself fully alive to the impending dangers from agglomeration, and suggests the formation near the frontier of provisional depôts in connexion with all railway lines. Small Hospitals may thus be established in any convenient building, or, better still, in private houses, which will doubtless be thrown open in large numbers to the wounded. These will be served by the nuns, schoolmasters, sisters of charity, and others, under the direction of Medical men, and will be the means of saving many valuable lives. The different mayors are to ascertain the most suitable localities in the different parishes, and here are to be centred all means of giving aid, and ambulances are to be kept ready to at once repair to the scene of action. Each small Hospital is to forward to head-quarters the number of beds it has at its disposal. There is every reason to fear that the French ambulances are insufficiently manned, both as regards Surgeons and nurses; and those who have taken part in their work in recent wars are busy in exposing their deficiencies, and calling for an amended organisation.

It is not, however, only with the living that care has to be taken. With the present implements of war, the carnage will be frightful, and it has been proposed by M. Lapeyrere and others that the thousands of bodies should be disposed of by cremation. The rapidity of strategetic movement will prevent all effectual burial; but it has been replied that this very rapidity would also prevent the burning of several thousand bodies, while the gases disengaged by the process would do infinite mischief. A better measure would seem to be one similar to that proposed for cemeteries by M. Jules Guérin. A dry permeable soil having been chosen, deep pits should be dug, and between each layer of bodies therein deposited, quicklime should be interposed.

M. Sourdat, at a recent meeting of the Académie des Sciences, read a paper on "The Unequal Production and Difference in Composition of the Milk of the Two Breasts of the same Woman." Having observed the decided preference which an infant gave for the right breast, and that this breast was larger than the other and furnished about double the supply of milk, it was determined to examine the two milks separately. The conclusions arrived at were:—1. The composition of the milk of the same woman, taking both breasts together, compared day by day, is very variable, without any appreciable change in the state of health. Temporary fatigue, some slight change in regimen, or a retention of the milk in the breasts, may induce such variety in composition. Thus in eight analyses the weight of the dry residue has varied from 10·10 to 13·70 per cent. The density has also varied from 0·981 to 1·031. 2. The composition of the milk in the two breasts varies, and that at the same time. Thus that of the right breast, which is much more abundant, is also more rich in fixed matters, varying from 1·20 to 1 for the minimum to 1·74 for the maximum. 3. Under these conditions the butter is generally secreted in far larger quantity by the left breast—viz., 1·50 to 1 for a minimum, and 1 to 9 for a maximum. The mere appearance of the two milks exhibits this marked difference. 4. The nitrogenised matters, caseum and albumen, are also secreted in larger quantities, 1·90 to 1 being the maximum. 5. The soluble principles, sugar of milk and salts, it is remarkable, as the result of five analyses, are the only ones which were pretty much alike in the two breasts; and in two analyses in which there was a slight difference, this was found in favour of the side having the least butter.

M. Verneuil is one of the few Surgeons who speaks as readily of his failures as of his successes, well knowing that they are often the most instructive of the two. At a recent meeting of the Société de Chirurgie he related a painfully interesting case of a lad between 16 and 17 upon whom he operated for a large naso-pharyngeal polypus. He determined upon the preliminary removal of the superior maxillary, having found, in other cases where the polypus took on large extension as in the present, this to be a very successful procedure. Chloroform having been administered, this was excised without opening the mouth, in order to avoid allowing blood to enter it as long as possible. He then found the polypus enormous, and so vascular as to seem as if covered with a varicose plexus, and bleeding on mere contact with the finger. As each lobe was removed the bleeding was abundant, the blood falling into the throat and threatening suffocation. The pedicle of the polypus having been detached, the operation seemed completed, but the patient crying out and struggling, blood entered the mouth and was spit out. M. Verneuil threw in some cold water by means of an irrigator, while the patient was in a sitting posture, but on laying him down again he was found in a state of complete syncope. Artificial respiration was employed, and the patient was to some extent restored, but on his again crying out the blood rushed from the veins of the wounded surface, penetrated the air-passages, and induced fatal asphyxia.

M. Verneuil believed this was the cause of death, the syncope preventing the economy reacting against the asphyxia, and he did not consider the issue could be in anywise attributed to the chloroform. In this opinion M. Houel agreed, and has never in his own practice met with any ill consequence from the use of chloroform in this description of case. He has found, however, in such cases, that the polypi contract very close adhesions with the bones, the separation of which is very difficult and often gives rise to serious hæmorrhage. For this reason he completes the operation only in a sitting posture with the body bent a little forward, so as to favour the flow of blood externally. M. Le Fort, on the other hand, doubted whether the patient would have died had he not been chloroformised. In most of the cases of deaths from chloroform, things have passed as in this case; and syncope after operation, when chloroform has not been given, is rarely fatal, the vital reaction proving sufficiently strong, whereas after chloroform it becomes enfeebled. M. Labbé also thought that the chloroform had some connexion with the issue, and he believed that some water might have escaped into the trachea during the irrigation. M. Liégois regretted that M. Verneuil had not at hand an electric pile, as he himself has been enabled to save life by its agency; and he thinks that in all serious operations Surgeons should provide it in case of the occurrence of syncope. M. Verneuil observed in reply that the determining cause of death was the penetration of a very notable quantity of blood into the air-passages. He does not think that chloroform should be incriminated, for before its discovery it was not rare to find death occurring after operations from traumatic anæmia and from asphyxia, due to the penetration of blood into the air-passages. He has several times met with syncope caused by chloroform, and on all occasions the patients have been restored to life, which would probably have been the case here, but for the penetration of the blood.

PARLIAMENTARY.—OBJECTIONABLE PUBLICATIONS—THE MEDICAL OFFICERS' SUPERANNUATION BILL — THE NATURAL HISTORY DEPARTMENT OF THE BRITISH MUSEUM.

In the House of Commons on Thursday, July 28, in answer to a question by Mr. Bentinck in reference to the publications of the Anti-Contagious Diseases Act Association, Mr. Bruce said that in his opinion the circulation of pamphlets containing offensive details which might be injurious to morality, even when the object with which they were circulated was not immoral, was an offence under 20 and 21 Vic. cap. 18. In proof he quoted the decision in the case of the pamphlet, "The Confessional Unmasked," and added, I hope the warning conveyed by this decision may have the effect of checking the further

distribution of these offensive works, more especially at a season of the year when there are no fires to whic they may be conveniently and immediately consigned.

The Lords' amendments to the Medical Officers' Superannuation Bill were considered, and in clause (2) added by the Lords, it was resolved to leave out the words, "or continuing his private practice," after "efficiency." The former part of the clause was agreed to.

On Tuesday, August 2, in the House of Lords,

The Marquis of Salisbury moved that the Commons' amendment to the Lords' amendments to the Medical Officers' Superannuation Bill be agreed to.

Lord Redesdale proposed to substitute, in lieu of the Commons' amendment, words to the effect that no Medical officer should be entitled to a pension under the Bill unless he made a declaration that he did not intend to continue his private practice.

The noble lord's amendment, however, not being pressed, the Commons' amendment was agreed to.

In the House of Commons,

The Chancellor of the Exchequer moved a vote of £6000 for the new Natural History Museum, which it is proposed to build on the ground at South Kensington purchased by the Government from the Great Exhibition Commissioners. According to the explanations of Mr. Lowe, who compared this with all the previous plans, the Museum will cover about four acres, and the plan is approved by the authorities of the British Museum.

This, however, was denied by Mr. Knight, who said that the working trustees had been swamped by the official trustees, and that all the scientific men were opposed to the site.

Mr. Beresford Hope very reluctantly accepted the arrangement, but

Mr. Bentinck and others insisted on taking a division. The result was a confirmation of the vote by 96 to 34.

THE GEOGRAPHICAL DISTRIBUTION OF DISEASE IN ENGLAND AND WALES.

On the 20th ult., Mr. Haviland convened a meeting at 1, Adam-street, Adelphi, for the purpose of explaining his reasons for memorialising the Treasury to assist him with a grant of £75 to defray the unexpected expenses incurred by the necessary corrections of the maps of the Registrar-General's office. Mr. Haviland's memorial had been well supported by Major Graham, who considered that the corrections made were of great importance to his office, especially in view of the approaching census. Mr. Haviland wished it to be particularly understood that he did not ask for public money to defray any private cost that he had incurred, but to reimburse himself for the expenses of correcting public maps, which were useless either to him or the Registrar-General's office until the deficiencies were made good, and their inaccuracies rectified. Mr. Haviland then described the nature of his work, and dwelt upon the practical utility both to the Medical Profession and the public of disease maps, especially when based on such large numbers as those afforded by the Registrar-General's reports. Disease maps have, from time to time, been projected both in France and England—in the former country by Mr. Baudin, and in the latter by the Registrar-General—during epidemics of cholera and cattle plague. Dr. Keith Johnston was, however, the first who, on a large scale, attempted to give a general idea of the geographical distribution of disease, throughout the globe. The great difficulty in all these maps was to show at a glance how the death-rate stood with regard to the average mortality from any particular disease but the plan Mr. Haviland had adopted of expressing the proportional mortality by tints of two colours instead of one, red and blue, had succeeded in overcoming it. This new plan facilitates the study of this branch of science materially. Mr. Haviland explained that there are over six hundred and thirty union districts throughout England and Wales, the deaths arising in each of which are proportioned according to the population male and female. Thus over 1260 districts have to be analysed and then grouped according to the figure of mortality accorded to it by the Registrar-General. Of heart disease 236,000 deaths took place and were registered in the decennial between 1851-60; these deaths ranged from 5 to 25 per 1000 living. These numbers are divided into six groups, three of which, those *above* the average are coloured blue of different shades, the highest mortality having the intensest colour, and those *below* the average are coloured red, the lowest mortality (or healthiest) having the deepest red, so that the shades from each extreme gradually fade as they approach the boundary line of the average. By these simple means each group can be studied separately and contrasted. Mr. Haviland said that before such a map as he exhibited could be studied efficiently, an analysis of each of the six groups is made on separate maps, twelve in all, and every condition of physical configuration, geological formation, aspect, social condition, proximity to the coast, relation to tidal waves, ports, density, and occupation of the populations, etc., has to be well weighed; it is no slight task. The maps as represented by the one exhibited will be able to be analysed in the same manner when published, and each student of them will have an opportunity afforded to him, for the first time, of examining for himself the causes of the distribution of disease. The maps are all coloured and figured according to the Registrar-General's statistics, which, as we all know, depend upon the cause of death certificates of legally qualified Medical men; and the author does not pretend to make of them more than they really are—the accurate exponents of the Registrar-General's figures, and so arranged as to afford easy reference to the mortuary records which he has published. Hereafter students in this branch of knowledge may work at these maps, form their own conclusions, and base theories upon the facts displayed. The author claimed the same right for himself, and, although his views have been assailed by those who have never taken the trouble to examine his work, he is quite contented to leave it in the hands of those who, when his maps are published, will, with the public reports by their side, be able to examine for themselves and judge without prejudice. So far as the author's views are concerned, the more strictly he has analysed them, and crucially tested them, the more convinced is he that they are based upon truth, and he hoped his work would be of service to his profession and the public. Mr. Haviland concluded by saying that as his basis map would form the groundwork of so many others, including those of the hydrography, the geology, the distribution of occupation, etc., it was absolutely necessary that the most rigid accuracy should be observed in all its details of parish and union boundaries. When complete, this map would be able to show in two or three days after the publication of returns, or coincident with them, the weekly progress of any epidemics prevailing throughout the country; it could be used for the purposes of showing diseases generally, should the registration of disease ever take place; and lastly, should a *disease census* ever be carried out as Mr. Haviland had proposed, it would afford every facility for stereotyping upon its surface the favourite haunts of those terrible maladies which, like cancer, phthisis, typhus, small-pox, etc., destroy so many and cause so much painful misery; perchance when these haunts have been examined, the food on which these diseases thrive may be discovered and destroyed. To prevent disease is the end and aim of geographising it.

THE ANNUAL REPORT OF THE POOR-LAW BOARD.

No. IV.

The "Boarding Out" System.

One of the most unsatisfactory results of our workhouse and panper-school system is admitted to be its effect upon the *morale* of the children of the poor. Separated from their parents, left entirely to the charge of attendants who are paid their wages irrespective of results as regards the happiness of their charges, these children are found to grow up dull, apathetic, and mechanical. Though sheltered from the hardships to which the children of the independent poor are exposed, they are also cut off from the interests which the cottager's or working-man's children enjoy. They miss, too, and, by their demeanour and habits show that they miss, what every one who has children, or has watched children, knows to be as the very air they breathe, sympathy. They become, then, as a natural consequence, unsympathetic, and hence the complaint that, when launched into the world as servants or apprentices, they are inaccessible to the ordinary incentives to exertion—praise and blame. Moreover, as the unavoidable result of a residence in a large establishment where mechanical aids are necessarily resorted to for the saving of labour, they are frequently found to enter upon service almost entirely ignorant

of the simplest domestic duties. No blame appears to attach to the guardians or their officers. The former can do no more than lodge and feed suitably the children under their care. They cannot supply a parent's place, however willing they may be to pay for the best of care and instruction.

In view of this state of things there came to be suggested the plan of giving to pauper children an opportunity of becoming part and parcel of the family of an independent poor person. This plan, which is referred to by the Poor-law Board in the report before us, is known as the "hoarding out" system, and has attracted special notice during the past year. The Poor-law Board, it appears, having received numerous requests from unions for their sanction to the adoption of the system, determined to consider its expediency. They were aware that it was open to numerous objections which had led them previously to oppose any step of the kind. In this opposition they were "influenced mainly by the consideration that in view of the responsibility imposed upon guardians as regards orphan children, the guardians would be unable to exercise the necessary control and supervision of the children who may be removed from the workhouse and placed under the charge of those whose main object in taking the children would be to make a profit out of the sums allowed for their maintenance. Other strong objections occurred to them, such as the difficulty of ensuring that some regular education for the children is given as in the schools attached to the unions. The proposed change appeared to the board to give insufficient security either for the instruction or physical well-being of orphan children." The board therefore pointed out the serious risks attendant upon the system, and the imperative need of surrounding it with all possible safeguards, so as to ensure the proper education and the general well-being of the children. Subject, however, to the recognition of the necessity for a regular organisation, which would provide for a constant supervision of the children, and on the understanding that satisfactory securities would be afforded in all these respects, the system was to have a fair trial. In putting the plan, however, into practical working, in the case of a benevolent lady in Westmoreland, who was anxious to take charge of, and to board, some children belonging to Bethnal-green, other difficulties cropped up. Notably the grave objections which obviously exist to contracts and pecuniary arrangements between the Guardians and third parties, not being the proposed foster-parents; the difficulty inseparable from placing out in one union children belonging to another, and from securing periodical inspection in one union by officers of another; and the risk lest the children should ultimately become permanently chargeable to the union in which they were boarded. Further, it was needful to bear in mind that "a high pecuniary inducement offered to cottagers to take in pauper children may tend to dangerous contrasts being made between pauper children and the children of the independent poor, the maintenance of the latter being felt as a heavy charge, whilst the maintenance of the former, if too liberally paid for, would confer an actual pecuniary benefit. Instances have come to our knowledge of widows sending their own boys out into the world at a very tender age, in order to make room for the reception of pauper children, whose maintenance would be paid for."

It is true that in Scotland the system has been in operation for many years with apparent success, but the social circumstances of the two countries differ in many respects so very materially, that the success of the plan in Scotland can scarcely be accepted as a safe criterion that it will answer equally well in England. The arrangements for the inspection of the children in the former country are very vigorous, and a careful organisation is employed for the purpose of selecting the families with whom the children are to be placed. But even there there were some few unfavourable instances of the working of the system, as appears from the report of Mr. Henley, one of the poor-law inspectors, who was sent to Scotland for the purpose of inquiring into the working of the Scotch poor-law in this respect. The following are some of the unsatisfactory samples with which he met.

"Mrs. B—— has a child to board with her belonging to —— parish; Mrs. B—— is an old woman of 70, upon parish relief, 1s. 6d. a week; she is paid 3s. 6d. a week for the boarded-out child, which is two years and two months old. She was not at home at the time of my visit, but the child was in charge of a young woman who, by her own account, lived at an infamous house. The old woman's one room is very high up a narrow corkscrew staircase, is about seven feet square, with one window that will not open. The room at the time of visit was in disorder and very dirty. The only bed was on the floor, with very dirty coverings. The child was behind the door playing with a filthy cinder pail, and was a mass of black."

Again, "I found at a town in the West of Scotland, two children who were without shoes. Children of this class in the country districts of Scotland do not on ordinary occasions wear shoes, but these two had never been to church, as they alleged, for want of them. A girl in the same place had her bed in a dark back-kitchen, flagged, and surrounded with herring tubs, potatoes, and a hog-tub with wash in it."

An ex-pauper, examined by Mr. Henley, said, "We did not get our meat (food) well or our beds. We laid in straw; no sheets, no pillow, but a pair of blankets. Three boys slept there. We did not get enough of food at any meal; we did not complain. The woman deceived the visiting officer; she showed him other things. We never complained to the inspector; the woman dared us; we were afraid. She showed the visiting officer the lodgers' beds instead of ours."

In another case, "Mrs. —— has one girl from K—— parish to board. She gets 2s. 6d. and clothing. Her sister, who is at daily service, sleeps at night in the same one room. Her own daughter, who is a convicted thief and prostitute, occasionally occupies the same room."

Mr. Henley adverts to the evidence of Mr. Adamson, the inspector of the city of Glasgow, as to two women having taken a distressing disease from the infants at the breast, and says, "these questions naturally make one consider the possible injury that might be inflicted by visiting the sins of a town population upon a rural district. It cannot be denied that many children are the offspring of scrofulous and other diseased parents; and although such children would no doubt gain health and strength by the air of the sea-coast or a country district, it is questionable whether they should be sent away from the town to merge in the country population without some precautionary check, such as a Medical certificate in the first instance. I am aware that this would be almost useless in latent diseases, but it might probably guard against the loathsome disease, to which Mr. Adamson refers, being inflicted upon a country mother and her family."

In some districts of England too the system had previously prevailed, and the poor-law inspectors were instructed to institute inquiries into its working. The three following cases show the way in which some of the foster-children were bedded:—"There are two small ill-ventilated bedrooms, each containing two beds. In one room sleep three adult women and two children. In the other sleep two young unmarried men and one young unmarried woman; she has already had one illegitimate child. The young men are themselves said to be the illegitimate sons of the 'sisters Wilcocks' (the foster-parents)." "There are two bedrooms; five, and sometimes six people sleep in one room in two beds. The boy, aged 10 years, sleeps with women and girls. When the husband is at home, another is added to these overcrowded and ill-ventilated rooms. The bedding is moderately good, but one bed was in a wet and offensive state. The bedrooms also contained some old clothes, dirty clothes, potatoes, onions, and various other articles." "There are no bedrooms properly so called; there are two sleeping places, one is a lean-to or shed, without floor, holes stuffed with rags and old clothes, no fire-place, thatch blown off in patches, snow had come through to the earth below, contains one bed, in it is a daughter, aged 17, insensible with typhus fever. Foster mother and child sleep with fever patient at night. One child just dead of fever."

It is but fair to admit that, in the above extracts, we have chosen the worst specimens. We have done so purposely. Public feeling is strongly in favour of the boarding-out system. Medical officers, who see much of workhouse children, are impressed with the desirability of getting them removed from pauper influences, and are likely to throw in all their weight, which is by no means inconsiderable, with the advocates of the system. It seems well, therefore, to call attention to such facts on the other side as may show the need for extreme caution. If, however, it be possible so to regulate the system in England as to make its extended adoption safe we shall have found a valuable means of rescuing from the pauper taint some, at least, of those now growing up around us.

Referring to the report of Mr. Henley in respect of Scotland, and to the reports of the other inspectors with regard to England, the Poor-law Board conclude this section of the report as follows:—

"Having thus accumulated a large amount of information respecting the system of 'boarding out,' we shall shortly be prepared to reconsider the whole question, and if, as we have every reason to hope, the difficulties attending the adoption of the practice in England on a more extensive scale in a regularly

organised form, though serious, are not insurmountable, it will be our duty to issue rules and regulations for its control. We quite believe that the system, if well conducted, is likely to benefit pauper children in the highest degree, but if not watched with unremitting care, abuses of a deplorable character might easily surround it, and result in moral and social evils of the greatest magnitude."

NOTES ON CHALYBEATE WATERS.

By JOHN MACPHERSON, M.D.

The following notes, though made with the view of determining the relative value of the strong Harrogate chalybeate, of which so much has been of late heard, are of a general nature, and may be useful at this season of the year.

There are exceedingly few mineral waters that contain chloride of iron in solution. Nay, it is usually supposed that chlorine has been erroneously assigned to iron by chemists, when analyses of waters would show the presence of its chloride. Besides some waters in Java being said to contain chloride of iron, that salt has also been assigned to the following ones, and in the following proportions in the Prussian pint:—

	Harrogate.	Alexisbad.	Bukowina.
	gr.	gr.	gr.
Chloride of iron . . .	1·6	1·083	0·920
Carbonate of iron . .	1·27	—	0·003
Sulphate of iron . .	—	0·574	1·966
Total iron	2·87	1·657	2·889
Total mineral constituents .	49·69	4·876	6·220
Carbonic acid . . .	2·8 in.	traces	none

These three are, therefore, undoubtedly strong iron springs; but there are others stronger, without including the almost poisonous vitriol ones, as they have been called—for instance,

	Wassenach.	Parad.	Muskau.
	gr.	gr.	gr.
Carbonate of iron . .	3·08	4·8	1·385
Sulphate of iron . .	—	—	1·526
Total iron	3·08	4·8	2·911
Total mineral constituents .	12·9	12·4	8·673
Carbonic acid . . .	traces	26 in.	traces

From these comparisons it appears that the Harrogate Muspratt well is not unique in being supposed to contain chloride of iron; that it does not contain iron in uniquely large quantity; and also, that it is by no means a pure spring, for after allowing for 22·5 grs. of common salt, which would not probably interfere much with the assimilation of the iron, it contains 27·2 grs. of other salts. Finally the quantity of carbonic acid is very trifling.

Are strong iron waters like the foregoing ones well adapted for drinking? The general voice is against them, and they are usually employed only for baths. And it may be said that, in spite of all theoretical assertions of their styptic nature, iron waters are of little use for what are popularly termed steel baths, unless they contain a great deal of carbonic acid; for the non-absorption by the skin of solutions of salts in ordinary baths seems to be definitely settled by the recent inquiries of the Société d'Hydrologie, of Paris. Still, notwithstanding the presumption against such a spring as the Muspratt one, the accounts of the Practitioners who use it are entitled to consideration. They assert that immense improvement often results from its use. Glandular swellings, low forms of gout, dyspepsia, and fatty heart, have all been found to yield to its influence. Such general statements are too often made respecting all waters, and from Dr. Myrtle's book I am much inclined to think that he has obtained at least as satisfactory results with the Tewit and the Kissingen well, containing as they do only ·14 and ·33 grain of carbonate of iron respectively. And he says of the Muspratt well, that its water must be given with much circumspection, that it is not only most difficult of digestion frequently, but is apt to cause some of the most painful physiological effects common to the ordinary preparations of iron.

If, then, general experience has shown that these strong iron waters are inconvenient for drinking, what strength of iron waters has practically been employed? Waters containing from ·35 to less than 1 gr. in the 16 oz. of the carbonate of iron, waters not containing a large amount of solid ingredients, and containing a good supply of carbonic acid—such are the waters the efficacy of which has been proved by the experience of centuries. This is well illustrated by glancing at the composition of the most popular chalybeate waters.

	Spa.	Schwalbach.	Pyrmont.
Carbonate of iron .	0·4	0·46	0·42
Other salts . . .	1·65	11·9	17·9
Carbonic acid . .	20·1	45	40 inches

Or take a few excellent wells, not perhaps so widely known. Konigswarth near Marienbad, in Bohemia, at a heighth of 2000 feet; Elster in Saxony; Bocklet, close to Kissingen; Rippoldsau, on the whole the best of the Black Forest chalybeates, at a height of 1800 feet; or Liebenstein in Central Germany, as high as Schwalbach, or about 900 feet.

	Konigswarth.	Elster.	Bocklet.	Liebenstein.	Rippoldsau.
Carbonate of iron	·65	·48	·67	·59	·67
Other salts .	5·8	16·12	24·6	10·7	20·6
Carbonic acid .	37·2	32·9	37·3	40·9	32·8 in.

All these are specimens of waters in which iron is presented in a shape rendering it easy of assimilation. I shall not enumerate the springs, such as Marienbad, or Franzensbad, or Harrogate, in which the quantity of sulphates or of common salt is so great as to make their action distinctly purgative. Two salt springs appear to have common salts in a desirable proportion. These are—

	Rakotski, Kissingen;	and Louisenwell, Homburg.
Common salt . .	44·7	23
Carbonate of iron .	·33	·33
Carbonic acid . .	41	32 inches

But even in them, and particularly in the Rakotski, there is too much common salt.

The great defect of our pure chalybeates, such as Tunbridge Wells or Llandrindod, is the want of carbonic acid to render the waters sparkling for drinking, or useful for baths. The warm chalybeates of Bagnères de Bigorre are also deficient in gas.

Perhaps the places where the best carbonated iron baths can be had are Schwalbach, Pyrmont, Liebenstein, Konigswarth, Franzensbad, Elster, and St. Moritz. I believe that the new baths at Spa are good, but they do not contain the largest amount of gas.

With reference to St. Moritz, it is probable that its curative effects depend more on its climate during three months of the year, and on its baths, than on its not powerful chalybeate. Those who are in search of stronger chalybeates than it affords would do well to go south and visit St. Caterina, at the same elevation as St. Moritz, or St. Bernardin, a few hundred feet lower, both with a large amount of carbonate of iron and of carbonic acid; or, if they will descend a little towards Italy, they will find two of the best chalybeates in existence, with a large supply of iron and carbonic acid, and minute quantities of carbonate of soda and of common salt—Rabbi at a height of about 1800 feet, and Pejo perhaps 100 feet higher. Proceeding further and fairly into Italy, he will find the more polished Recoaro, with less potent waters, however. The whole five are in beautiful scenery. The analysis of the waters of Pejo gives about 1 gr. of carbonate of iron, with carbonate of soda, 8·6; carbonate of lime, 1·8; common salt, 2·9; total mineral constituents, 15 gr.; carbonic acid, 31 inches; while Rabbi has 0·91 of carbonate of iron; carbonate of soda, 6·4; carbonate of lime, 2·3; common salt, 2·2; total mineral constituents, 12·6 gr.; carbonic acid, 29 inches. It is scarcely possible to have better combinations.

The war which has broken out since these lines were penned will compel those who will not venture into Switzerland and the Tyrol to make the most of our own chalybeates. At their head in England stand Tunbridge Wells and Harrogate, Llandrindod in Wales, Lisdunvarna in Ireland. Pannanich Wells, near Ballater, is almost the only chalybeate in use in Scotland. A host of such springs were formerly in repute in the three kingdoms.

35, Curzon-street, Mayfair.

The Apothecaries' Hall of Ireland. — At a meeting of the General Council of the Apothecaries' Company, convened in pursuance of the statute, upon August 1, 1870, the following office-bearers were duly elected for the ensuing year:—Governor: Arthur Harvey, Esq.; Deputy-Governor: Robert Montgomery, Esq.; Court of Directors and Examiners: Thomas Collins, Joseph Dirham, Charles Holmes, Charles H. Leet, Charles F. Moore, Henry P. Molan, Jerome O'Flaherty, Edward J. O'Neill, George B. Owens, John Ryan, James Shaw, John Shea, and George Wyse, Esqs.; Examiners in Arts: George Atkinson, M.B. Dub., and John William Moore, M.B. Dub., Ex-Sch. T.C.D.; Representative in the General Medical Council: Dr. Leet.

REVIEWS.

Grundzüge der Zoologie, zum Gebrauch an Universitäten und höhern Lehranstalten. Leitfaden zur Einführung in das wissenschaftliche Studium der Zoologie. Von Dr. Carl Claus, Professor der Zoologie und Director des zoologischen Institutes an der Universität Marburg. 1868. Pp. xxviii., 840. Marburg: Elwert. London: Williams and Norgate.

Elements of Zoology, designed for Universities and Lyceums. By Dr. Claus.

Natürliche Schöpfungsgeschichte. Von Dr. Ernst Haeckel, Professor an der Universität Jena. 1868. Pp. xvi., 568. Berlin: Reiner. London: Williams and Norgate.

The Natural History of Creation. By Dr. Haeckel.

Ueber die Entstehung und den Stammbaum des Menschengeschlechts. Zwei Vorträge, von Dr. Ernst Haeckel. 1868. Pp. 80. Berlin: Lüderitz. London: Williams and Norgate.

On the Origin and Pedigree of the Human Race. By Dr. Haeckel.

L'Ordre des Primates et le Transformisme. Par M. E. Dally. 1868. Pp. 41. Paris: Reinwald. London: Williams and Norgate.

The Order of Primates and the Doctrine of Transformation. By M. E. Dally.

L'Homme Fossile en Europe, son Industrie, ses Mœurs, ses Œuvres d'Art. Par H. Le Hon. Deuxième édition. 1868. Pp. 436. Paris: Reinwald. London: Williams and Norgate.

Fossil Man in Europe. By H. Le Hon. Second Edition.

All the books that we have grouped together in the heading of this article bear more or less on the same subject—namely, the origin of man—and there is not one in the whole list that is not deserving of careful study, although some of them, and notably the works of Haeckel, contain many views and opinions with which we cannot wholly coincide.

We shall notice these books in the order in which we have placed them, and shall consequently begin with the consideration of Professor Claus's "Elements of Zoology." In a very ably written and philosophical introduction, extending over twenty-eight pages, the author discusses the differences between organic and inorganic matters, the distinctions between animals and plants in relation to their general form and organisation, the nature of their respective tissues, their modes of propagation, their chemical constituents and metamorphoses, and voluntary motion and sensation; and concludes with an historical survey of our zoological knowledge from the time of Aristotle to the establishment of the Darwinian theory. The body of the work begins with a chapter on the organisation and development of the Animal generally, in which he treats of the lowest and most simple forms of animals, the differentiation of organs, the distribution of labour (Milne-Edwards's theory), the development of the vegetative organs, as those of nutrition, respiration, circulation, and secretion, and that of the animal organs, as locomotion, sensation, and the special senses, from the lowest to the highest organisms, and the various forms of generation and development, including the metamorphoses of animals and the alternation of generations. The systematic portion, constituting the essential part of the volume, now commences. Dr. Claus arranges the whole animal kingdom under the following types:—1. Protozoa; 2. Cœlenterata; 3. Echinodermata; 4. Vermes; 5. Arthropoda; 6. Mollusca; and 7. Vertebrata.

As an illustration of the mode in which Dr. Claus treats the various classes of animals, we will turn to the cephalopods, which form the sixth class of the type Mollusca. In an initial foot-note he gives the literature of the subject. The definition of the cephalopods being given, he proceeds to describe their external appearance, their funnel, the nature of their outer covering in different orders (whether naked or provided with a shell), the internal cartilaginous system occurring in the higher forms, their digestive organs, their nervous system and organs of special senses, their respiratory organs, vascular system, excretory organs (including the ink-sac), their generative system, and the size which they sometimes reach in tropical seas. In his remarks on their generative system, regarding which much remains to be cleared up, he notices in considerable detail the different views that have been entertained by various eminent zoologists regarding the great Hectocotylus question. The two orders of cephalopods—viz., the Tetrabranchiata and Dibranchiata—are then considered; their literature is given in foot-notes, they are clearly defined, and the definition is succeeded by a notice of the anatomical peculiarities of each order. Finally, the sub-orders and families are named and briefly described.

The consideration of the vertebrata occupies the greater part of the last half of the volume. The highest class—the mammalia—is divided into fourteen orders, extending from the Monotremata up to the Pitheci, or apes: Man having a special final chapter devoted to his consideration. In this chapter, which is one of great value, the claim of Man to be placed in a special order is fully considered, the points of anatomical difference between man and the anthropoid apes are discussed, the evidence of the antiquity of man is briefly pointed out, and the chapter—and with it the volume—terminates in a short description of the Caucasian, Mongolian, Æthiopian, American, and Malay races, and the countries which they inhabit.

We are not acquainted with a zoological treatise in any language that contains, in a single, moderate-sized, and excellently printed volume, so complete a summary of the natural history of the whole animal kingdom as that of Dr. Claus; and we welcome it as a valuable contribution to our zoological knowledge.

Professor Haeckel's name and reputation are known to all naturalists. His splendidly illustrated monograph on the *Radiolaria*, though too costly for the ordinary purchaser, is to be found in every scientific library having any claim to completeness, while his *Generelle Morphologie der Organismen*, "based upon Charles Darwin's reformed *Descendens-Theorie*," as he states on the title-page, is a most valuable contribution to philosophical zoology. His *Natural History of Creation* is no way inferior in point of talent to his *General Morphology*. It consists of a series of twenty lectures which he delivered before a general audience in Jena in the winter of 1867-68, in which he discusses "the theory of development in general, and those of Darwin, Goethe, and Lamarck in particular, and their application to the origin of man and other essential questions connected with it." He is, without exception, the most ardent Darwinian that we ever met with. He speaks of the appearance of "The Origin of Species" as constituting a scientific epoch, of Darwin "having established his theory on the apex of our *Naturerkenntniss*," and describes the "theory of selection of the English Darwin as worthy of being associated with the theory of gravitation discovered by his illustrious countryman, Newton." In short, he out-Darwinises Darwin himself, and traces the origin of man, as we shall presently show, through a complete family tree, of twenty-one descents, from the *Monera*, the simplest form of animal life, to the speechless men, or anthropoid apes, from whom speaking men, as now represented by the Alfuros and Papuans, is descended. The earlier lectures (from the first to the fourteenth) treat of the purport and significancy of the theory of descent, the scientific claims of this theory, the views of Linnæus regarding the origin of species, the history of creation according to Cuvier and Agassiz, the theory of development according to Goethe and Oken, to Kant, Lamarck, Lyell, and Darwin, the theory of selection (or Darwinism) or hereditary and parental descent (as distinguished from equivocal generation), the alternation of generations or metagenesis, atavism, hybridism, adaptability and variation, the struggle for existence, the development of the earth and of its earliest inhabitants, the periods and records of creation, and many other important subjects.

The next five lectures—the fifteenth to the nineteenth inclusive—are devoted to the elaboration and history of the genealogical tables, or family trees (*Stammbäume*), on which Dr. Haeckel specially delights to dwell. To those who are not acquainted with our author's peculiar views of classification as laid down in his *General Morphology of Organisms*, many of the terms introduced into these lectures will be more or less puzzling. To the simplest conceivable organisms—very minute living corpuscles—he gives the name of *Moncra*. They consist of amorphous, movable bits of mucus, composed of an albuminous matter, and occur both in fresh and salt water. The simplest form of Amœba may be taken as representative of the Monera. These Moncra may be vegetable, neutral, or animal, according to which they respectively form the bases of the vegetable, the protistic, and the animal kingdoms. The *Protista*, or Primordial organisms, which form the intermediate kingdom, contain the eight following groups:—1. The now living *Monera*; 2. The *Amœboids* or *Protoplasta*; 3. The *Flagellata*, so called from the cell of which the organism consists having one or more whip-like processes; 4. *Myxomycetes*, or mucus-fungi, which, till de Bary's discovery ten years ago, were regarded as belonging to the vegetable kingdom; 5. The *Labyrinthuleæ*, which are yellow, spindle-shaped cells, uniting to form a net-like skeleton of labyrinthic ropes, and found attached to posts immersed in sea-water; 6. The *Diatomeæ*, or Diatoms; 7. The *Noctilucæ*; and 8. The *Rhizopoda*, which he arranges in three "legions." The first is the *Acyttaria*, consist-

ing of simple mucous plasma, not differentiated into a cell, but commonly surrounded by a calcareous shell consisting of one or many chambers, and thus forming the *Monothalamia* and *Polythalamia*, generally known as the *Foraminifera*. The celebrated *Eozoon canadense* belongs to this group. The second "legion" of the *Rhizopoda* is now represented by a single genus, the *Actinophrys*, or sun-animalcule. The third "legion," in its lowest forms, closely resembles the preceding group, but differs from it, essentially in this respect, that the central part of the body is composed of an aggregate of cells enveloped by a dense membrane.

As this history of the protistic kingdom is probably in a great measure new to most of our readers, we shall enter into a few of the details regarding its members which are given in Haeckel's pages. In their vital phenomena, especially in relation to nutrition and propagation, some of the Protista approximate to plants and others to animals. Many of them possess the power of locomotion, while others are fixed. Next comes a somewhat startling assertion. "All the Protista possess a soul (eine Seele), as do all animals and all plants. The soul appears in many of the Protista to be capable of very delicate perception; at all events many of them are highly susceptible of irritation. The will, on the other hand, appears to be only weakly developed in most of them, and whether any of these organisms can possess an independent faculty of thought is very doubtful. But the faculty of thought is equally absent in many of the lower animals, while many of the higher animals think as clearly and often show more capacity for deduction than many lower human beings." For further details regarding this third primary division, which includes those simple organisms which the botanist and zoologist regard as doubtful property, we must refer to Haeckel's fifteenth lecture.

The subject of Philogeny, or Evolution, in the vegetable and animal kingdoms occupies the next four lectures, but it would not be easy to make the author's views intelligible in a short space, without the aid of his marvellous diagrammatic trees. If the reader had Plate III. before him, he could readily understand how Professor Haeckel gradually transforms his animal Monera into far higher animals, even the highest. The Monera, after having passed through the amœbal and infusorial stages, separate into two stirpes A and B, the former becoming the worms and the latter the sponges. B (the simpler of the two) progressively gives rise to the various forms of *Cœlenterata*, while A gives origin to all other forms of animals. A soon subdivides into secondary stirpes, of which one divides into C, which becomes the root of the *Annelida*, *Rotifera*, and *Echinodermata*, and D, which gives rise to the *Arthropoda*; while the other, having given rise to the *Polyzoa*, divides itself into E, the root of the *Mollusca*, and F, the root of the *Vertebrata*. Our space forbids us from entering into further details regarding the diagram referred to, but we may remark that notwithstanding the wonderful investigations of Kowalewsky, which have been noticed in several of our scientific journals, we think it will be a long time before the author can convince us that the origin of the Vertebrata is to be sought amongst the Ascidians.

We shall conclude our remarks on this most remarkable volume by fulfilling our promise of tracing Man from the Monera. Professor Haeckel divides the earth's history, in so far as organic phenomena are concerned, into five great periods —viz.: 1. The Archolithic or Primordial Period, extending from the Antelaurentian to the Silurian Period. 2. The Palæolithic or Primary, extending from the Antedevonian to the Permian Period. 3. The Mesolithic or Secondary, extending from the Antetrias to the Chalk. 4. The Cainolithic or Tertiary, extending from the Anteocene to the Phiocene Period; and 5. The Quaternary or Recent, including the Diluvial and Alluvial periods. In the first period the Monera were developed by eleven stages, through Infusoria, Turbellaria, Vermes, Leptocardia, etc., into Selacian or shark-like fishes; in the second they passed through three stages and attained the dignity of a Triton; in the third they passed through three stages, represented by more highly developed reptiles, then Monotremata, and finally Marsupial animals; in the fourth they passed through four stages, represented by the prosimiæ (as the lemur), the monkeys, the anthropoid apes, and speechless man (now represented by deaf persons, crétins, and microcephali); while in the present epoch we have the twenty-second form of evolution—namely, speaking man, represented by the Alfuros and Papuans. For the details and explanation of this wondrous pedigree we must refer to pages 502-7 of this remarkable work.

The second of the works of Haeckel standing in the list at the head of this article is a pamphlet of 80 pages, consisting of two lectures "on the origin and pedigree of the human race," comprising in an abbreviated form the substance of several of the lectures contained in his larger work. We may incidentally remark that this pamphlet forms one of a collection of "scientific lectures" edited by Dr. Rud. Virchow and Dr. Franz v. Holtzendorff, which contains a large number of valuable essays by the most distinguished German authors, and deserves to be better known than it is in this country.

The object of M. Dally's memoir (which is reprinted from the *Bulletin de la Société d'Anthropologie*) is to prove that, in an anatomical point of view, the differential characters of the families of apes and monkeys included in the order of *Quadrumana* are more considerable than the differential characters of the various races of man on the one hand, and of the apes and monkeys taken *en bloc* on the other. So that if the apes and monkeys legitimately constitute an order of the class *Mammalia*, the races of man should form part of that order; while if the races of man form a special order, the apes and monkeys should be divided into several orders. Consequently, if we can by hypothesis assign to the different groups of these animals one common origin, there is no reason why "the benefit of the same hypothesis should not be extended to the races of man, and that the human and simian groups should not be referred to the same source." Without pledging ourselves to adopt M. Dally's views, we must admit that he has argued his case in a fair and logical spirit. We may add that his doctrine of *transformism* is not to be confounded with Darwinism, and is nearly, if not quite, identical with Professor Owen's hypothesis of derivation.

The principal claim of M. Le Hon's beautifully illustrated volume to be associated with the other works considered in this article lies in the appendix, which contains a valuable essay by Professor Omboni "On the Theory of Darwin." It is divided into four chapters discussing (1) the origin and the variability of our domestic races; (2) species and wild varieties; (3) variability of wild species and their origin from the concurrence of the struggle for existence and natural selection; and (4) objections that have been urged against the Darwinian theory. Professor Omboni's views on Darwinism may be readily inferred from the following sentence. "In conclusion, this theory explains many facts which on other hypotheses or theories would have remained obscure or totally inexplicable; while the objections that have been urged against it, are readily disposed of when the new theory is duly considered in its various aspects."

To those of our readers who take an interest in archæology and anthropology, we can warmly recommend M. Le Hon's "Fossil Man in Europe." It is divided into two parts, of which the first is devoted to the antiquity of the human race, the great glacial period, man contemporary with the hairy elephant, the mammoth, and the cave-bear, and the ages of stone, bronze, and iron; whilst the second treats of the "influence of cosmical laws" in inducing the great changes which the earth has undergone, such as the precession of the equinoxes, the variation of the eccentricity of the earth's orbit, the variation of the obliquity of the ecliptic, oscillations of the soil, etc. A translation of a book with a very similar title, compiled by M. Figuier, has lately been published. From what we know of that voluminous author's former works, we cannot help regretting that M. Le Hon's "Fossil Man" had not been chosen in its place.

NEW BOOKS, WITH SHORT CRITIQUES.

Handbuch der Gerichtlichen Chemie. Von F. L. Sonnenschein, Phil. Dr., Docenten der Chemie an der Universiter zu Berlin, etc. 1869. Berlin: Hirschwald. London: Williams and Norgate.

Manual of Medico-legal Chemistry. By Dr. Sonnenschein. With six plates. 8vo. Pp. 564.

*** This is one of the most important contributions to our knowledge of Medical Jurisprudence that has appeared for several years, and will probably serve for some time as the chief text-book in the departments of which it treats, in all countries in which the German language is studied. It is divided into two parts—the first and most bulky treating of toxicological investigations, while the second deals with chemical and microscopical inquiries which are included in Medical Jurisprudence but have no reference to poisons. The latter part is of the most general interest, and treats of a large number of subjects, including the detection of blood-stains in criminal cases, the recognition of hairs and spots of seminal fluid, the analysis of dangerous quack medicines, the means of ascertaining whether writing has been tampered with, the application

of chemistry to false coinage, the investigation of suspicious cases of incendiarism and of firearms (with the view of ascertaining if they have been recently discharged, etc.), and the detection of human remains in cases of destructive fires. This part concludes with a number of sections on the means of ascertaining the purity and adulterations of air, water, our most essential articles of food and drink, and of fabrics used for clothing; the last subject that is discussed being the dangers arising from the use of vessels, dishes, etc., of various metals in cookery. We would especially commend to the attention of our readers the sections on wine, beer, flour, milk, and butter.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

August 1.

The epidemic of relapsing fever in this town continues to increase, the number of patients suffering from the disease in the parish Fever Hospital, on Saturday, July 30, being 240, as against 180 on the previous Saturday. There is as yet no increase of typhus. Indeed, there was one case less remaining in the house on the latter than on the former day. The numbers for simple continued and typhus fever respectively are as follows:—July 30, simple continued fever 52; typhus 36. July 23, simple continued fever 43; typhus 37. During the week there were two deaths from typhus. Two infants also, born of patients suffering from the disease, died. As yet there has been no mortality from relapsing fever.

Owing to the great pressure on the available space at the workhouse, the parish authorities have to-day opened some sheds that were erected during the cholera epidemic of 1866. They are situated in Ashfield-street at the north end of the town, the part inhabited by the poorest and lowest part of the population. These sheds will accommodate seventy patients, and are open for their reception from an early hour up to seven p. m. They are placed under the Medical charge of Dr. Robert Robertson.

There appears to be no connexion between the outbreak of relapsing fever and a condition of want, as inquiries made by Dr. Kirkpatrick, under whose special care the patients in the Hospital are placed, have shown that in almost every case there has been a sufficiency of food at the time of the attack. A comparatively small number of the cases, about 8 per cent., exhibit jaundice as a symptom. The temperature during the febrile stages averages 102° or 103° Fahr. In one case it reached 107° Fahr., though it quickly declined from this.

Energetic measures are being adopted by the Health Committee of the Town Council, on the urgent recommendation of Dr. French, for the purification of courts and alleys, and the flushing of sewers, etc., with a solution of carbolic acid, with a view to prevent, or at least to mitigate the virulence of, the outbreak of typhus, which is expected to follow that of the less fatal relapsing fever.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, MAY 27.

Mr. PAGET, President, in the Chair.

THREE reports were read:—1. By Mr. CALLENDER and Mr. KESTEVEN, "On the Action of Copper upon the System." 2. By Dr. BÄUMLER, Dr. DUFFIN, and Mr. BERKELEY HILL, "On Oscillations of Temperature in Syphilis." 3. By Dr. MURCHISON, Dr. SYMES THOMPSON, and Dr. HERMANN WEBER, "On the Effects of Quinine upon the Temperature in Pyrexia." These reports, which contained very important and novel information, will appear in the forthcoming volume of the Society's *Transactions*.

Dr. OPPERT showed a patient affected with Hydatid Disease of the Loin. The man was himself in the habit of squeezing out cysts through an opening which had formed in the skin over a prominent part of the tumour.

Dr. MURCHISON said the main point of interest was whether the opening was natural or artificial.

Mr. PAGET read a case of Necrosis of the Femur without External Inflammation. An oval swelling six inches in length had appeared in the shaft of a girl's femur, firm and somewhat tender on pressure but without heat or any affection of the textures covering it. Treatment with rest and iodide of potassium having produced little or no alteration in three months, an incision was made over the swelling, and the periosteum, much thickened, divided, exposing a cavity containing a thin rough sequestrum derived apparently not from the outermost layers of the femur but from layers just within them. The central point of interest in the case was the fact of necrosis leading to separation of bone being unattended with inflammation of any of the textures external to the periosteum, or with more than a scarcely discernible amount of suppuration around the sequestrum. Mr. Paget added a suggestion that certain loose cartilages in joints may be really due to a necrosis following an injury, death and separation of a bit of bone occurring without inflammation of adjacent textures.

Mr. BARWELL brought forward four additional cases illustrating his method of treating local paralysis by subcutaneous injection of concentrated solution of strychnia. Some of these cases were so managed as to serve experimental purposes. All solutions were of the strength of 2 grs. to 100 minims. Of these doses, beginning in the first case at one ½ minim, and increasing in that and other cases to twelve ½ minims, were employed. The first solutions had been neutralised by magnesia, in others the fluid was allowed to remain acid; in one case injection of twelve ½ minims was followed by general effects, in another in which ten ½ minims produced no general symptoms, the injection of seven ½ minims into two different places was followed by slight twitching. From this Mr. Barwell argued that neither chloride of magnesium nor acid exercised any protective influence, but that the concentrated form of solution was the sole condition of safety, since the surface for absorption was so small. In all cases a certain amelioration, in one (besides that previously related) a very marked improvement, followed rapidly the use of the drug.

Dr. BUZZARD mentioned the case of a patient in whom, a few days previously, the hypodermic injection of $\frac{1}{30}$th grain of strychnia (Pharm. solution) had been followed by spasm of the jaws.

Dr. GOODFELLOW brought before the Society a Case of Paraplegia. A washerwoman, æt. 45, while in her usual health, which was good, was suddenly seized, on April 29, with complete motor paralysis of the lower extremities, and incomplete loss of sensation. At the time of seizure, she felt a "shock" pass through her back, and severe "stabbing" pain in and below the seat of shock. There was no fever, and her intelligence was unaffected. She remained in this state until May 6, when the upper extremities became benumbed, and the motor power much diminished. These symptoms gradually became worse, until the 10th, when great difficulty of breathing supervened. She rapidly sunk, and died, seemingly of apnœa, on the following day. On post-mortem examination, the cord was found to be almost diffluent in two places—in the situation of the third cervical and the third dorsal vertebræ. The paralysis and softening seemed to be due to extensive thrombosis of the arteries and smaller vessels, seemingly by coagulated fibrine. No evidence of vegetations on the valves of the heart could be detected.

The Society then adjourned till October 14.

THE MEDICAL OFFICERS' SUPERANNUATION BILL.

THE following is the text of this Bill as amended and agreed to by both Houses of Parliament:—

A BILL [AS AMENDED ON REPORT] INTITULED AN ACT TO PROVIDE FOR SUPERANNUATION ALLOWANCES TO MEDICAL OFFICERS OF UNIONS, DISTRICTS, AND PARISHES IN ENGLAND AND WALES.

Whereas it is expedient that provision should be made to enable superannuation allowances to be granted to Medical officers of unions, districts, and parishes in England and Wales, who become disabled, either by infirmity or age, to discharge the duties of their offices:

Be it therefore enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. That the board of guardians of any union or parish, and the board of management of any district, may, at their dis-

erection, with the consent of the Poor-law Board, grant to any Medical officer of such union, district, or parish an annual allowance, under and subject to the provisions of the Act to provide for supperannuation allowances to officers of the unions, passed in the twenty-seventh and twenty-eighth year of the reign of Her Majesty, chapter forty-two, notwithstanding such Medical officer shall not have devoted his entire time to the services of the union, district, or parish, and such allowance shall be paid out of the common fund of the union or district, or out of the poor-rate of the parish, as the case may require, exclusively, and no contribution shall be made therete out of any moneys voted by Parliament.

2. No pension shall be obtained by any officer under this Act on the ground of permanent infirmity of mind or body unless the poor-law inspector of the district, or some person in that behalf authorised by the Poor-law Board, shall have first certified that in his opinion such officer has by reason of such infirmity become incapable of performing the duties of his office with efficiency.

3. This Act may be called "The Medical Officers' Superannuation Act, 1870," and shall be construed in like manner as in the Poor-law Amendment Act, 1834, and the subsequent Acts extending or amending the same.

MEDICAL NEWS.

University of London.—The following are lists of the candidates who have passed the recent examinations in Arts and Science:—

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.

First Division.

Baber, Edward Cresswell, St. George's Hospital.
Barrow, Albert Boyce, King's College.
Batterbury, George Henry, King's College.
Carpenter, Philip Herbert, University College and Royal School of Mines.
Crétin, Eugène, St. Bartholomew's Hospital.
Groves, Henry Joseph Firth, Guy's Hospital.
Hetley, Henry, Guy's Hospital.
Keetley, Charles Robert Bell, St. Bartholomew's Hospital.
Kennedy, Edward, B.A., Manchester Royal School of Medicine.
Lewtas, John, Liverpool School of Medicine.
Magrath, John, University College.
Roth, Bernard Mathias Simon, University College.
Shuter, James, St. Bartholomew's Hospital.
Vines, Sydney Howard, Guy's Hospital.
White, Ernest William, King's College.

Second Division.

Dodson, Andrew, Queen's College, Birmingham.
Garlick, George, University College.
Hamilton, Francis George, St. Bartholomew's Hospital.
Harris, Vincent Dormer, St. Bartholomew's Hospital.
Hullard, Jean Arthur, University College.
Jones, Arthur Henry, private study.
Lamb, William Henry, Guy's Hospital.
Maclean, Thomas Edwin, University College.
Madden, Edward Monson, King's College.
Morley, Thomas Simmons, private study.
Notley, William John, B.A., University of Edinburgh.
Palmer, Frederick John Morton, Guy's Hospital.
Price, Henry Elthington, University and Regent's-park Colleges.
Rigby, James Arthur, Guy's Hospital.
Rogers, Thomas King, University College.
Sawtell, Tom Henry, St. Bartholomew's Hospital.
Schofield, Robert Harold Ainsworth, B.A., Owens College.
Taylor, John William, Charing-cross Hospital.
Wackerbarth, Edward, University College.

FIRST B.SC. EXAMINATION.

First Division.

Carpenter, Philip Herbert, University College and Royal School of Mines.
Hick, Thomas, B.A., private study.
Lowe, John Landor, King's College.
Lyell, Leonard, University College.
Roth, Bernard Mathias Simon, University College.
Scott, Robert Forsyth, University College.

Second Division.

M'Lean, Charles Stuart, B.A., Wesleyan College, Taunton.
Monckman, James, private study.
Price, Henry Elthington, University and Regent's-park Colleges.
Rowland, William Watson, B.A., University College.

Royal College of Physicians of London.—At the quarterly meeting of the College on the 28th ult., the following gentlemen, having passed the required examination, were admitted as Members:—

Baxter, E. Buchanan, M.B. Lond., Clifton Chambers, Gate-street, W.C.
Fenwick, T. C. J., M.B. Cantab., 63, Coleshill-street, Eaton-square, S.W.
Kelly, Charles, M.D. Lond., 94, Wimpole-street, W.
Roberts, Frederick Thomas, M.B. Lond., 12, Elgin-crescent, Kensington-park.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on July 21, and when eligible will be admitted to the Pass Examination:—

Butler, Francis W., student of Westminster Hospital.
Cripps, William H., of St. Bartholomew's Hospital.
Crouch, E. J., of Charing-cross Hospital.
Edwards, Alfred, of University College.
Fagg, T. H., of Guy's Hospital.
Iredell, C. L. M., of St. Bartholomew's Hospital.
Morris, John, of Guy's Hospital.
Spurgin, William H., of Guy's Hospital.
Wade, R., of St. Bartholomew's Hospital.

The following gentlemen having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on July 28:—

Battersby, William E., M.B., Killarney, student of Dublin School.
Browne, Henry Wm. L., West Bromwich, of Birmingham General Hospital.
Clarke, Joseph Hirst, Sheffield, of Sheffield School.
Dixon, Henry Edward, Watlington, Norfolk, of Guy's Hospital.
Harding, Alfred William, Percy-street, W.C., of University College.
Hardman, William, Blackpool, of University College.
Hibberd, Henry Jukes, Peckham, of Guy's Hospital.
Hollinshead, Francis, Coventry, of Birmingham General Hospital.
Hunt, Joseph, Hopwood Allchurch, of Birmingham General Hospital.
Lovell, Francis Ottley, Kilburn, of St. George's Hospital.
Lloyd, Thomas Llewellyn, Wrexham, of Birmingham General Hospital.
Macau, Jameson John, Cheam, Surrey, of St. Bartholomew's Hospital and Cambridge.
Mitchell, Alexander, Birmingham, of Birmingham General Hospital.
Ravenhill, Edmund Burton, Arlingham, of Birmingham General Hospital.
Rigden, Walter, L.S.A., Canterbury, of University College.
Vickers, Charles William, L.S.A., Huddersfield, of London Hospital.

At the same meeting, Mr. Bernard John Shaw, L.S.A., Attercliffe, Yorkshire, who passed his Examination in Surgery on May 3 last, having since obtained a Licence in Medicine recognised by the College, was also admitted a Member. Four candidates passed in Surgery, and when qualified in Medicine will be admitted Members of the College. The following gentlemen were admitted Members on July 29:—

Bailey, Henry Bennett, L.S.A., Sutton St. Edmund's, Lincolnshire, student of Guy's Hospital.
Clay, Charles, Dewsbury, Yorkshire, of King's College.
Eagar, Robert T. S., Audenshaw, near Manchester, of Manchester and Edinburgh Royal Infirmaries.
Fenton, George, L.S.A., Great Smith-street, S.W., of Westminster Hospital.
Hudson, Hubert Ernest, L.S.A., Cranbrook, Kent, of Guy's Hospital.
Lovejoy, William Henry, M.D. New York, Portman-street.
O'Farrell, George Plunkett, M.D. Dublin, Boyle, county Roscommon.
Plowright, Charles Bagge, L.R.C.P. Edin., North Wotton, Norfolk, of Glasgow School.
Smith, Arthur William, L.S.A., Halifax, of Guy's Hospital.
Smith, Charles Wait, Jamaica, of St. Bartholomew's Hospital.
Thorpe, George E. K., L.S.A., Sheffield, of Guy's Hospital.
Times, Lawrence Kingston, Manchester-street, W., of University College.
Tothill, Thomas H. F., L.S.A., Topsham, Devon, of St. Bartholomew's Hospital.
Warburton, Edmund S., L.S.A., Betley Crewe, Staffordshire, of Liverpool and King's College.
Wilson, George, L.S.A., Claverton-street, S.W., of University College.

Four candidates passed in Surgery, and when qualified in Medicine will be admitted Members of the College.

Dental Surgeons.—The following candidates having passed the necessary Examination received the Diploma in Dental Surgery at a meeting of the Board of Examiners on August 2:—

Bartlett, Edward, Connaught-square, W.
Bartlett, William, Connaught-square, W.
Clark, Charles Lane, Harley-street, W.
Ebbetts, Francis F., Tottenham.
Forster, George Graham, Durham.
Lyons, Isidore Isaacs, St. John's-wood.
Rogers, Charles Claude, Cork-street, Burlington-gardens.
Tuck, Richard William H., Truro, Cornwall.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their first Professional examinations during the July sittings of the examiners:—

Behrendt, M. R. J., Prussia.
Findlater, James, Newmilns.
Higham, Thomas, Manchester.
Jackson, William, .
Lowe, James Henry, Edinburgh.
Mackensie, Alexander, Kelso.
Monty, S. A. R., Mauritius.
Quarry, Charles, Clonakilty.
Stafford, John F., Wexford.
Williams, Ed., Mold, North Wales.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh:

Adams, John Blake, Cork.
Barclay, Francis, Hawick.
Bell, Henry, Groomsport.
Birrell, William, Fifeshire.
Davies, Enoch, Cardiganshire.
Dewhurst, William, Lancashire.
Drew, Henry Wm., Cape of Good Hope.
Farrar, Joseph, Yorkshire.
Fitzmaurice, Nicholas Fitzhenry, Skibbereen.
Furnell, Frederick W., Limerick.
Hanifin, Daniel, Milltown.
Hawkes, Samuel, Cork.
Husband, John, Cupar-Fife.
Kenny, Joseph Edward, Dublin.
Matthew, Alexander, Cupar-Fife.
Niall, Eugene Hayes, co. Clare.
Ormsby, John, Dublin.
Pearson, George, Coldstream.
Reid, John Henry, co. Down.
Schuster, Edwin, Lancashire.
Swayne, Charles Henry, Carrick-on-Shannon.
Wilkinson, Thos. Marshall, Metheringham.
Wood, Wm. Thomas, Edinburgh.
Yeld, Horace Parr, Carlisle.

Royal College of Surgeons, Edinburgh.—The following gentlemen passed their final examinations, and were admitted Licentiates of the College during the July sittings of the examiners:

Dobbin, John, co. Armagh.
Craig, Archibald, Lanarkshire.
Kunde, Hermann, Coeslin, Prussia.
Leigh, Thos. L., Huntingdonshire.
Macfie, Charles, Bute.
Menzies, James Alex., Perthshire.
Priestley, Henry, Sheffield.
Stokes, John Frederick, co. Dublin.
Wotherspoon, Thomas Allan, Edinburgh.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 28, 1870:—

Chalmers, Robert, Glasgow.
Madeley, Edward, Kensington.
Smith, Edwin, Birmingham.
Southee, Henry Edward, Canterbury.

As Assistants in Compounding and Dispensing Medicines:—

Griffein, Thomas, Bromley, Kent.
Jones, John, Walworth-road.
Williams, John Havard, St. George's-place, S.W.

The following gentlemen also on the same day passed their First Professional Examination:—

Brindley, Philip, University College.
Deakin, C. W. S., University College.
Edmundson, T. R., Guy's Hospital.
Fosbroke, G. H., Westminster Hospital.
Harris, J. D., St. Bartholomew's Hospital.
Maybury, W. A., St. Thomas's Hospital.
Paterson, R. H., Guy's Hospital.
Watson, J. W., University College.
Wheeler, D. M. B., Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BROWNE, Mr. EDGAR A.—Demonstrator of Anatomy at the Liverpool Royal Infirmary School of Medicine.

CLAPTON, E., M.D., F.R.C.S.E.—Physician to St. Thomas's Hospital, *vice* Dr. Goolden, resigned.

ORANGE, W., M.D., M.R.C.P.—Medical Superintendent of the Broadmoor Criminal Lunatic Asylum, *vice* J. Meyer, M.D., F.R.C.P., deceased.

POWER, HENRY, F.R.C.S.—Ophthalmic Surgeon to St. Bartholomew's Hospital.

VERNON, B. J., F.R.C.S.—Ophthalmic Surgeon to St. Bartholomew's Hospital.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—The undermentioned officers have been promoted to the rank of Staff Surgeon in her Majesty's Fleet:—Dr. George Mason, with seniority of July 8, 1870; Dr. Robert Irvine, with seniority of July 13, 1870.

ROYAL ARTILLERY.—Staff Assistant-Surgeon George Nicol Irvine, M.D., to be Assistant-Surgeon, *vice* Alexander Stevenson Russell, M.D., deceased.

BIRTHS.

BRISTOWE.—On July 30, at 11, Old Burlington-street, the wife of Dr. Bristowe, of a daughter.

CONSTANT.—On June 19, at Umballa, East Indies, the wife of F. G. Constant, M.D., 12th Bengal Cavalry, of a son.

KENDAL.—On July 12, at Wark, North Tyne, the wife of C. R. Kendal, Surgeon, of a daughter.

MEAD.—On July 25, at Bridge House, Christchurch, Hants, the wife of H. T. Harvey Mead, M.R.C.S., of a daughter.

PERCIVAL.—On July 14, at Ash-grove, Knottingley, the wife of T. Percival, Surgeon, of a son.

PHILPOTS.—On July 25, at 36½, Warwick-street, Leamington, the wife of E. P. Philpots, M.D., of a daughter.

RICE.—On July 27, at 4, Clarendon-crescent, Edinburgh, the wife of Dr. M. W. Rice, 8, Sloane-terrace, S.W., of a daughter.

WAHLTUCH.—On August 1, at 280, Oxford-street, Manchester, the wife of Adolphe Wahltuch, M.D., of a son.

WHITEFIELD.—On July 30, at Elm-villa, Eastbourne, the wife of Arthur Whitefield, Surgeon, of a son.

WICKSTEAD.—On July 31, at Field House, Walthamstow, the wife of Francis Wickstead, Esq., Surgeon, of a son.

WILLIAMS.—On July 26, at Broomfield Swinton, near Manchester, the wife of John Williams, M.D., of a daughter.

MARRIAGES.

ALDRIDGE—STEET.—On July 28, at St. Stephen's Church, Hampstead, Joseph, only surviving son of Charles Wm. Aldridge, Esq., of Myddelton-square, to Elizabeth, eldest daughter of G. C. Steet, F.R.C.S., of Hampstead. No cards.

BARRACLOUGH—GRITTEN.—On July 25, at St. Gabriel's, Pimlico, George Barraclough, M.A. Cantab., M.R.C.S., of West Brompton, to Mary Jane Julia, eldest daughter of H. F. Gritten, Esq., of St. George's-road, Pimlico, and Buckingham-street.

CONRY—PICKARD.—On July 26, at St. George's Church, Stonehouse, Devon, Thomas Coury, Assistant-Surgeon R.N., to Isabella Mary, daughter of Colonel Pickard, R.M.L.I.

EADE—OAKSHOT.—On July 26, at the Parish Church, Oystermouth, Swansea, Charles Hugh Eade, M.R.C.S., L.R.C.P., of Oystermouth, son of the late Charles Ray Eade, of Great Ealing, Surgeon, to Madeline Octavia, only daughter of John Oakshot, Esq., J.P., of Glyndderiven, near Swansea.

EDGELOW—STEPHEN.—On July 22, at St. Stephen's Church, Guernsey, George Edgelow, M.D., to Lucy Sarah Stephen, eldest daughter of the late A. Stephen, of Barnstaple.

HONE—MONRO.—On July 28, at All Souls' Church, Langham-place, the Rev. Evelyn J. Hone, only son of the Venerable Archdeacon Hone, to Constance Jane, eldest daughter of Henry Monro, M.D., of 13, Cavendish-square.

LAMBERT—DAVIES.—On July 28, at Snettisham, Norfolk, Mr. John Lambert, to Lucy Ann, eldest daughter of Mr. Thomas Davies, Surgeon, of Snettisham.

MCNEILE—SLOGGETT.—On July 28, at the Cathedral, Ripon, Lieutenant Malcolm McNeile, R.N., H.M.S. *Monarch*, to Christiana Mary, only daughter of W. H. Sloggett, Staff Surgeon, Royal Navy.

MITCHELL—RAWSON.—On July 28, at the parish church, Carlow, John Forbes, only son of Duncan Forbes Mitchell, of Thainston and Beltie, to Jane Maria, eldest daughter of Thomas James Rawson, Esq., M.D.

REDMAYNE—HYATT.—On July 28, John Redmayne, M.R.C.S.E., of Bolton, Lancashire, to Sarah Fielden, eldest daughter of Edward Hyatt, Esq., of Castle Donnington, Leicestershire.

ROE—CARTER.—On July 21, at Christ Church, Bray, Ireland, William Roe, M.D., F.R.C.S.I., second son of the late William Roe, solicitor, and of Carrolton, county Galway, to Ellen, daughter of the late Francis Boake Carter, Esq., of Shanganagh, county Dublin.

ROOSE—HUGGINS.—On July 30, at the Parish Church, Brighton, E. C. Robson Roose, of Brighton, Surgeon, grandson of the late Sir David Charles Roose, to Edith, second daughter of Henry Huggins, Esq., of Gordon House, Highgate-road, N.W.

DEATHS.

BRYANT, ETHEL ADA, the infant daughter of Thomas Bryant, Esq., of 2, Finsbury-square, at The Chesnuts, Chingford, Essex, on August 1, aged 13 months.

FALCONER, WM., L.F.P. and S. Glas., of Paisley, on July 24, aged 68.

FAITH, Dr. ROBERT, late of Calcutta, at 19, Clifton-road East, on August 1, aged 75.

GOLDIE, ALEXANDER, M.D., second son of the late Colonel Goldie, who was killed in the Indian Mutiny, at York-place, Edinburgh, on July 26.

GRAY, JOHN P., L.K.Q.C.P.I., of Kingstown, county Dublin, on July 19.

LAMB, ARTHUR, Surgeon, at Hampstead Norreys, Berks, on July 25. Deeply lamented.

LINGHAM, HENRY GREVILLE, the eldest son of Henry B. Lingham, Surgeon, Acton, Middlesex, on July 28.

MOSSMAN, ANN ELIZABETH, widow of the late Dr. Mossman, of Bradford, at her residence, Allerton Hall, near Bradford, Yorkshire, on July 25.

ROBINSON, JOHN CHADWICK, Surgeon, at Syston, Leicester, on July 23, in the 66th year of his age.

SHORTLIFF, Dr., at Malaga, on July 26, aged 62.

SMITH, JOSEPH PHARAOH, infant son of William Henry Smith, Surgeon, etc., 129, Clapham-road, on July 25, aged 9 months.

VASEY, ELIZABETH, wife of Charles Vasey, Esq., of Cavendish-place, W., at Kilburn, on July 31, suddenly.

WAINWRIGHT, THOMAS, M.R.C.S.E., of Barnsley, Yorkshire, on July 22.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM WORKHOUSE.—Resident Medical Officer. Candidates must possess the double qualification required by the Poor-law Board, and be duly registered. Applications and testimonials to be addressed to the "Guardians of the Poor of Birmingham," Paradise-street, Birmingham, on or before August 18.

BOURNEMOUTH GENERAL DISPENSARY.—Resident Surgeon. Applications on or before August 10.

BRIGHTON AND HOVE DISPENSARY.—Resident Medical Officer and Dispenser; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Committee of Management on or before September 5.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD.—Surgeon. Candidates, who must be F.R.C.S., are invited to send their applications and testimonials to the Secretary, 46, Great Coram-street, W.C., on or before August 10.

ISLAND OF SANDAY, ORKNEY.—Medical Officer. Applications and testimonials to be forwarded to the Chairman of the Parochial Boards, Sanday, Kirkwall, marked "Medical tenders," on or before August 10.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Salary £100, with furnished rooms, attendance, gas, coals, etc. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

KENSINGTON DISPENSARY.—Junior Resident Medical Officer. Candidates must be under 35 years of age, and duly registered. Salary £100 per annum, with furnished apartments. Testimonials to be sent to the Dispensary before August 13, where full particulars may be obtained.

NEWPORT UNION, MONMOUTHSHIRE.—Medical Officers required for the following districts of this Union:—Bedwas, Risca, Marshfield, Caerleon, and Magor. Candidates must be duly qualified and registered, and will be required to reside in the districts to which they are appointed. Applications and testimonials to W. D. Evans, clerk, on or before August 12. Election on the 20th.

NORTH WALES COUNTY LUNATIC ALYLUM, DENBIGH.—Assistant Medical Officer. Applications by August 9.

QUEEN'S COLLEGE, BIRMINGHAM.—Medical Tutor and Demonstrator of Anatomy. Applications, August 27.

Royal United Hospital, Bath.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before August 13.

St. Thomas's Hospital.—Assistant-Physician; must be F. or M.R.C.P.L. Applications and testimonials to the Treasurer on or before August 16. Election on September 8.

Stronsay, Orkney.—Parochial Medical Officer and Public Vaccinator. Applications, August 24.

Whitechapel Union.—District Medical Officer for the Aldgate District. Candidates must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. W. Vallance, at the Union Offices, Charles-street, on or before August 16.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Haltwhistle Union.—Dr. Buchanan has resigned the Workhouse; salary £7 per annum; and the Eastern District; area 34,132; population 3297; salary £17 per annum.

APPOINTMENTS.

Ulverstone Union.—John Morison, M.D. Edin., M.R.C.S. Eng., to the Broughton West District.

Upton-on-Severn Union.—Charles M. Campbell, M.D., M.B., and M.C. Edin., L.R.C.S. Edin., L.M., to the Sixth District.

Dr. Eustace Smith has been created Chevalier of the Order of Leopold, and appointed Physician-in-Ordinary to the King of the Belgians. This appointment does not require Dr. Smith to relinquish practice in London.

The annual meeting of the Association of Medical Officers of Health was held on the 14th ult., when the following officers were elected for the ensuing year:—*President:* Dr. Robert Druitt. *Vice-Presidents:* Dr. Aldis, Dr. Buchanan, Dr. Woodforde. *Treasurer:* Dr. Aldis. *Honorary Secretaries:* Dr. J. Northcote Vinen, Dr. Thomas Stevenson. *General Purposes Committee:* Dr. E. Ballard, Dr. H. Letheby, Dr. W. Hardwicke, Dr. W. T. Iliff, Dr. T. Sutton, Dr. J. J. Rygate, Mr. J. Liddle, Mr. C. F. J. Lord.

Working-men's Fund and the Birmingham Hospital.—The amount received to this date is 2878*l.* 3s. 9d., of which 729*l.* 15s. have been paid by gentlemen and others not belonging to the working-classes. The cashiers have given receipts for the total amount paid into the fund, and these receipts have been thus distributed in the three half-years: 1, £755; 2, £758; 3, £883.

Laying the Foundation Stone of Eastbourne College.—This ceremony was performed on Saturday last by Lady Edward Cavendish, in presence of a numerous and distinguished assembly. The College is beautifully situated in a very healthy locality, and, we understand, will offer some peculiar advantages to the sons of Professional men, particularly to those belonging to our own calling.

Composition and Quality of the Metropolitan Waters in July, 1870.—The following are the returns of the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	16·57	0·080	0·075	0·002	12·8	3·3
West Middlesex	17·13	0·050	0·091	0·000	12·9	3·3
Southwark & Vauxhall	17·83	0·080	0·060	0·001	13·5	4·0
Chelsea	17·10	0·053	0·080	0·000	13·2	3·6
Lambeth	19·20	0·071	0·049	0·001	14·0	4·0
Other Companies.						
Kent	27·00	0·017	0·146	0·000	20·0	5·3
New River	16·43	0·027	0·060	0·000	12·9	3·3
East London	17·34	0·047	0·075	0·000	13·0	3·6

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in the case of the Lambeth Company's water.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 114,752,521 gallons; and the number of houses supplied was 478,890. This is at the rate of 35·7 gals. per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 23 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

H. Letheby, M.B.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. H. Davis.—The list has not been forwarded to our office.

Dr. Davidson, Berwick-on-Tweed, shall have an early proof of his communication.

The consignees and manufacturers of Sturge's Montserrat Company's lime fruit juice, which was noticed in the *Medical Times and Gazette* of July 23, p. 104, are Evans, Sons, and Co., Liverpool, and Evans, Lescher, and Evans, London.

An Act to Improve the Profession.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Now that we are likely to get a perfect Medical Acts Amendment Bill, could not a clause be introduced to meet the practice of a few of our brethren who do their utmost to bring into contempt a learned Profession, by competing with druggists in keeping open shops and retailing hair-oil, soap, and tooth-brushes? I am, &c. Jersey.

August 2.

The Preliminary Examination at the Royal College of Surgeons.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have a complaint to make of my treatment at the recent preliminary examination for the Membership of the Royal College of Surgeons, which I am sure you will consider a valid one. I beg that you will consent to insert a few words on my behalf, as I feel I should have nothing to hope from an appeal to the examiners. It is customary on all examination papers, where questions are printed on the reverse, to place at the bottom of the first page the letters P.T.O., or something equivalent to them. This was the more necessary in this case, because of all the papers set us only one, the algebra one, was printed on both sides. I could have done the equations on the other side had I noticed them; and this might possibly have altered the result of the examination. Is it fair that I should suffer by this oversight?

I am, &c. X.

A Dentist, Liverpool.—We believe there will shortly be an examination for the Dental Licence of the College. Write at once to Mr. Trimmer, the Secretary.

Apropos of our article on the Highgate Infirmary *Inquisitive* writes a most amusing letter which we regret our space forbids us to publish. *Inter alia* he remarks—"There has been so much suspicious play in the whole proceedings of the St. Pancras guardians that it might be advisable to enlighten the public on certain points; indeed the functions of the 'rates-reduction committee' could be turned to no better purpose than to the examination of such questions as the following:—Who *ordered* the instruments and 'cases of peculiar construction'? Who *supplied* the weapons of Surgery, etc.?" We regret we cannot give him the information he requires, but we can tell him that the urinary cases supplied to the Infirmary cost the rate-payers the handsome sum of £21 12s. There are a few other not very small extravagances and absurdities we might mention, but we refrain.

Poor-law Medical Officers' Superannuation.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I always thought that Dr. Brady's Bill did not go far enough. I am quite sure that the only way to meet the case is, that a clause should be introduced empowering the Poor-law Board to grant a pension to every Medical officer of 50 years of age (60 is too old), and of twenty years' service, when, if he has done his duty conscientiously, he will have done ample work to entitle him to a pension, and which he may claim as a right, and not to depend on the caprice of guardians, such pension to be paid by the Government, but every parish in the kingdom to contribute a trifle to the fund, which would not amount to much; but if every individual parish has to pay the pension to the parish Doctor, the guardians will not only begrudge it to him, but the ratepayers generally will look on him as a pauper, and I believe most men with any spirit would rather starve than accept it on those terms, whereas, it would be a great boon and prized if it was given them by the Government. What use would it be to a man who was thoroughly broken-up, who perhaps might die the next year? But it would confer immense benefit on one who felt the duties of parish practice were too onerous for him, and who would retire in favour of a younger man. Soldiers and sailors are not allowed to be attended by men above 55 years of age, and why should paupers be treated worse?

I am, &c.
Medicus, and a Subscriber to your Journal
August 1. for nearly 30 Years.

The Real Dr. Ralph Richardson.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—After an absence of a few days from home, I find in your number for the 9th ult. a paragraph copied from the daily papers, in which my name has been appropriated by a certain Eugene Taylor, chemist, of 101, Drury-lane, in London.

As this young man gave his age as 20, and as I took my degree in 1834, I did not think the matter worth remark. Now, however, your notice of it has given the absurdity a circulation among the members of our Profession. As it unfortunately happens that some Scotch Doctors practise as Apothecaries, some persons may possibly imagine that I have given this person authority to use my name. I was totally ignorant of his existence till I saw his name in print, and, as far as I know, he can never have made up one of my prescriptions. Perhaps you may allow me space to add that such an annoyance could not occur in that country where "they (proverbially) manage these better," as in that favoured land no M.D. can sell physic and no pharmacieo make up medicine without the prescription of a Medical man. The Scotch universities, in claiming both Professions for their graduates, have (as in many other cases) grievously lowered the status of the Profession. I am, &c. Ralph Richardson.

St. Enogat-Denard, Ille et Vilaine, France, July 23.

An Old Member.—According to collegiate etiquette, only the Members of the Council who have passed the chair wear the president's gown on public occasions.

Old Mortality, Ventnor.—The celebrated Sydenham was buried in St. James's Piccadilly, as also Drs. Arbuthnot and Akenside. Oliver Goldsmith was buried in the ground east of the choir in the little vestry beneath the organ gallery in the Temple Church. Cheselden, who was connected with St. George's Hospital, as well as with the Westminster and St. Thomas's, was buried in the ground attached to Chelsea Hospital, where his monument was fast going to decay when we last saw it.

The Contagious Diseases Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As you have quoted Mr. Rebow's letter to the *Times* I shall feel obliged if you will allow me to make a few remarks upon it. I address this request to yourself because I know from experience that the *Times* will not insert letters from opponents of the Contagious Diseases Acts. And first, Mr. Rebow must allow me to inform him that the vast majority of cases of venereal disease are unimportant, and that his statement that soldiers are "invalided" is simply a misnomer. They are not invalided, and the proper expression is "under treatment or in Hospital." Mr. Rebow tells us that in the year 1868, before the Acts came into operation, the number of soldiers affected was 396 per 1000 during the whole year; that the Act came into operation in January, 1869, and that the number was reduced to 230 per 1000, that is, there was a reduction under the Act of 166 per 1000 of force. As the report for 1869 is not published I have no means of verifying Mr. Rebow's figures; but find from the last army Medical report that some years before the operation of the Acts, the proportion of cases in Colchester was 537 per 1000 of force. Without any legislation whatever this was reduced in 1868 to 396 per 1000 of force, a fall of 141 cases or 14 per cent., without the aid of a Contagious Diseases Act. This shows that without the Act the reduction was going on in about the same proportion as subsequent to its adoption, and all we can say of Mr. Rebow's statistics is simply that the Act has not checked the decline in this class of affections which Dr. Balfour, the head of the statistical branch of the Medical board, tells us was going on at all military stations prior to any legislation. The following are his figures:—At Plymouth and Devonport, before the Contagious Diseases Acts were thought of, there was a reduction of 151 cases, at Chatham and Sheerness of 59, at Shorncliffe of 108, at Aldershot of 106, at Woolwich of 269, and at Portsmouth of 174 per 1000 of mean force, without any legislative interference whatever. Since the application of the Act to these stations there has been a slight diminution at three, a large increase at one (82 per 1000), and a decided increase at the other two stations, showing on the whole an aggregate increase of disease under the operation of the Act in face of a previous most satisfactory decline without it.

There is nothing very wonderful in the small proportion of men affected in the garrison, as mentioned by Mr. Rebow, if we compare it with the fact recorded by a regimental Surgeon in a recent number of the *Lancet*, that on inspection of his regiment of 1000 men, quartered in a manufacturing town where there is no Contagious Diseases Act, not a single man was found diseased! Mr. Rebow's remark that during the training of the militia out of a strength of 750 men, not a case of contagious disease was contracted in the district (scarcely susceptible of proof), pales into insignificance when compared with the fact for which I am indebted to my friend Mr. Wright, Surgeon, of Scarborough, who recently examined the whole of the men in the regiment of militia under training in that town, and found not a single case of syphilis, and only three cases of gonorrhœa in upwards of 500 men coming from all parts of the country unprotected by Contagious Diseases Acts. As to women having no objection to be brought up by the police and subjected to the penalties of registration, imprisonment, and periodical Surgical violation—*credat Judæus, non ego.* We have too much evidence on the other side, as to the terror, the "something behind" necessary to bring them up, though no doubt those diseased are thankful for treatment in Hospital; and the fact that they are so is sufficient proof that no compulsion is needed to induce them to apply for treatment when diseased, and that the police invasions of poor men's homes, the legalised outrages in the shape of periodical examinations of healthy women and helpless children, are as palpably unnecessary as they are clearly unjustifiable.

I am, &c. HUMANITAS.

Nottingham.

Alleged Assault in a Dispensary.—The case was dismissed very properly, but the Surgeon of the institution ought never to have been placed in the position he was. The system of payment at dispensaries is one fraught with many evils. It not only injures Surgeons in general practice, but gives a patient the assumed right of acting independently of the laws and regulations of the institution. Dispensaries should be entirely of the provident kind, or supported entirely by the voluntary contributions of the benevolent. Payment by patients—who, if they can afford to pay, should be sent elsewhere—should be ignored. The union of payment with charity is "an unholy alliance."

An Old Member of the Royal College of Surgeons and L.S.A. has sent us a short but ably-written article entitled, "The Medical Profession: What it was, what it is, and what it ought to be." After giving a graphic but succinct account of the anomalies which did and do exist, he says:—

"Reviewing these present complications, would not one portal and one title simplify matters, and put everything straightforward and fully efficient for our Profession and the public? The preliminary education being the same, the teaching the same, and examination the same to admit men to go out before the public to practise Medicine and Surgery, each might take to the practice of any particular branch he chose, and become distinguished in it as now; there would be the same but better open ground for individual pre-eminence. The Hunters, Clines, Coopers, and Abernethies held the same degree as the obscure country Surgeons; the Meads, Baillies, Gregories, Halfords, and Munroes the same title as their humbler compeers. Many of the Members of the College of Surgeons who were so before a second and *presumed* first class was instituted have stood aloof from taking the Fellowship, regarding it as an insult upon the old members, who were upon an equality with all the Surgeons of their time, as to the diploma. For self-respect and public service, no individual should be licensed to practise Medicine and Surgery unless educated and examined up to the standard then existent."

Salubrity of Tasmania.

Few islands in the world can compare with Tasmania for salubrity. The temperature is so genial and the air so pure that the diseases which in England add so much to the general death-rate have here a minimum of intensity.

Intermittent and allied fevers are almost unknown, and other fevers are of rare occurrence. Small-pox has never yet existed in this island. Pulmonary consumption has a death-rate far below the English average, and more especially are the youths of both sexes, born in the island, comparatively exempt from this dire foe to the flower of the youth of the home countries. Emigrants from Europe with the consumptive tendency, if not too far gone, soon have the germs of this disease eradicated if they observe the necessary laws of health.

For the twelve years from 1857 to 1868 inclusive, the average annual deaths in Tasmania at all ages, and from all causes, was only 1442, being about 14 per 1000 per annum. Last year (1869) the deaths were only 1335, or 107 below the average, which on the present population is only a death-rate of 12¾ per 1000. It is a remarkable and most gratifying fact that annually on the whole as the native-born population has increased numerically over the imported inhabitants, so has the death-rate gradually diminished; and yet the constituents of the population have been altering so that by the ordinary laws of vitality the death-rate should have increased—that is, the adult proportion has fallen lower, while the very young and the very aged have increased.

No part of the world is perhaps more favourable to infant life than Tasmania. About nine out of every ten children born survive the first year of life, and the mortality from that age up to about 14 years old decreases at a wonderful rate. The deaths in 1000 children between 3 and 14 years only average about 5 per 1000 annually. In the large charitable institution for destitute children, called the Queen's Asylum, with a daily average strength of about 400 children, aged principally from 6 to 12 years, there have only been two deaths in the last three years, and one of these was from accident. Nevertheless, notwithstanding the auspicious climate, sanitary laws cannot be violated here with impunity, any more than elsewhere, as this very institution formerly exemplified when the deaths were annually sixteen on an average of nineteen years. There was, however, then a larger proportion of children under 6 years old than now, or has been for some years past.

Is Tuberculosis a Contagious Disease?

By Dr. Haatsen.

M. Villemin, from his experiments, draws this conclusion—that tuberculosis, as to the manner of its propagation, has the greatest analogy with glanders. At the same time, he points out the fact that this analogy explains, to his mind, the enormous frequency of tuberculosis, and a great many other striking—viz., the following—facts. Among poor people this disease is far more common than among the wealthy; for the former dwell in narrow spaces, and are consequently more subject to the tuberculous matter which is heaped up in the rooms. Among people who labour in the open air, a smaller number are tuberculous than among weavers, tailors, and others who are condemned to their rooms. It oftener happens that a diseased man infects a woman than the reverse, for women are more confined to the drawing-room than men.

We cannot abstain from protesting against the logic of Dr. Villemin. It is a mere fallacy to conclude, from any inoculation experiments, that tuberculosis should be contagious in the sense of Dr. Villemin. Contagiousness of tuberculosis cannot be asserted *à priori*. It only can be established by cases of evident infection. Now, such cases, even if real, are very difficult to prove in a disease which makes so many victims, and so easily arises spontaneously. That poor people are more menaced than rich, that those who are shut up in their rooms more than those who enjoy the free air,—these facts can easily be accounted for without the intervention of contagiousness.

We are far from denying *à priori* the possibility that tuberculosis is contagious indeed. But, to our mind, there are no facts at all which oblige us to admit that possibility. On the contrary. Great is the number of healthy widows and widowers of tuberculous invalids. Thousands of parents have lost their children from tuberculosis without being infected themselves. Innumerable Physicians and sisters of charity have nursed phthisis unpunishedly. With contagious diseases like typhus, measles, etc., the experience is quite otherwise. The advocate of contagiousness will reply that it must be so, because the infection of tubercle requires predisposition. But, by means of this reply, he breaks off the point of his whole argument. By this very hypothesis of "predisposition," he confesses that intercourse and even coitus with tuberculous individuals does not offer an imminent danger. Now, this is all we require. That it is a risk to eat tubercles and to inoculate them in your blood we are willing to believe. But these are recreations from which, if urgently required, we can, without great sacrifice, abstain from. If really the contagiousness were proved, this would bring upon many people very painful duties. We therefore should not admit this contagiousness without being compelled by unmistakable evidence. Now such evidence, I repeat, is entirely wanting. There are many cases, it is true, where two or more inhabitants of the same house are afflicted by tuberculosis. But, from this, we may not deduce its being contagious. On the contrary, we ought rather to be astonished at the fact of such cases being not still more frequent with a disease so widely spread and so often hereditary.

The experiments of inoculation prove nothing at all in this question. Venereal diseases also are conveyed by inoculation. Nevertheless, nobody pretends that the fact of inhabiting a narrow space with syphilitic people is alone sufficient to propagate the disease. And even here the evil seems to be inoffensive if the genital system is not directly affected.—*Virchow's Archiv.*

Should Tuberculous People be condemned to a Life of Absolute Continency?

The following is a translation of the article by Dr. Hartsen, a criticism on which by Professor Virchow we published last week:—

The problem we treat is of a complicate nature. Many reasoners, on account of the hereditary character of tuberculosis, will reply "yes" unconditionally. To our mind, however, the following remarks ought to be taken here into consideration. Happy love brightens the spirits, and is, in consequence, likely to improve health. Unhappy love, on the contrary, is likely to precipitate death, by this to bring mischief upon the patient and upon his relations. Now, I put the question whether it is fair to sacrifice the life and happiness of actual beings to a progeniture which, perhaps only, will be drawn into life. Besides, it is by no means an absolute law of nature that

children from tuberculous parents will inevitably be predisposed to the complaint; still less that they will necessarily get phthisical. If they know that their parents were afflicted with unsound lungs, they can take proper precautions. But even if they should necessarily die from consumption, even then we would observe this. Every one of us must die sooner or later; if not by phthisis, at least by some other misery. Thus our object cannot be to procreate a generation of ever-living children, but of eminent ones. Now, it cannot be said that tuberculous people are necessarily less happy, less lovely, less intelligent, less useful than others. In fact, we do not see any necessity for making the birth of a consumptive person more difficult than that of another.(a) And where would we come to if we would restrain the happiness of love only to strong people?

A point which should not be put here out of the question is this—Therapy of phthisis is on the way of progress. Our children will be better off than we are ourselves. Before the generation, which now only exists *in spe*, has reached the age of puberty, many inventions will not fail to be made for making chest complaints less trying and destructive. At all events, it is a fact that chest invalids often escape from some perils by which others are menaced—for example (and this is of great consequence in our days), the peril of being reduced to a pulp or extract by some impatient Armstrong bullet.

It is, however, often said that love, by means of loss of substance, etc., is directly pernicious for sick people, and that, for this reason, tuberculous people should live in complete continency. As to this, we must warn against exaggeration. Reasonable people will know how to keep within proper bounds. Besides, sexual intercourse is less exhausting than many people, for whom grapes are sour, would like to make us believe. Recently-married couples generally do not look marastic and emaciated, but often even exhibit a certain embonpoint.—*Virchow's Archiv.*

COMMUNICATIONS have been received from—

Dr. Tuson; X.; Dr. A. Mackintosh; Mr. J. Morgan; Mr. J. Ambrose; Mr. N. Alcock; T. S.; Dr. W. Carter; Medicus; Mr. L. K. Times; Sigma; Mr. J. Robertson; Mr. Moody; Mr. Hutchinson; Mr. Harry Davis; Humanitas; Dr. Macpherson; Dr. Moxon; Mr. J. Chatto; Professor Corfield; Dr. Playfair; Dr. Day; Honor; Jersey; Dr. J. N. Vinen; Dr. Letheby; Dr. W. Orange.

BOOKS RECEIVED—

The Preservation of Health, by Thomas Inman, M.D. Lond.—Wintering at Mentone, by Wm. Chambers—Northampton General Lunatic Asylum Report—Monthly Microscopical Journal, No. 20—Henfrey's Elementary Course of Botany, by Dr. Maxwell T. Masters—Nashville Journal of Medicine and Surgery—Prurigo and Pediculosis, or Phtheiriasis and their connexion with Pediculi, by Dr. Tilbury Fox—Edinburgh Medical Journal, August—Albinism in the Negro Race, by Dr. Joseph Jones, of New Orleans—Mollities Ossium, by Dr. Joseph Jones, of New Orleans—Bradbury on Vertigo or Dizziness—Du Fonctionnement des Ambulances, par J. P. Bonnafont—Monthly Homœopathic Review, August—Food Journal, No. 7—Practitioner, No. 26.

NEWSPAPERS RECEIVED—

Nature—Scotsman—Edinburgh Evening Courant—Pharmaceutical Journal—New York Medical Gazette—Medical Press and Circular—Aberdeen Free Press.

APPOINTMENTS FOR THE WEEK.

August 6. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women 9½ a.m.; Royal London Ophthalmic, 11 a.m.

8. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

9. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

10. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

11. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m. West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

12. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

(a) Mendelssohn, Schiller, Sterne, Moliere, Jouffroy, etc., died of phthisis. Would it be better if they had never been born?

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 30, 1870.

BIRTHS.

Births of Boys, 1076; Girls, 1002; Total, 2078.
Average of 10 corresponding weeks, 1860-69, 1943·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	874	826	1700
Average of the ten years 1860-69	786·0	741·0	1527·0
Average corrected to increased population	...	...	1680
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	6	27	1	7	2	1	4	54
North ...	618210	6	9	31	2	3	3	6	1	72
Central ...	383321	...	5	11	1	...	...	3	3	39
East	571158	4	6	5	...	4	2	...	...	91
South	773175	1	4	26	1	12	1	4	1	115
Total	2803989	11	30	100	5	26	8	14	9	371

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·835 in.
Mean temperature	64·8
Highest point of thermometer	88·8
Lowest point of thermometer	49·7
Mean dew-point temperature	55·9
General direction of wind	N., N.E.
Whole amount of rain in the week	0·93

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 30, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending July 30.	Deaths Registered during the week ending July 30.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2078	1700	88·8	49·7	64·8	18·22	0·93	2·37
Portsmouth ...	122084	12·8	65	43	85·3	47·5	65·9	18·83	0·64	1·62
Norwich	81087	1·09	54	45	77·5	54·0	62·4	16·89	0·27	0·69
Bristol	171382	36·6	119	122	90·2	46·0	64·9	18·28	0·05	0·13
Wolverhampton ...	72990	21·5	46	36	87·4	47·2	62·7	17·06	0·00	0·00
Birmingham ...	369604	47·2	228	178	87·2	48·7	62·8	17·11	0·04	0·10
Leicester	97427	30·4	70	65	85·7	53·7	64·5	18·05	0·10	0·25
Nottingham ...	88888	44·5	50	54	87·5	53·3	65·2	18·44	0·11	0·28
Liverpool	517567	101·3	371	339	85·1	48·9	62·9	17·17	0·00	0·00
Manchester ...	374993	83·6	253	204	88·0	49·0	64·3	17·94	0·00	0·00
Salford	121580	23·5	82	71	87·3	46·0	63·5	17·50	0·00	0·00
Bradford	143197	21·7	72	91	85·0	52·9	63·7	17·61	0·00	0·00
Leeds	259527	12·0	174	166	86·0	53·0	64·8	18·22	0·00	0·00
Sheffield	247378	10·8	198	160	82·2	52·0	63·1	17·28	0·03	0·08
Hull	130869	36·7	75	62	79·0	47·0	60·0	15·56	0·01	0·03
Sunderland ...	94257	30·5	77	45	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	95	62	74·0	51·0	58·3	14·61	0·00	0·00
Edinburgh	178970	40·4	132	81	82·7	45·0	60·5	15·83	0·00	0·00
Glasgow	468189	92·5	386	245	85·2	45·0	62·9	17·17	0·00	0·00
Dublin (City, etc.*)	321540	33·0	148	114	85·9	38·5	60·4	15·78	0·00	0·00
Total of 20 Towns in United Kingd'm	7209603	33·8	4773	3883	90·2	38·5	63·0	17·22	0·11	0·28
Paris—Week ending July 30	1889842	242	...	1195	...	...	...	...	...	...
Vienna—Week ending July 23 ...	605200	167	...	398	...	...	68·0	20·00	...	...
Berlin—Week ending July 28 ...	702437	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·835 in. The highest barometrical reading was 30·02 in. on Thursday, and the lowest was 29·64 in. on Monday.

The general direction of the wind was N., N.E.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON THE MILK AND WHEY TREATMENT, AND ON HEALTH RESORTS.

By Dr. HERMANN LEBERT,
Professor of Clinical Medicine in the University of Breslau.

I.

GENTLEMEN,—It is now a very general custom with many patients as a means of effecting a cure to go into the country during the summer months to spend their time on the hills and at the seaside, hoping there to gain health and strength far away from the troubles of their daily occupation. Although many abuses still exist in the application of mineral waters, yet treatment by their means must in many cases be recommended, since it evidently is founded on true hygienic principles.

It must therefore be a part of your Medical education that you should make yourselves acquainted with this method of treatment, and consequently during the summer months I gladly embrace the opportunity of making every suitable case available in this respect for your instruction. Lectures on this subject are valuable not only for the benefit of your future practice, but they are also necessary for this reason, that our views on this subject have changed a great deal during the last few years, and they will probably yet undergo still more change.

The time is past in which mineral waters have been regarded as simple units (without reference to their constituents), in which the mysticism of the healing power of the spirits bubbling from the depths of the earth had a particular charm, not for the layman only, but also for many Practitioners, and when the might of the propitious Naiads within the province of balneology gave rise, not only to large numbers of doggerel verses, but to a still greater quantity of prose writing. Natural philosophy, chemistry, and experience sieved by a process of severe criticism, have at last begun to bear sway even in this department. We have become aware that the ghosts rising from the deep are nothing but aerated water impregnated with salts derived from the soil and rocks through which it has flowed, and from this fact we derive a knowledge of benefit to therapeutics, of the proper relations of solution and chemical combination. Of the gases, again, we know that hydrosulphate gases, for instance, are freed by the decomposition of sulphate of lime or other sulphates, and the bubbling carbonic acid from the carbonated salts, earths, and particularly from carbonate of lime. From a chemical aspect we are better acquainted with the mineral waters than we are with most of our composite medicines; we know that their temperature depends on a definite law, that of the increase of the heat of the earth by one degree Centigrade for every hundred feet in depth, and that their physical condition as regards temperature from the very cold to the hot springs exercises a decided influence on their action.

Concerning the bath, we have learnt that the salts contained in solution are not at all, or but little, absorbed by the skin, and that therefore a direct influence is exercised by the bath only in diseases of the skin or in affections which have communication with the skin by means of fistulous sores, and so on. The unquestionable influence exercised on the nerves of the skin is much weakened by the epidermis, but nevertheless the physical action of the bath becomes quite prominent in the majority of diseases which do not directly concern the surface of the body, and here again temperature plays a most important part; also in douches the degree of concentration and force of the jet and the height from which it falls, and in vapour baths minute atomisation and high temperature, etc. If the original therapeutics of the peasant Priesnitz tries to make the patient believe that the pustules and furuncles produced by constant iritation of the skin consequent on unintermittent poulticing are true crises, one does not know whether most to smile at the credulity of the patient or at the charlatanism of such practitioners.

The more hygiene becomes a subject of close and profound investigation, the more does climatology attain to its full and important rights; and, on taking a survey of many and accurate meteorological, physical, geographical, and geological investigations, we find that they afford to the Physician many delicato and important points, but they at the same time impress him with a feeling of the responsibility of acting on a strictly critical and scientific basis in respect to such knowledge.

The courses of treatment by milk and whey occupy a prominent position amongst the hygienic courses, which are very often combined with climatic and mineral water treatment. These are annually ordered for so large a number of patients that it seems to me very necessary for your future practice that I should give you a clear idea of them; since, on the one hand, according to my conviction, the milk courses, more particularly with respect to the different species of animals which supply the milk, have not yet been sufficiently appreciated, whilst on the other hand the courses of treatment by whey have been very much over-estimated, having attained to such proportions in the watering-places of Silesia as to render the latter rivals to those even of Switzerland. Now, most of our whey health resorts have an advantageous climatic position; their arrangements and the whole mode of life in them are well arranged. The Medical advice is mostly derived from full experience; and hence beneficial results in chronic cases cannot be denied. Nevertheless, we must in many cases confidently conclude that the patients have been benefited or cured, not in consequence, but in spite of the whey. Concerning this point, a want of knowledge in natural philosophy and chemistry is felt by many Physicians, and this again proves that secular traditions must not be mistaken for verified experience.

I am just publishing an extensive paper on this subject, and I refer you to the same for further information concerning it. To-day I shall try to give you merely an outline of the principal points concerning the composition of milk and whey, and their application in chronic diseases; and I intend to add a few remarks to show that chronic tubercular disease of the lungs in its earlier stages very frequently gets worse in consequence of a prolonged stay of the patient in Hospital, whilst much better results may be expected for the poorer classes from health resorts in the country, combining a well planned hygienic system.

Let me first make a few remarks on the chemical nature of milk and whey. If we compare different kinds of milk with reference to their solid constituents we find that asses' milk is most dilute, containing scarcely 9 per cent. solid matter; next stands human milk with somewhat over 11 per cent.; next goats' milk with 13⅓ per cent.; next cows' milk with over 14 per cent.; then sheep's milk containing 16 per cent. (according to an analysis recently made in my laboratory even 18 per cent.); and, lastly, mares' milk, containing 17 per cent. From these facts asses' milk would be applicable in cases where a dilute milk seems desirable. Goats' and cows' milk represent the average quality; sheep's milk would be suitable when that containing a large amount of nourishment is thought necessary, and it is preferable to the rich mares' milk—which in the central parts of Europe is also frequently applied to therapeutic purposes—because it contains a larger quantity of albumen and casein.

Still more important than the total amount of the solid matter is the amount of casein and albumen. Excepting mares' milk, which is excessively poor in this respect, human milk is the poorest, containing only 4 per cent. of casein, whilst cows' milk contains nearly 5 per cent., and more than ½ per cent. albumen. In direct opposition to the latter stands asses' milk, with only 2 per cent. casein and albumen, and for this reason it is beneficially employed in inflammatory chronic diseases, in which the supply of nitrogenous matter must be confined within moderate limits. Goats' milk, with 5⅔ per cent. of casein and albumen, is particularly characterised by its large amount of albumen, which is 1⅓ per cent., and sheep's milk is in this particular again the richest, since of 5⅓ per cent. of casein and albumen, as much as 1⅔ are albumen.

Asses' milk contains also the smallest quantity of butter, whilst cows' and human milk contain 4⅓ per cent., sheep's milk nearly 6 per cent., and goats' milk nearly 7 per cent. Goats' and sheep's milk contain, again, the largest amount of hydrocarbons, and the sheep exhibits the enormous value of the nourishing constituents of its milk by its containing 11½ per cent. of proteine matters and hydrocarbons.

The milk sugar amounts on the average to 4 per cent. in the cow, goat, and sheep, and to more than 5 per cent. in the ass.

The salts, chlorides of the alkalies, earths, etc., amount to ½ or ⅔ per cent. on the average in different kinds of milk. The large amount of milk-sugar in mares' milk—viz., 8 per cent. —only moderately increases its nutritive value, but renders it

prone to alcoholic fermentation, whence arises its manifold application in courses of "Koumyss" treatment amongst Tartaric tribes.

(*To be concluded.*)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CLINICAL NOTES OF CASES.

New Material for Splints.—Mr. Hutchinson has recently been trying hatters' felt for splints. It can be obtained at any hatter's, is cut to the required shape, dipped in hot water, which softens it, and it is then moulded to the limb. As it dries it stiffens, and forms an excellent support. There are several cases in the Hospital now in which it has answered capitally in children. It has not been tried yet, we believe, for adults.

OPHTHALMIC DEPARTMENT.

Glaucoma.—Mr. Adams has under care a case of glaucoma, for which iridectomy of both eyes was performed a few days ago. One eye was very defective, and both were painful. The pain has been entirely removed, and the sight of the better eye is almost as good as ever.

Tumour of Eyeball.—Also under the care of Mr. Adams, is a patient, a woman aged about 40, who applied a fortnight ago for pain in the right eye, with complete loss of sight. On examination the pupil was found slightly dilated, the lens was opaque, the ciliary region of a dusky tint, and there was some increase of tension. There was also some blood in the anterior chamber. The history was that the sight had been failing for some time, and that a few weeks previously pain had come on. Taking all these signs into consideration, and especially the presence of blood in the anterior chamber, Mr. Adams was led to diagnose a tumour within the eyeball, and he recommended excision. The woman consented, and after removal a growth occupying about a third of the posterior part of the eyeball was found. It was probably of a gliomatous character. There was no growth to be found outside the eyeball, and the one inside did not seem to penetrate the sclerotic. In a few days, however, a nodule of a soft whitish growth was seen at the bottom of the wound, and at the end of a week it was considered advisable to destroy this freely with chloride of zinc. So far this seems effectual, but it is not likely to be permanently so.

Glaucoma.—There is another case of glaucoma under the care of Mr. Tay, also double, and attended with almost complete blindness of one eye and such haziness of the vitreous of the other that the fundus could not be made out. Double iridectomy has been performed.

Tumour of the Cerebellum.—Mr. Tay has recently had a very interesting case of tumour of the cerebellum under care. The patient was a boy, 9 years of age, who was brought as an out-patient on July 14. The parents said that seven months before he was taken ill with pain in the head, vomiting, and weakness of the legs. The latter gradually increased so that he could not stand. The vomiting was very frequent, and the pain in the head intense. He was taken to the Hospital in Ormond-street, where he remained till a fortnight before the parents brought him to the London. The lad was carried by his father as he could not even stand. He had a decidedly amaurotic aspect, and his pupils were dilated and fixed. An ophthalmoscopic examination revealed slight changes, indicative of past optic neuritis; the one disc being rather white, the other showing haziness as from the presence of lymph. The legs were not absolutely paralysed; he could lift them slightly when lying down, and draw them up fairly when the soles of the feet were tickled. He seemed to feel well. The arms were not affected. Looking at the history of vomiting (purposeless vomiting as Dr. Jackson calls it), with pain in the head and the occurrence of neuritis, with the weakness of the legs only, Mr. Tay came to the conclusion that the case was very probably one of tumour of the cerebellum. Dr. Jackson kindly saw the case and agreed that the symptoms were similar to those he had met with in connexion with growths involving the inferior vermiform process of the cerebellum. After the lad had been in the Hospital a fortnight he was suddenly seized with a succession of "fits," passed into a state of complete coma, and died in a few hours. At the post-mortem examination the ventricles were found enormously distended with serum; and involving the inferior part of the cerebellum, and reaching forwards to the corpora quadrigemina there was found a soft growth, in colour almost exactly like that of the brain tissue, but under the microscope presenting the structure met with in gliomata. A short time ago there was a very similar case under the care of Mr. Hutchinson. The patient was also a boy.

Choroidal Atrophy.—There is now in the Eye Ward (under the care of Mr. Tay) a man with a very curious choroidal (?) patch in one eye only. When he looks upwards and inwards with the left eye a large very glistening white patch can be seen, crossed by a large retinal vein, probably produced by exposure of the sclerotic, but there are no other patches. The man is not myopic, and he has had no injury. It may be syphilitic.

ST. MARY'S HOSPITAL.

CASES OF OBLITERATION OF VARICOSE VEINS.

(Under the care of Mr. HAYNES WALTON.)

FROM some clinical remarks made by Mr. Walton during a recent visit to the wards, we gather that he is much in favour of tying varicose veins under certain circumstances, and that in his hands the operation has met with such marked success, as to justify his favourable opinion of it. Remarking upon this plan of treatment to the students, Mr. Walton pointed out the value of Mr. Gay's researches, which have shown that the vein which mainly suffers is not the long saphena, as is usually taught, but rather its smaller tributaries. The operation of ligaturing varicose veins was long thrown into the background by the strong adverse opinion expressed by Sir Benjamin Brodie, in which course he was followed by Key and Lawrence, so that for some years this mode of treatment shared the fate of the valuable operation of lithotrity, which was also by the powerful opposition of Brodie prevented from coming into general use for several years. Both methods of treatment, however, have been very generally revived amongst us of late, and Mr. Walton believes that if due discretion be exercised in the selection of cases, and proper caution observed in the performance of the operation, the ligature of varicose veins is as safe and as effectual a proceeding as any remedy which has been proposed. Mr. Walton never operates as long as fair relief is obtained from elastic stockings or bandages. When these means fail, however, the patient is put to bed and kept at rest for a few days, with a cold lotion to the affected leg, and then the swollen vein is obliterated in the usual manner. Much stress is laid on the method of introducing the pin, which must be inserted vertically through the parts by the side of the vein, the point carried well round, and thrust sharply out on the other side. Mr. Walton generally follows the plan suggested by Mr. Henry Lee, of dividing the vein between the points of compression; not with the object of rendering the operation more effectual, but merely to prove that the vein is properly secured and not transfixed, transfixion by a careless operator being the great source of danger in this otherwise highly satisfactory treatment. During the past year Mr. Walton operated on seven of these cases, and each time with a successful result. We subjoin brief notes of three of these.

Case 1.—Henry H., a man-servant, suffering a good deal from general debility, with loss of appetite, etc., was admitted into the Grafton Ward on March 16, 1869. He had been troubled with varicose veins in the thigh and leg for four years, and had until lately worn an elastic stocking for their relief; but the pain and uneasiness increasing, he at length sought admission into the Hospital.

After a week's rest in bed with a cold lotion on the leg, Mr. Walton, on March 25, passed two hare-lip pins beneath the vein, and secured them with thread in the usual way. The man complained of pain on the following day, but this only lasted for some hours. The pins were removed on the sixth day, and four days later discoloration of the skin between the points of insertion of the pins was noted, with hardness and great tenderness of the vein. There were no constitutional symptoms throughout, the pain and tenderness soon subsided, and the man left the Hospital cured on April 21.

Case 2.—Fanny K., a housemaid, aged 23, was admitted June 4, 1869. She was a healthy girl, with florid cheeks, and had only noticed considerable enlargement of the veins of the left leg during the past two months. She had had much standing and kneeling in her daily work, and the pain was

becoming almost too great to permit of her walking. Four days' rest in bed brought down the swelling materially, but there was still much enlargement above the knee, and some, to a less extent, in the calf. On June 13 Mr. Walton passed two hare-lip pins beneath the vein, secured them with twists of waxed silk, and divided the veins between with a small tenotomy knife, The pins were removed on the eighth day, when the swelling in the calf had completely disappeared, and that above the knee much reduced. Three weeks after the operation Mr. Walton punctured a swelling remaining between the points of pressure, and let out some dark clots of blood. There was hardly any pain after the veins were once tied, excepting for the first day or two, and she walked out, with an elastic stocking fitted to the limb, quite well, on July 16.

Case 3.—C. P., a footman, aged 20, was admitted June 7, 1869. He was a strong-looking light-complexioned fellow, with stout arms and legs. He had had a great deal of standing at his daily work, and for three months past had suffered much from painful varicose veins in both legs, especially towards night. After a week's rest in bed, Mr. Walton constricted the swollen vein in the right leg between hare-lip pins and waxed silk, afterwards dividing the portion of vein between the pins with a tenotomy knife. There was some pain on the following day, but this soon cleared off, and Mr. Walton removed the pins on the seventh day, when the veins seemed to be well obliterated. On June 23 two more pins were applied to the left leg in the same way, and with the same result, the man being discharged cured on July 2, with the recommendation to wear elastic stockings.

THE HOSPITAL FOR CONSUMPTION, ETC., BROMPTON.

CASE OF PHTHISIS COMMENCING IN THE LARYNX IN A CHILD.

(Under the care of Dr. R. DOUGLAS POWELL.)

H. P., a boy, aged 10, came to Dr. Powell as an out-patient at the Brompton Hospital, Dec. 18, 1869. He was a thin pale child, tall of his age, and slightly made, with the delicate features and thin transparent skin which mark the so-called tubercular diathesis. He lived over some stables in a mews, and had the following history:—His parents and five brothers and sisters, four younger than himself, were healthy, but there was some hereditary tendency to phthisis on the mother's side, he had had measles and hooping-cough in infancy, but never scarlet fever, or otorrhœa, or abscesses of any kind; he had, however, never been strong; eight months ago he began to have some lumps in the neck, and thickness of voice, the latter increasing to complete aphonia, and accompanied by gradually failing strength, increasing languor, and progressive emaciation. There had never been any difficulty in swallowing. The bowels were sometimes relaxed after meals. On examination the pulse was 128; the breathing thick and somewhat obstructed, with action of nares; there was complete aphonia; the glands in the neck below the ramus of the jaw were enlarged, more so on the right side; the uvula was seen to be large, pendulous, and bifid, and behind the left tonsil, on the posterior pharyngeal wall, a sharply defined abrasion the size of a shilling with a granular surface was visible. The vocal chords were found thickened with an abrasion on the left having an ash-grey surface; they did not come in contact during an attempt at phonation. At the right supra-spinous fossa and upper scapular region, there was slight comparative dulness, with harshness of respiration and a few clicks; elsewhere the chest sounds were fairly normal. The tongue was furred and the appetite capricious, and there were irregular febrile symptoms. There was but very slight cough without expectoration. The diagnosis was laryngeal phthisis and pulmonary tuberculosis, and the prognosis was most unfavourable. A mixture was prescribed containing chlorate of potash, hydrochloric acid, glycerine, and a little perchloride of iron; he was ordered to inhale the spray from a weak solution of alum and chlorate of potash twice daily, and to take some cod-liver oil.

January 4.—The throat symptoms were improved, and the pharyngeal abrasion healed; bowels quiet; tongue clean; but respiration still noisy and obstructed. Vinum ferri, with a little potass. iod. and tinct. quiniæ, ordered; oil and spray as before.

February 2.—Breathing decidedly easier; now quiet and easy during sleep, instead of being difficult and noisy, as before. The pulmonary signs had, however, advanced; there was consolidation and softening at the left apex, and the patient coughed and occasionally expectorated.

It is unnecessary to pursue this case in further detail. The throat symptoms were decidedly relieved, and the glandular enlargement almost disappeared, but the aphonia remained complete, and the pulmonary signs rapidly advanced. The patient died March 15, having had no diarrhœa or head symptoms.

Remarks by Dr. Powell.—There are some instructive points about this case. The disease evidently began in the larynx—a very rare occurrence in children, though not uncommon in adults. When the patient came under my notice in December, it was clear that he was suffering from a general disease, rapidly advancing to a fatal termination. Whether this was the case at first, or whether, eight months previously the laryngeal disease was simple, but gave rise, in a child predisposed to tubercle, to irritation of glands, development of tubercle in them, and secondary infection of other organs, is uncertain. Even if I had been able to have obtained a post-mortem examination, this question might not have been decided; but I am inclined to the latter view of the case, as most in accordance with modern researches. The disease was principally localised in the throat and lungs, and was in the latter situation mingled with a great deal of lobular or catarrhal pneumonia; that the lung disease consisted wholly of lobular pneumonia from the first, set up by the descent of irritating morbid secretions, is rendered improbable by the constitutional disturbance being in advance of the local symptoms, and by the latter beginning at the summit of one lung, instead of at a more dependent part. I think the effect of treatment upon the throat symptoms was in this case deceptive, though some relief was afforded. The diminution in the obstruction to breathing was due mainly to two causes—1st, to the removal by slow ulceration of the inflammatory thickenings at the laryngeal orifice; 2nd, to the increasing shallowness of the respirations from the progressing pulmonary disease; so that this increased comfort in breathing, regarded as favourable by the patient's friends, was viewed in a far different manner by myself.

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Medical Times and Gazette.

SATURDAY, AUGUST 13, 1870.

THE PRUSSIAN ARRANGEMENTS FOR TRANSPORT OF WOUNDED IN TIME OF WAR.

Just at this time the paper by Professor Longmore, C.B., in Appendix No. v., p. 259, of the Army Medical Department Report for 1868, "On some of the Prussian Arrangements for the Transport of Wounded in time of War," will be read with peculiar interest. Mr. Longmore chiefly confines his remarks to the railway arrangements for the transport of wounded, and to the exercises of the Kranken-Träger, or bearers of wounded. Goods waggons with end doors and platforms are the vehicles employed. The foresight of the Prussian Government in all military matters, which is now bearing such wonderful fruit, is shown by the fact that by order of the Prussian Minister of

Commerce all fourth-class railway carriages for some time past have been constructed after the new plan, with doors at their ends, so as to be available for the reception of stretchers for the conveyance of wounded men, and to afford communication throughout the whole length of the train.

In June, 1868, according to the statement of Dr. Gurlt, Professor of Surgery in the King's University at Berlin, seventy of the fourth-class ambulance railway waggons, capable of conveying eight hundred and forty recumbent patients, were ready for use. The stretchers are provided with feet with folding backs, capable of being fixed at different angles of inclination, also with hinged and padded sides. The poles are slung by being passed through leather rings, in connexion with caoutchouc rings, which in their turn hang upon iron hooks covered with leather fastened into the upright posts of the carriages. This is said to furnish an extremely perfect mode of suspension, and at the same time, the india-rubber is prevented from deteriorating so soon as it would if it were in direct contact with the metal hook above and the pole below.

The waggons are well lighted and well ventilated, the sick recline in them commodiously and suffer little from jolts; the beds, six on each side in two tiers, are easily approached owing to the width of the passage which extends the whole length of the waggon; the waggons themselves communicate by draw-bridges, so that the sick can be looked after by the minimum number of attendants. To make this system complete, Dr. Gurlt recommends that a special waggon with communicating drawbridges be joined to the others for the accommodation of the sanitary *personnel*, who could there wait, repose, prepare food, refreshments, medicines, dressings, etc., and keep the necessary instruments and appliances. For many of the above particulars we are indebted to Professor Longmore's larger treatise on ambulances. In his shorter paper in the report now before us he describes another method of placing the stretchers on semi-elliptical steel springs, fixed at one end by projecting spikes driven into the floor of the carriage, while the other end is free and fitted with a small iron wheel or roller. The stretchers are not placed directly upon the springs, but three poles having been laid crosswise as to the waggon, and supported by crutches on the tops of the springs, the stretchers rest on these, lengthwise as regards the waggon, and therefore in the direction of the movement of the train. Mr. Longmore states in a note that since his report was written the swinging-pole litters have been abandoned, and the floor-spring stretchers, as above described, have, with some modifications, been adopted for use in the Prussian service. Mr. Longmore having in his own person tried both plans on the Stettin Railway between Berlin and Landau, he found the swinging motion in the suspended litters, and the jolting in those fastened by springs to the floor, greater in each instance than was desirable, and on comparing the two systems he had no doubt as to the superiority in every respect of the suspended litters, but still the condition of a patient carried by either plan would be far preferable to that of one lying on an unprotected stretcher or on straw on the bottom of the carriage. Mr. Longmore does not inform us of the reasons which induced the Prussian authorities to finally adopt the floor-spring system. It certainly appears to us, supposing the carriages to have upright posts or roofs sufficiently strong for the suspension of the litters, that by that mode of arranging them in two tiers the accommodation attained would be double that supplied by having merely the superficial area of the carriage available, by which plan also the advantage of having the passage along the body of the carriage would be lost. On this point, however, the observations of the Surgical critics on the scene of action will doubtless shortly furnish fuller information.

The "Kranken-Träger" or sanitary bearer companies of the Prussian army are a regularly organised and thoroughly instructed corps. By a warrant issued in 1867, a bearer company of 120 men, under the orders of a major, has been attached to each division of a *corps d'armée*. It is not expected, however, that even this number will altogether do away with the necessity of taking private soldiers from the ranks as auxiliary bearers on extraordinary occasions. The bearers do not in any way act as Hospital attendants, and during peace they do regular duty in the ranks, but go through a course of instruction annually from January 1 till the end of March, two hours weekly being devoted to it. During May, all the bearers of each *corps d'armée* are concentrated for ten days, and drilled and employed in practical exercises as bearers. The advantages of such a system are obvious, but Mr. Longmore informs us that no corresponding plan yet exists in the English army, in which uninstructed bandsmen are supposed to be available for the purpose of carrying off the wounded; but no military regulations exist to insure the systematic execution of such duties in the field by bandsmen even if they were competent for their performance. About one-fourth of the English Army Hospital Corps—the strength of which is little more than four hundred—has been instructed in these duties, but their number is quite insufficient, and during war the services of all these men would be required as Hospital attendants, and they would not, therefore, be available for the carriage of the wounded.

Mr. Longmore sees considerable difficulties and objections to the plan of converting regimental bandsmen in our service into a corps of sanitary bearers, and would prefer the introduction of the Prussian system of training men for that purpose from the ranks; and we certainly agree with him that, whatever may be the numerical strength of an army, the number of trained men for taking care of its wounded on the field of action should be proportionate.

In the means for recognition of dead and wounded soldiers on the field, it would also be well that we should follow the example set us by the American and Prussian armies. Mr. Longmore describes the "identifiers" employed in each army, the best being a ticket of flexible waterproof oilcloth constantly worn round the soldier's neck, and having inscribed on it with a special ink—printing ink diluted with boiled oil, so that it can be used with an ordinary pen—his name, regiment, birthplace, and name and address of nearest relatives. The information given by the American authorities to the relatives of deceased soldiers, whether in peace or war, includes even the place of burial and the number of the grave. It is hopeful, in the midst of all the horrors of war, that so much attention should be directed to the means of succouring the wounded and satisfying the anxiety of their relatives; but we should take no small shame to ourselves as a nation that our share in the good work should for so far have been neglected.

MISTAKES IN DIAGNOSIS.

It is worth while, in the face of the returns made regularly in the Registrar-General's reports of special "zymotic" diseases, to compare with them the accounts which reach us from the special Hospitals designed to receive such diseases. From the report of the Hampstead Fever Hospital, which we reviewed recently, it appears that at various times such large proportions of the cases sent into the Hospital as 40 and 50 per cent.—indeed, in one month 54—were those of patients not really suffering from the diseases stated in the Medical certificates under which they were admitted, and for the reception of which the Hospital was erected.

Dr. Murchison, in his report of the Fever Hospital at Islington, bears witness to the same facts, and makes very just complaints on the subject. When it is seen, too, that the diseases thus falsely diagnosed were such as "aneurism," "softening of the brain," "pains from constitutional syphilis," "phthisis," "simple pneumonia," "acute gastritis," etc., we are led to think either that great carelessness is exhibited by

those who had the sending up of the cases, or that an amount of incompetency greater than we were willing to admit exists among parochial Medical officers. Even admitting the great difficulties under which such Medical men lie—such as the visiting and forming of diagnosis in bad lights, the investigation of rashes on persons with dirty skins, unwillingness on the part of the patients themselves to answer questions, etc.—it yet remains that an amount of non-contagious disease finds its way into special Hospitals, which must operate injuriously in many ways. What can be worse, for instance, than in times of epidemics, when every available bed may be required, to fill these beds with patients who not only exclude real sufferers, but are themselves exposed to a contagion by the very means taken to protect them? And what can give to the public such great alarm as false and exaggerated returns, swollen by errors in diagnosis? Perhaps, if the numbers recorded by the Registrar-General were corrected by the actual results of Hospital practice, we might have our ideas of epidemics so far altered as materially to influence our proceedings in the erection of new Hospitals.

Medical officers of parishes and unions are keenly susceptible to what they consider the stigma of having patients returned on their hands, and this may, and doubtless often does, operate disadvantageously in the early removal of infectious cases; but such hesitation should never extend beyond the domain of really *doubtful* cases, and such will occur in the practice of the most skilled expert. To take the recent epidemic of relapsing fever, it is quite certain, if all the instances had been well differentiated, the London Fever Hospital would have been all-sufficient, with the extra beds provided, to have treated the disease, and that the Hospital at Hampstead (from which, however, we learnt something in the way of rapid building and furnishing), would never have been needed. Will the new Hospitals at Stockwell and Homerton be ever properly filled? The real truth is, we fear, that parish officers are so overworked and underpaid that they have simply not the time to make a careful examination of patients. Either it is this or else the stamp of the licensing bodies is shown to be valueless by the stern facts of practice.

Clinical teaching has not surely attained its development in this country when such things as we are speaking of can occur; indeed, it is only necessary to witness the way in which many senior students set to work to examine a patient to know how imperfect has been their teaching in this all-important department. And if mistakes are made between an "aneurism" and a fever of a special kind, how many cases of real undoubted fever are overlooked, and allowed to remain, spreading infection? Never until this radical omission in Medical education is supplied can we hope to even approach the stamping-out process of contagious diseases. The district Medical officer ought to be a unit in a model organisation, composed of the best stamp of men in the Profession; but we shall vainly hope for a better state of things whilst the niggardly salaries of guardians continue. Perhaps the result may be better when all accounts are paid from the "Common Poor Fund"—a process involving greater liberality because the burden will be less felt by the poorer parishes.

But, whilst blaming the guardians, we must acknowledge that a portion of blame still rests with our system of Medical education. As long as students are permitted to neglect clinical study in the full consciousness that they shall nevertheless see appended the signatures of Hospital Physicians and Clinical Teachers to their schedules, we may expect but little improvement. Something will be done by the exertions of the examining boards, most of which have now instituted some form of clinical examinations. But it is a mistake to suppose that examinations can do more than supplement education, and it is to the teachers of our Schools and Hospitals we must look to remedy the evil on which we have commented.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. IV.

Of all the powers which struggling and wearied men have in all the ages desired, perhaps one of the most earnestly and widely longed for has been the power of compelling, at will, the presence of "Nature's soft nurse," sleep.

> "Sacred rest,
> Sweet pleasing sleep, of all the powers the best,
> O peace of mind, repairer of decay."

In sorrow, in pain, in weariness, in all times and kinds of distress of mind or body, how it is desired, and craved after! And of all men we Medical men know best what a priceless boon it often is, and have most anxiously sought after the means of producing it. And, though the experience of successive generations of Medical Practitioners has continually deepened and widened our knowledge and appreciation of the wonderful properties and inestimable value of opium and its derivatives, yet the thoughtful and farsighted among us have ever looked and longed for the time when we should discover some drug which, while possessing all the beneficial qualities of opium, should be free from its powers for ill. This hope and desire were well expressed by the late Sir J. Y. Simpson, when, some years ago, in speaking of the past and the future of therapeutics,(a) he predicted that, among the new organic chemical compounds almost daily discovered, some Medicine would be found "as important as that most useful of all drugs—opium—and yet without either its constipating effects or its indirect tendency to excite subsequent nausea." And, shortly before he rested from his labours here, he had the happiness of hailing, and testing, the discovery of such a Medicine in the hydrate of chloral.

Chloral, C_2HCl_3O, was discovered by Baron Liebig in 1832, but was known only as a chemical curiosity till last year, when Liebreich, of Berlin, introduced its hydrate, made by simply adding water to chloral, as a medicine of great power as a hypnotic, and anæsthetic. The hydrate of chloral contains 90 per cent. of chloral, and dissolves so freely in water that a saturated solution contains 50 per cent.; and dissolved in excess of water it is, when pure, rather agreeable to the taste than not, a secondary, but by no means unimportant point in its favour. Liebreich's discovery of its value as a medicine is, as Dr. Richardson has observed, a brilliant illustration of a modern advance in therapeutics—"that, namely, of determining the action of a substance on a theoretical estimate, based on a precise knowledge of the chemical and physical properties of the substance." When the hydrate of chloral is treated with an alkali it is resolved into chloroform and a formate. The blood is an alkaline fluid; therefore, thought Liebreich, if the hydrate be introduced into the organism, "every small particle of it will consume the surrounding quantity of alkali, and the decomposition will be completed only after the required amount of alkali has been furnished by the blood. In the smallest point of time the minimum quantity of chloroform would be formed, and pass to its first place of action—viz., the ganglia cells of the cerebrum." On account of there not being a sufficient amount of alkali the formation of chloroform would take place, not explosively as it were, but gradually and slowly; a minimum quantity being formed in a unit of time, and acting first on the ganglia of the cerebral hemisphere, afterwards on the ganglia of the cord, and, lastly, on those of the heart. Liebreich first experimented with the substance on animals, and, finding his expectations answered, extended his researches to the action of chloral on man, and then communicated a report on the subject to the Academy of Sciences of Paris, in 1869, and has since published at least one valuable pamphlet on its properties.(b) In August of the same year, during the meeting of

(a) "Physicians and Physic." 1856. P. 100. *Monthly Journal of Medical Science*, vol. xvi. p. 359.

(b) "Das Chloral Hydrat, ein neues Hypnoticum und Anästhesien," etc. Von Dr. O. Liebreich. Berlin. 1869.

the British Association at Exeter, specimens of the medicine, and Liebreich's report, having been received in England, Dr. Richardson, at the request of the Association, examined into, and reported on, its properties. His experiments, made at that time, and more fully and extensively somewhat later, confirmed Liebreich's report, and considerably enlarged our knowledge of the valuable properties of the hydrate,(c) and he also inclined to believe in the correctness of Liebreich's theory of its mode of action. M. Personne also supports that theory, and has advanced the proof of its truth; when chloral is mixed with fresh blood chloroform is evolved; and M. Personne has also demonstrated the presence of chloroform in the blood of dogs to whom chloral alone has been administered. We may add also, before leaving this point, that Dr. J. B. Russell has found that typhus patients are very sensitive to the action of chloral, so that it must be administered to them in unusually small doses, and he points, in explanation of this, to the theory that the alkalinity of the fluids is increased in typhus; and of course the more alkaline the blood, the more rapid the production of chloroform through the decomposition of the hydrate of chloral.

But however true or false Liebreich's theory of the mode of action of the chloral may be, our chief concern is to know what its effects are. What is its real value as a Medicine? One of the earliest, if not the earliest, to try it in England was Mr. Spencer Wells, who recorded his first experiences of its use in our pages last year.(d) And since that time it has been employed so extensively that it may now be useful to gather up somewhat our acquired knowledge of its value. And first we would utter a word of warning against its reckless employment. For there does seem not a little danger of its being erected into a kind of panacea against all the ills that flesh is heir to, and that its true worth and fame may suffer from a too indiscriminate use. Its value is probably too real and great to be actually eclipsed by its abuse, but its repute may be dangerously compromised.

The hydrate of chloral ought, when used as a Medicine, to be perfectly *pure*. Impure chloral, like impure chloroform, has highly irritating properties, and when chloral is formed other chlorinated bodies besides the chloral may be called into existence, and must be carefully removed; and in the great demand there has arisen for the hydrate, and the desire to cheapen its production, there is danger of impure specimens being supplied.

Liebreich stated that the hydrate of chloral in efficient doses produces, after a short interval, deep sleep, and, when carried far enough, complete anæsthesia; that its action is without excitement, and that it leaves no bad after effects. Dr. Richardson concluded from his experiments that "deep and prolonged narcotism can be safely produced by the hydrate; that during a portion of the period of narcotism there may be complete anæsthesia with absence of reflex actions, and a condition in which every kind of operation fails to call forth consciousness; and that during the narcotism there are intervals of apparent exalted sensibility." But he observes that "the insensibility and the sleep this hydrate produces is not an insensibility and not a sleep intended to represent or to rival in action the action of the volatile anæsthetics we use for the abolition of pain during Surgical operations." And Demarquay, of Paris, in his experiments on rabbits, failed to observe any anæsthetic state, but found that these animals, though thrown into a most perfect sleep, were in a state of highly exalted *hyperæthesia*. On the whole, it appears to us that experience has shown that the hydrate is not truly an "anæsthetic;" that very large doses will produce heavy and prolonged sleep, but not true anæsthesia; certainly that anæsthesia cannot be *safely* induced by it. We know of but very slight record of direct evidence on this matter. But Professor Nussbaum tried it as an anæsthetic in the Munich Hospital; in twenty cases it caused anæsthesia in one only—a woman of weak constitution; all the other subjects experimented on experienced only drunkenness, and they said that the pain caused by operations was less severe than under chloroformisation, and sometimes even was scarcely felt; but only the one felt no pain at all. (*American Journal of the Medical Sciences*, April, 1870, from *Mouvement Médical*, February, 1870.) This report is so imperfect as to be all but worthless; but we may take it for certain that, to produce anæsthesia, the hydrate must be given in toxic dose. M. Noir relates (in the *Gazette des Hôp.*, December, 1869) a case of amputation under chloral, as a warning. The patient, a man aged 64, took five grammes of the hydrate; in two hours amputation of the leg was performed without his making a movement or uttering a cry. But the pulse then became filiform and uncountable; and a state of alarming coma lasted for eleven hours. Then violent delirium, with vomiting and pain in the stomach, came on, and lasted for eight hours, leaving the patient in the most extreme prostration, and all bad effects did not pass off for many hours longer. From smygmographic observations made by M. Bouchut and by Drs. Anstie and Burdon Sanderson (*Practitioner*, March, 1870), it appears that the chloral contracts the arterioles; and Dr. Russell Reynolds has recorded a case in which, in a lady of middle age, a dose of fifty grains produced most alarming toxic effects. "The superficial pulses were almost imperceptible, and, when they could be detected, were excessively rapid, weak, irregular, and intermittent. The heart was regular in its beat, although feeble, and intensely rapid in its pulsations." It would seem, then, that the drug produces arterial anæmia of the brain when given in hypnotic doses, and it can hardly be desirable to push that effect by very large doses. M. Bouchut considers that it is contraindicated in cases of organic cerebral and cardiac mischief; and certainly its effects may be feared in cases of fatty or otherwise weak heart.

But as a hypnotic, there is no doubt that Liebreich has placed in our hands a most valuable and admirable medicine. As a sleep-compeller, it is in a very large number of cases unrivalled; for while in power opium alone can be compared with it, it is superior to opium in this—that its use entails no unpleasant after-symptoms; no headache, no nausea, no anorexia, no constipation; and the sleep it produces is gentle, calm, and continued. That is, as a very general rule it acts thus happily, though, of course, there have been cases in which it has excited unpleasant effects, as nausea and painful dreams; and such cases will occur now and then, so long as human beings differ so greatly in temperament, constitution, and sensibility to the action of medicines.

Experience has shown it to be of great value as a hypnotic and calmer in general nervous irritability; in want of sleep from over-exercise of the mind; and in the want of sleep of old age. In *delirium tremens* it has produced excellent effects, as also in the sleeplessness which threatens the access of puerperal mania. In some forms of *asthma* its employment has been attended with very happy results. Dr. J. F. Plomley, of Maidstone, has recorded a case of a girl, a great sufferer from bronchitic asthma, in whom 3ss. doses of the drug taken a short time before threatened attacks prevented them by causing sleep. Nothing else had done good, but under the use of the chloral the attacks became less frequent and less severe, and the breathing, which was permanently embarrassed, was much relieved. He also reports a case of rheumatic gout attended with such severe suffering, that the patient, an old gentleman, had been for years in the habit of taking a large dose of opium every night, with only imperfect relief, while a 45 gr. dose of the hydrate of chloral gave from ten to twelve hours' refreshing sleep. It

(c) *Medical Times and Gazette*, September 4, October 30, and November 6, 1869.

(d) See *Medical Times and Gazette*, vol. ii. 1869, pp. 346 and 408.

has not, however, generally been found effective, we think, in subduing pain when this is very severe, as in acute neuralgia, though it does prove most valuable in some forms of suffering. There is reason to believe, as we have mentioned, that it exerts a contracting influence on the arterioles, and therefore, can relieve arterial throbbing and pain of a tensive character; and this may explain why it has been found of great service in rheumatic gout, in gout, and in similar affections. We have noticed above a case of rheumatic gout in which it gave great relief, and Dr. J. W. Ogle has also reported that, "in many cases of acute rheumatic fever, even when sleep had previously been for several nights absent or nearly deficient, the chloral has proved most useful in half-drachm doses; and in three or four cases of acute gout the pain and inflammation of the parts have quickly and quietly yielded to it; in subacute and muscular rheumatism similar results have followed." He also found it of much service in scarlet fever, "much rest, and comfort, and sleep following its use in fifteen and twenty-grain doses." But he derived most satisfaction, he says, from its employment in cases in which, by their nature, preparations of opium and morphia were contraindicated, as certain cases of cardiac disease and of brain disease in which cerebral congestion appeared to be imminent, but especially in cases of so-called uræmic poisoning, in which one would have dreaded risking the use of opium or its derivatives; and in a case of mania, convulsions, and semi-coma at times, in connexion with renal disease and syphilis, its value was very marked. In many cases of this kind general nervous tranquillity and sleep of a most comfortable kind, and frequent subdual of dyspnœa and painful symptoms, attended its employment. In some cases of heart disease he had observed peculiarly happy effects from the combination of chloral and digitalis.

We have already mentioned that Dr. J. B. Russell has tried the effects of the chloral in typhus fever. His able and very instructive report (*Glasgow Medical Journal*, February, 1870) shows that it acts very happily as a hypnotic in the delirium of typhus; and it has been found equally useful in several other forms of cerebral disturbance.

We have already alluded to its value in *delirium tremens*, and considerable evidence of this might easily be adduced. Dr. J. H. Barnes records (*Lancet*, November 27, 1869) ten cases of this disease treated by chloral, and in most of them quiet sleep was quickly induced. Dr. Cerenville found in a case of the disorder 15 grains repeated for two successive days procure sleep and calmness (*L'Union Médicale*, February 12, 1870).

(*To be continued.*)

THE WEEK.

TOPICS OF THE DAY.

It would be an easy task to moralise on the scenes which at the present moment are presented on the banks of the Saar and the Tyne. True, Monmouth is not more like Macedon than Newcastle is like Weissenburgh, and it would puzzle a Fluellen to find much resemblance between the Moselle or the Saar and our northern river. But the moral contrast is still more striking. On the banks of the Franco-German stream are massed enormous levies of armed men burning with national hate and thirsting for victory, armed with instruments of death which throw into the shade all the inventions of ancient cruelty, and are at once consummate proofs of human invention and human ferocity. There also are battle-fields still strewn with dead, and Hospitals crowded with the dying. Whilst on the English river, besides the sights and sounds of industry proper to one of the great fuel fields of civilisation, the President of the British Medical Association has been welcoming a large gathering of a Profession whose mission is not to destroy but to save, who are called together to discuss and extend the means by which human life may be preserved in physical enjoyment and health. The enormous treasures lavished on the armies of the Rhine and of the Saar will bring misery to many a hearth, and heap many a churchyard. The interchange of knowledge and experience at a great meeting of Medical men cannot fail to exert an ever-widening influence of good, which will be felt equally by the sick bed of the noble and the pallet of the pauper.

The Parliamentary session which has now closed is one which, for several reasons, Medical men will remember. The one measure passed, which will confer a special benefit on our Profession, has been the work of a Medical man. Dr. Brady's Medical Officers' Superannuation Bill is the one pleasant reminiscence remaining to us of the session 1869-70. For the rest this sitting of Parliament will only be remembered in Medical annals for having raised hopes which it has utterly disappointed; led to a large expenditure of money of the Profession, which has been entirely wasted; proved how miserably a Government—to whom we concede whatever merit there may be in good intentions—will fail, and how thoroughly it deserved to fail, when it abandoned the principles of a great measure to conciliate support from this university and that corporation, and then endeavoured to persuade an acute and intelligent Profession that what it offered them—the mere husk of the original Medical Reform Bill—was an enormous boon, and ought to be received with proper gratitude; and lastly, it has exhibited in colours of which we, as a Profession, may well be ashamed, the contradictory principles and opposed forces which are at work amongst us, the want of unity there is in the Medical world, the small regard for the commonwealth of Medicine, and the overweening sensitiveness for the interests of this or that Medical authority; as if the Profession of Medicine existed simply to benefit English, Scottish, and Irish universities and corporations, and not primarily for the benefit of the population at large, and secondarily for the good of its members. We can quite believe that the Government has had enough for the time of Medical legislation. Mr. Bruce the other night is reported to have said that he was thankful to say that a Medical Reform Bill would not come within his department. We share with Mr. Bruce his satisfaction, especially as we believe he would be utterly unable to bring into the field the necessary tact, intelligence, and firmness to carry one. Lord de Grey has also failed—mainly, as we think, from his own fault; but we can quite conceive that, now the Government have been foiled, they will acknowledge themselves tired of the whole thing. There was a tone of chagrin in Mr. Forster's answer to Mr. Beresford Hope the other night, which no doubt was very natural, after the pains which the Privy Council had bestowed upon the Bill. But the failure was, in the first instance, due to the abandonment of the principle of the Bill in the House of Lords. Had the Government refused to yield the one portal principle, and placed the General Medical Council on a wider basis, the Bill would have received the support of the most influential of the Medical authorities and of the whole Medical Profession.

We understand that the Council of the Royal College of Surgeons of England have determined to postpone the consideration of the election of examiners in anatomy and physiology separately from the examiners in Surgery until negotiations have taken place between the Royal Colleges of Physicians and Surgeons and the Apothecaries' Society for the formation of a conjoint board of examiners.

The list of twenty-four names submitted by the Council of the Royal College of Physicians to the Fellows has been approved, and the gentlemen named were elected Fellows of the College on the 28th ult. The list has already been placed before our readers. The number is larger than usual—twenty-four—and we are happy to observe that it contains the names of some Physicians whom the Profession would, we believe, have gladly seen thus honoured at an earlier date. On the other hand, it is impossible to conceive on what grounds the Council has again determined to pass over many of the senior Members of its body.

Mr. H. Alder Smith has been elected Resident Surgeon of Christ's Hospital, in the room of Mr. Thomas Stone resigned.

We understand that the Rev. Dr. W. De Lancy West, Head Master of Brentwood Grammar School, has been elected Head Master of the Royal Medical Benevolent College, Epsom.

The committee of the Society for Aiding the Sick and Wounded, after communicating with the committees of Paris and Berlin, have despatched six Medical men to the seat of war. These gentlemen will work under the Red Cross Society. Their expenses will be defrayed by the Society, but they will receive no pay. The names of the gentlemen who have been selected to serve are as follows :—Dr. Mayo, Dr. Duret Aubin, Mr. Henry Rundle, F.R.C.S., Mr. William Ward, Mr. W. Pratt, Mr. Atthill, dresser.

THE WAR AND HEALTH RESORTS.

THE present state of the Continent offers little encouragement to the invalids and holiday-seekers who desire to resort to the Alps for their autumn holiday. The continued mortality from small-pox deters hundreds from visiting Paris. If compelled to pass through, they sleep at Fontainebleau, and scamper through the streets to the railway station next day, without stopping. Some of our friends have chalked out tours in Western Brittany, where they believe they shall be quite safe from the flood of war; others propose to reach Macon *en route* for Geneva, by a roundabout way of Havre or St. Malo and Tours. But in truth, it is not only war that is to be dreaded, nor even the detention caused by the absorption of the railways for the conveyance of troops and *matériel;* but there is also the risk of being incommoded (in Paris at least) by civil dissension; and moreover no one can calculate on the passions of a population so excitable as the French, supposing an outcry to arise against the English or other foreigners. Prussian spies are said to be numerous and audacious, and many an Englishman might be taken for one. Invalids and tourists had better keep within the four seas of the realm—this year at least.

EXPLOSIVE BULLETS.

THE contributor to the *Times* of the 4th inst. who described the experiments lately tried in Messrs. Winckley and Shaw's yard, Blackfriars, for the purpose of comparing the results of explosive and plain bullets, observes that "humanity forbids killing when wounding would answer the purpose. Explosive bullets of small size are considered to be as barbarous as killing the unresisting wounded." There is, however, another view of the question which presents the use of such missiles in an impolitic light, and which may probably afford a stronger motive than even humanity dictates for not employing them. "Dead men tell no tales," and dead men require no ambulance, Hospital treatment, or food. The wounded after an engagement, who must either be carried off the field or left to fall into the hands of the enemy, contribute one of the greatest causes of anxiety and embarrassment to the commander of an army either in retreat or advance, of which source of solicitude he would be entirely relieved were each bullet on reaching its "billet" to produce a fatal result. So that the use of explosive bullets on both sides, although immensely and unnecessarily increasing the loss of life, might actually aid towards the movements of the enemy.

Four experimental shots were fired from an ordinary revolver by Mr. Adams on the occasion referred to. 1. An explosive bullet was discharged into the head of a horse. Complete death was instantaneous. There was only one report, but a little blue smoke curled out of the wound. The bones of the head were shattered; the brain was utterly destroyed, presenting merely a disorganised pulp; and where the bullet lodged at the back of the head there was a cavity seven inches long by six inches broad. 2. Another horse was killed by a plain bullet in the head. The bones were not shattered, and the brain was comparatively uninjured; and although the animal dropped immediately, the subsequent quivering of the limbs showed that death was not so instantaneous as it had been in the other instance. 3. An explosive bullet was discharged into the thorax of a dead horse. From the wound itself there was no smoke, but, on the chest being cut open, a considerable quantity issued forth. The bullet penetrated and shattered one of the ribs, and lodged in the opposite side, having produced immense laceration of lung tissue. The fourth experiment showed the comminuting effect of an explosive bullet when fired against bone. M. Pertuiset, a Frenchman, has devised the explosive powder, of which the composition, we understand, is not yet known; he claims for it perfect safety in use, but practical men are inclined to think that extensive experiments will be necessary to establish this point. Sportsmen in India have, we know, been for some years past in the habit of using, for large game, a conical bullet, hollow at the apex, and charged with a mixture of equal parts of chlorate of potass and black sulphuret of antimony. The effects have been described to us as having been very similar to those observed in the experiments above noticed.

ENGLISH SURGEONS FOR THE PRUSSIAN ARMY.

A CONTEMPORARY states than an authoritative statement has been made to the effect that the North German Government does not object to admit British Medical men as volunteers in their army Hospitals, provided that they speak German fluently, that they have the licence to practise Medicine and Surgery in the United Kingdom, that they have the permission of their Government to serve as Medical volunteers in Germany, and that they will place themselves unconditionally at the disposal of the North German Government. Considering that there certainly will be a large number of wounded French under treatment in the Prussian Hospitals, we would suggest that a competent knowledge of the French language ought to be considered as good a qualification for the purpose, as fluency in German. We publish in another column a letter from Dr. Hermann Weber, which throws some light on the question of remuneration. It can hardly be expected that Medical men should place themselves unconditionally at the disposal of the North German Government to travel about and live entirely at their own expense while employed. To any one going who may wish to have good books of reference on military Surgery and the treatment of general injuries, we can safely recommend the second volume of Holmes's "System of Surgery," second edition, which contains an admirable paper by Professor Longmore on gunshot wounds, and Hamilton's "Military Surgery," the latter being an American work published in New York.

THE MEDICAL REFORM UNION.

THE late Provisional Executive have just published a retrospect and Balance-sheet of the Union. After taking a review of the proceedings adopted by the committee in reference to the Amendment of the Medical Acts, but particularly as regards an alteration in the General Medical Council, the report proceeds to say that it has been represented in some well-informed general and Medical papers that the 9724 Practitioners who signed the Birmingham Memorial prayed for direct representation. The following quotation from the memorial bearing upon this point would show that this was not correct:—

"It is respectfully, but very earnestly, submitted, that the influence and power for good of the General Medical Council would be greatly extended, with the Profession and the public, if provision were made in a new Act of Parliament for the representation on the Council of the general body of Practitioners of Medicine and Surgery, who are now, for the most part, deprived of any Professional franchise."

The Report then proceeds to show the advantages and dis-

advantages of indirect and direct representation, and the views of the reporters seem rather in favour of indirect representation, the machinery for carrying out the plan being at hand, and that it would involve less expense and labour. The Report then gives the balance-sheet, from which it appears that the cash received amounted in round numbers to £600, the whole of which was spent in postage, printing, and stationery, and other necessary expenses for getting up and obtaining signatures to the memorial. From this fact alone, it is pretty clear that a contested election for a seat in the General Medical Council by a direct representative would be as expensive, if not more so, than most elections for seats in Parliament. Great credit is due to the Provisional Committee for the manner in which they have fulfilled their duties. They have rendered a service to the Profession which should be borne in remembrance.

PAUPER LUNATICS.

THE subjoined circular letter, prescribing certain additional duties to be performed by Medical officers of workhouses, has just been issued by the Poor-law Board:—

(*Copy.*)

"Poor-law Board, Whitehall,
"1st August, 1870.

"SIR,—I am directed by the Poor-law Board to inform you that they have received from the Commissioners in Lunacy a suggestion that the persons of all pauper lunatics should, upon their admission into the workhouse, and upon their departure from it, be carefully examined by the Medical officer.

"As the Board are most anxious that every available protection should be afforded to this unfortunate class, they concur in the suggestion of the Commissioners in Lunacy, and request the guardians at once to give the necessary directions for insuring such examination, and for preserving a record of it in each case. "I am, sir, your obedient servant,

"(Signed) H. FLEMING, *Secretary.*

"To the Clerk to the Board of Guardians."

THE EPIDEMIC OF SMALL-POX IN PARIS.

WE have much pleasure in announcing that this continues to diminish in intensity. For the week ending August 6 there were 151 deaths from small-pox, 9 from scarlatina, 18 from measles, 26 from typhoid fever, 5 from erysipelas, 42 from bronchitis, 48 from pneumonia, 80 from diarrhœa and dysentery, 5 from cholera, 12 from croup and diphtheria, 5 from puerperal diseases, 725 from various causes; total mortality, 1126.

FROM ABROAD.—MR. DARWIN AND THE ACADÉMIE DES SCIENCES—FRENCH SANITARY PREPARATIONS FOR THE WAR.

THE manner in which Mr. Darwin's claims to admission to the Académie des Sciences continue to be discussed is quite unprecedented, and not very creditable to that learned body. That so much argument and such warm discussions should be required to prove his scientific position, and his eminent qualifications for the honour which it is proposed to proffer, is somewhat derogatory to its value, as proving either the ignorance of his judges as to what he has done for science, or the inveterate prejudices which have prevented them from promptly coming to a decision which the scientific world at large would have thought the most natural possible. The last number of the *Revue des Cours* contains a full summary of the pleadings in defence—for an attack of almost a virulent character had been made—and these, conducted by MM. de Quatrefages and Milne-Edwards, though both opponents of Darwinianism, must surely carry conviction to the minds of every one as to Mr. Darwin's eminent position as a man of high scientific attainments, quite independently of his own peculiar views, which indeed themselves are based upon investigations carried on in the purest scientific spirit. The further prolongation of the discussion can only tend to the humiliation of the Academy; but it has been resolved on, so that the vote will yet awhile be delayed. M. de Quatrefages, in his interesting discourse, first occupied himself with showing up the ignorant error of confounding the views of Darwin and Lamarck and treating them as identical. He could enter into no defence of the former, having even recently published a work in their refutation, but this does not prevent his admiration of the procedures of their author in their development, and of the scientific spirit which has guided him in the application of his numberless illustrations. He also passed in detailed review Mr. Darwin's various contributions to natural science, which he contended were ample and valuable enough to justify his election without the Academy incurring the reproach of which some of its members seem to stand in such fear of sanctioning Darwinianism. One error insisted upon by the speaker has been often committed amongst ourselves—namely, the making Mr. Darwin responsible for the statements and views of disciples who really sometimes would seem to have scarcely read his works. M. Milne-Edwards observed that we must not insist too much on the word "species," because we do not know what are species. There are only forms, and one of the great merits of Darwin has been to demonstrate that these forms may vary in the most remarkable manner. In reply to the criticism which had been so lightly delivered at a former part of the discussion on the value of Darwin's work on the cirripedes, he observed that "prior to this work appearing the characters of this group were so ill-determined that their fossil remains could not be characterised; but since then the cirripedes have taken their place in palæontological studies, and no one has since dreamt of revising a work which since its publication has sufficed for all the needs of science."

In the last number of the *Gazette Hebdomadaire*, M. Dechambre has published some authorised details respecting the "Volunteer International Ambulances." The Paris committee has not for its object the mere increase of the number of Surgeons for the ambulances of the army where their numbers are notoriously too small. Those who are now volunteering their service do not wish to put themselves under military law, and consequently under the dominion of the *intendance*. They wish to bring help under different conditions than these which characterise ordinary ambulances, and which, in their opinion, by the insufficiency of the *personnel*, material means of dressing, of medicines and of food, by too rapid removals, by the forced abandonment of many of wounded, by the insalubrity of positions chosen, etc., have led to the frightful mortality during the Crimean and Italian wars, and placed the "most skilful Surgeons in Europe" in a position of apparent inferiority as compared with English and American Surgeons. They are therefore using their best endeavours, through the aid of MM. Nélaton and Conneau, to get complete independence allowed them after having their sphere of action pointed out. Four volunteer ambulances have already been prepared, each mustering twenty-seven Surgeons and assistants, with sixty *infirmiers*. The cost of fitting out an ambulance is about 150,000 francs. One of these, under the direction of M. See, is called the "ambulance of the press," at the request of the newspapers, who have subscribed 300,000 francs to the Society. The officers are fed by the ambulance, but the wounded receive their supplies from the *intendance*. Each ambulance is amply supplied with tents, litters, and all necessaries, and has twenty horses of draught, and thirty saddle-horses attached to it, the Surgeons being mounted. During a battle the ambulance is to remain in the rear; but immediately after its termination the volunteer Surgeons are to rush with their means of transport to the scene of action; and it is calculated that each ambulance with a reserve of Surgeons, with which it will be supplied, can tend from 1500 to 2000 wounded. The volunteer ambulances are also to give every possible aid by means of their numerous *personnel* to the army ambulances, which must often stand in need of this when it is considered that each of these has only its six Surgeons of all grades. By virtue of their international character, too,

they will collect the wounded even from within the lines of the enemy, protected as they will be by their distinctive costume. Their great feature, however, will be the erection of Hospitals on the spot for such of the wounded as cannot be transported. By means of tents or private houses, protected by their flag, they will at once provide for and remain with those urgent cases that do not admit of safe removal; thus supplying an important service which no military ambulance can perform. Then, while the volunteer ambulance Surgeons engage themselves for the war, they will have within call reserves of civil Surgeons who, without entering into such engagement, will be quite willing to offer zealous temporary aid. This reserve will, in fact, take charge of the portion of the ambulance which remains behind, converting it more or less into a temporary Hospital, according to exigences and means. At Metz the whole Hospital arrangements are under the charge of M. Sonard, who organised the large Hospital at Brescia during the Italian war. He has placed a Hospital with 400 beds at the disposal of the International Society.

Active as have been the steps taken to organise these volunteer ambulances, events have marched still more rapidly; and it is much to be feared that the French military authorities will have great difficulty in dealing with the mass of wounded soldiery, even with the above aid, so suddenly thrown on their hands. There is no reason to believe that any improved organisation in reference to sanitary and Medical arrangements has taken place since the cruel experience of the Crimean and Italian campaigns, and the encouraging example of the American secession war. Indeed, the Minister of War, interrogated upon this point in the Chamber, evaded a reply by declaring that such questions tended to damp the confidence of the army —not, one would think, could they be answered in the affirmative. The current number of the *Revue des Deux Mondes* contains a most important paper upon the "Sanitary Condition of the French Army," in which its defects are set forth in pointed language, and their amendment rather hoped for than expected. It is true that nothing new is stated, and we have more than once called attention to the facts dwelt upon in our own pages; but coming from the pen of so important a personage as Michel Chevalier, whose imperialistic tendencies are well known, and whose power of expression is so considerable, they may have a weight which they have not hitherto had, although, to have been of use in the present crisis, they ought to have been published long since. After alluding to the defective arrangements at the Crimean War, as detailed in the pages of Chenu and other writers, M. Chevalier sums up the causes thus :—1. The recruiting of the French army is carried too far, men being forced to serve who have not the necessary physical power, and in place of effective soldiers become an incumbrance, impeding the movements of the army, and lowering its *morale*. 2. The nourishment of soldiers in time of peace is insufficient and totally unvaried. 3. Cleanliness is greatly neglected, and in agglomerations typhus all the more readily arises. 4. The number of Surgeons is quite insufficient so that they become literally worked to death, 80 out of 450 dying during the Crimean war. 5. Two fundamental hygienic laws are constantly violated, in the overcrowding of ambulances and Hospitals, the deficiency of ventilation and the want of mobility in the ambulances. All these circumstances were represented over and over again and spoken against by men high in office, but in vain; and one after another they returned exhausted with efforts only to die as Baudens and Scrive, or with shattered health as Levy. The Italian war, three years later, found matters no better provided for, and for an army of 160,000 only 132 Surgeons were provided, so that after Solferino 8000 wounded had to be tended by nine Surgeons, while the musicians had to do duty as *infirmiers*. Linen, medicines, and the most indispensable Surgical instruments were wanting. After contrasting these results of defective arrangements with what took place during the American war, M. Chevalier observes—"One of the facts most worthy of attention is that in France the Surgeon, in order to provide himself with what he requires, is under absolute dependence upon the corps of *intendants*, while in America the Medical body resolves and acts by its own authority."

PARLIAMENTARY.—THE SANITARY ACT (DUBLIN) AMENDMENT BILL —MEDICAL ACT AMENDMENT BILL.

On Thursday, August 4, in the House of Commons, the Sanitary Act (Dublin) Amendment Bill passed through committee.

On Saturday, August 6, this Act was read a third time and passed.

In the House of Commons, on Tuesday,

Mr. Beresford Hope asked the Vice-President of the Council whether he was prepared to bring in a Bill for the amendment of the Medical Acts next year.

Mr. W. E. Forster could not answer that question. The Government were much disappointed at not being able to carry the Bill this session; but it was a question whether they could give it next year the time that had been fruitlessly bestowed on it this year.

BRITISH MEDICAL ASSOCIATION.

THE

THIRTY-EIGHTH ANNUAL MEETING, AT NEWCASTLE-ON-TYNE,

AUGUST 9, 1870, AND FOLLOWING DAYS.

(*From our Special Correspondent.*)

"NEWCASTLE" and "coals," though not quite synonymous, are yet so intimately associated in the mind that blackness was expected by many to be the prevailing attribute of the town wherein the British Medical Association has just held its thirty-eighth annual meeting. Doubtless to many southern eyes the whole district wore a murky aspect, but to those accustomed to other northern manufacturing towns—*e.g.*, those of Lancashire and the West Riding of York—the old Tyneside town looked by no means black, for, brisk and thriving as it is—*teste* its chimneys which belch forth clouds of smoke that would fain obscure the sun—the current of air which sweeps along its river to and from the sea freshens and renews the atmosphere in a manner that less favourably situated towns might envy. The displacement of air, too, from tidal influences must be a valuable auxiliary in changing the atmosphere of the two towns, Newcastle and Gateshead, which lie on either bank of the Tyne. The not-far-distant sea, too, yields its health-giving, though at times rude, breezes, and thus the smoke-laden air of the district is bestirred, and its impurities dispersed. Newcastle, then, is not so black as it is painted. The public buildings of Newcastle are not very striking. The most noteworthy is the quaint church of St. Nicholas, with its curious open-work lantern, which at once attracts the eye and gives character to the town. Right welcome was its pinnacle to the sight of the southern Medicos tired with their long railway journey, and welcome, too, were the hospitalities of that ancient hostelry the Queen's Head. Here did congregate many members exuberant with a sense of freedom almost as glowing as that of schoolboys, and yet eager for information and instruction.

Tuesday morning began with a round of calls, and a visit to the reception-room, where everybody was anxious to know who else had come. The first official business consisted of a meeting of the Committee of Council in the New Town-hall, followed by a meeting of the Council of the Association in the same chamber.

The chief business consisted in the election of an editor of the journal of the Association. The choice fell upon Mr. Ernest Hart, who was unanimously elected. The report of the Council

was then agreed upon. It was stated that, in consequence of the number and length of the papers sent in for the Hastiugs Medal, the referees had been unable to announce their decision, which would shortly be published in the journal.

The Council proposed that Sir Wm. Armstrong be elected an honorary member of the Association—a proposition which was carried by acclamation at the first general meeting which subsequently took place.

Now began those courtesies and hospitalities which mako these gatherings so delightful. The President and Mr. S. Charlton entertained a party at an elegant luncheon; after which Dr. Charlton conducted some friends to the Central Exchange, a fine semicular hall, where all the newspapers and telegrams of the day are to be found, and where also is an admirable collection of paintings and water-colour drawings chiefly by local artists. This hall, thanks to the liberality and forethought of the local committee, is thrown open to the whole Association during the meeting.

In the evening, dinner parties claimed our time, and never were elegant hospitalities dispensed with greater warmth and kindliness.

After dinner came the first general meeting, which was held in the large theatre of the Philosophical Hall. This was really the first considerable gathering of members, who assembled in strong force, and nearly filled the excellent chamber in which they congregated. Dr. Chadwick, who was very warmly received, in a short and eloquent address, resigned the chair to the new President, Dr. Charlton, who met with a most gratifying reception. Dr. Charlton, who was accompanied by the Mayor and Sheriff of Newcastle (the latter a member of our Profession) wearing their official robes, and attended by the sword and mace, then delivered his address, which was frequently and loudly applauded. The Dean of Durham, Sir Wm. Armstrong, and other gentlemen of position were present.

Dr. Stokes in proposing, and Dr. Paget in seconding, a vote of thanks to Dr. Chadwick for his address, and in proposing that he be elected a permanent vice-president, unfortunately referred to the opposition which the Association had made to the passing of the late Medical Bill, and commented upon the part which Dr. Chadwick had taken as president in actively opposing the Bill, which, they maintained, should have been allowed to pass as an instalment of Medical reform.

Dr. Chadwick, in replying, complained of the tone which Drs. Stokes and Paget had adopted towards him. This led Dr. Paget to disclaim all personal feeling in the matter. The motion that Dr. Chadwick be elected a permanent Vice-President was then carried by acclamation.

A vote of thanks to the Mayor and Sheriff of Newcastle for honouring the meeting with their presence in their official capacity was then warmly accorded, and the Mayor, in replying, expressed the hope that the town of Newcastle would carry out the advice on sanitary matters Dr. Charlton had given in his excellent address, and especially as regarded the water supply. The Mayor and other non-Medical personages then left.

Sir William Armstrong, C.B., amid great cheering, was unanimously elected an honorary member of the British Medical Association.

The report of the Council was then dealt with in detail, and carried unanimously. Mr. Watkin Williams was unanimously re-elected Secretary.

After this, sundry motions of little real importance were brought on, and after much time had been wasted and considerable altercation provoked, were rejected or otherwise disposed of.

The number of members who have signed the book in the reception-room this (Wednesday) morning is upwards of 300.

Among distinguished strangers are Kagi Shahâhbudin, Girdhârlal Daphtary, Dr. Jones, of Chicago, Dr. Martin, of Australia, and other gentlemen.

We shall give a further account of this meeting next week. In the meanwhile, we report for our readers the President's address, and the addresses in Medicine and Surgery, by Dr. Sibson and Mr. Heath.

THE PRESIDENT'S ADDRESS,

By Edward Charlton, M.D.,
Physician to the Infirmary, Newcastle-upon-Tyne.

To the Members of the British Medical Association, now for the first time assembled in our ancient city, we, on behalf of the Medical Profession in the northern counties, offer a hearty welcome. Twenty-five years ago, we had the honour of delivering the Annual Address before the then "Provincial Medical Association" assembled at Sheffield. It was on that occasion we gave a verbal invitation to meet at Newcastle; and now, after the lapse of a quarter of a century, we see our hopes realised, and that to a degree far beyond what we then anticipated. The British Medical Association, which now represents the former Society, has increased marvellously in numbers and influence; and yet throughout that long course of years, it has never swerved from its original design,—it has steadily kept in view the amelioration of the Profession, both by fostering the advancement of scientific Medicine, and by improving the status of the provincial Practitioner.

Great scientific gatherings are, indeed, not unknown in Newcastle. Our town has twice seen the meeting of the British Association for the Advancement of Science; but, for the Medical Practitioners of Newcastle and the neighbouring counties, no event of deeper interest has ever occurred than that of the meeting we now inaugurate. Before we allude to the immediate objects of the Association, we may be allowed to say a few words upon this our place of *rendezvous*, especially as so many of our members now visit Newcastle for the first time. It must be owned that this north of England metropolis, the capital at least of the coal trade, is hardly an attractive place to the stranger, unless he comes here for special objects of science or of business. Yet, within the memory of people still living, Newcastle was a pleasant residence, where many of the better county families passed the winter season. Such charms had it for the stranger, that good old John Wesley tells us he knew no town more agreeable wherein he would like to end his days. At that time, towards the end of the last century, Newcastle extended little beyond the ancient and strong walls with which it was surrounded; and in 1801 it contained, we believe, only 28,000 inhabitants. The banks of the Tyne, now resounding with the industry of thousands of workmen, were then a pleasant stroll for the worthy burgesses. In its early days, Newcastle, from its position, was necessarily one of the great strongholds of the north; it was a fortified town in the strictest sense; and for centuries after border warfare had ceased, it remained subject to all the inconveniences of such fortresses. Hence arose the narrow streets and overhanging dwelling-houses of the Tudor and Elizabethan periods, that may yet be seen in the neighbourhood of the river, and within the precincts of the ancient walls. Still, in the centre of all this crowding, there was a fine open space of five acres, the very lungs of the old town, and which remained untouched till about thirty-five years ago, when it was purchased by an enterprising speculator, who covered with huge buildings the whole of the vacant space, which is now occupied by Grey-street, Grainger-street, and the markets. About the same time, trade increased rapidly upon the Tyne, manufactories sprang up on each side of the stream, new branches of industry were developed, and the old parts of the town in the neighbourhood of the river became fearfully overcrowded. Unfortunately, while house-accommodation was thus deficient, the water supply did not keep pace with the increase of population. That increase has, indeed, not been quite so rapid as in some other manufacturing towns; but, in the ten years from 1851 to 1861, Newcastle had increased (with Gateshead) by 30,000 inhabitants, and the approaching census will possibly show a still greater augmentation. It may now be said, with almost perfect truth, that Newcastle and Shields form but one continued town, for within the last twenty years almost every rood of the banks of the Tyne, from Newcastle bridge to the sea, has been occupied by manufactories. The pleasant sail down to Shields, of which our ancestors wrote and our local poets sang, has been converted into a rapid passage by steamboats through smoking factories, while the ear is stunned by the noise of the forges and the clang of the shipwrights' hammers in the iron ship-yards. Till within a very recent period, however, the river above Newcastle was of very little use for manufacturing purposes, as no ships could pass the barrier of the old Tyne bridge; but that obstacle is now being removed, and we may anticipate that the town will soon spread in a westerly direction along the banks of the Tyne, as far as the tidal flow extends. From its position on the shore of a tidal stream, and from the steep incline on each side affording good facilities for drainage, from its now

fair supply of water, and from its proximity to the sea-coast, Newcastle ought to be a healthy town, and to present a low rate of mortality. Unfortunately, of late years, the death-rate has been comparatively high; nay, about five years ago, it rose so much that it seemed to confirm the idea long before put forth by the Cholera Commission of 1854, that the great mortality was occasioned by the neglect of sanitary regulations. It must be confessed that Newcastle suffered terribly in the cholera epidemic of 1853; but it was not the poorest and most wretched-looking parts of the town that were then most severely visited. By many it was maintained that the then deficient supply of water, or the contamination of that necessary fluid by overflowings and filtrations from cesspools into badly protected wells, favoured the spread of the disease. In reality, however, cesspools are not an "institution" in Newcastle; they hardly can be said to exist; and for the last twenty years and more, water for household consumption has been supplied from large reservoirs twelve miles from the town, and free from all danger of contamination. For ourselves, after most careful examination, we have been unable to discover the connexion, in this instance, between cholera and the water-supply, though we fully recognise the probability, nay, almost the certainty, of water being the great medium by which the choleraic and other poisons are introduced into the system. It must not be forgotten that the period of cholera visitation in August and September 1853 was one of extraordinary atmospheric stillness; that for ten days and nights during the height of the epidemic, there was a dark cloudy atmosphere, with hardly the slightest movement of the air, with a much higher temperature than generally prevails at that season of the year. Again, a few years ago, the death-rate of Newcastle rose to almost the highest place in the weekly lists, in consequence of a severe invasion of typhus fever, while at the same time there was a considerable increase of the zymotic diseases of children. This coincided, too, with an extraordinary state of commercial prosperity, and an immense increase of the manufactories on the Tyne, while there was no sufficient accommodation for the crowds of workmen attracted to the new centres of labour. The smaller tenemented houses became then fearfully overcrowded, and no doubt favoured greatly the development of the true old typhus fever that then prevailed. With the generally high rate of wages, the abundance and cheapness of provisions, and of firing, the disadvantage of overcrowding temporarily might be partially counteracted, were it not for the unfortunate and well-known fact that high wages are apt to induce a corresponding amount of debauchery and drunkenness among our labouring population. It is not of the pitmen we here speak, but of the workmen employed in our great manufactories. The pitmen form a class apart; and though many of them make it almost a rule to get drunk on the fortnightly pay-day, they are on the whole a quiet race, and their occupation is by no means an unhealthy one. There are few of the dwellings of the labouring classes in any part of the world that are better furnished and better kept than the pitmen's houses; their food is abundant and excellent in quality, and their underground labour time is comparatively short, and is now almost always prosecuted in well-ventilated pits. We have here few or no diseases peculiar to pitmen. Many of you might expect to find here cases of anthracosis or collier's lung in plenty; but so rare is that malady here that we have to obtain our specimens of it from Belgium or from Scotland. Emphysema of the lungs does occasionally occur in our mines; the pitman's asthma is well known, but it is certainly a much less frequent disorder than formerly. The pitman's life is therefore not an unhealthy one; but the same cannot be said of many of the other industries followed in this neighbourhood. We have large lead works on the Tyne, both of white and red lead, and our Hospital is rarely without several cases of lead disease from the white lead factories. We often have this malady in its most aggravated forms, and it is observed that the women suffer much more than the men, as it is the former who are chiefly employed in handling and stacking the carbonate of lead. It has been maintained that the greater intemperance of the male workmen acts as a prophylactic against the lead-poison; but we are inclined to refer their greater immunity rather to the nature of their work.

The iron and iron ship-building works on the Tyne may be said to have only existed for the last thirty years; and in these great establishments the health of the workmen ought, from the nature of their occupation, to be reasonably good. The unfortunate improvidence and drunken habits of many of these highly paid operatives, tends, however, to produce much disease; disorders of the heart and kidneys are frequent, while phthisis among these men is comparatively rare. We are not advocates of total abstinence from alcohol; we recognise fermented liquors as a gift of Providence; but, under the present drinking usages of this country, they have become an absolute curse to the working population. At every turn, the thirsty working man is confronted by a beer or spirit shops where warmth, and light, and ornament, combine to tempt him to seek that comfort of which his own drunken habits have deprived his home. The greater temperance of the higher classes has not yet reached the working man, who too often values the quality of his drink according to the rapidity with which it intoxicates. This is a mighty and a growing evil; and, sooner or later, it will become one of the great questions of the day. In this as in other matters of sanitary police, foreign countries have led the way. In Norway and in Sweden, where drunkenness formerly prevailed to a fearful extent, the sale of spirits has been limited to one or two houses in each parish, and none can be sold on Sundays. Sooner or later this great question may be most appropriately taken up by the British Medical Association, and no one can doubt upon which side the great majority of our Profession will be ranged. It will be urged, perhaps, that other sources of amusement and recreation should be provided if the one great pleasure of drinking and tavern-haunting be withdrawn from the working man. We are only now awakening to the necessity of providing gardens and parks for our working population; and Newcastle is but just arising from its slumbers on this important question. We possess here a magnificent expanse of twelve hundred acres to the north of the town, a treeless, unsheltered waste, which could be, and perhaps now will be, converted into one of the finest public parks in England.

We have alluded to the facilities possessed by Newcastle for drainage into the Tyne; and we confess we spoke thus with some hesitation, conscious that when in after days these words of ours may fall under the eyes of our more enlightened successors, they might wonder that such an idea could be entertained in an assembly of grave Medical Practitioners. We recognise daily the important part that water plays in conveying the germs of disease, and yet we speak of draining our town into a tidal river. The Tyne is, indeed, at present, a greatly polluted stream at Newcastle; but we foresee the day when its waters will become pellucid as of yore—the day when the most fruitful in evil of all modern so-called improvements, the fœtid water-closet, will have been replaced by the dry-earth or dry-ash system; when the liquid sewage, too, will be utilised, and little but pure water shall rejoin the parent stream.

Of scientific institutions Newcastle has a fair amount. The library of the Literary and Philosophical Society contains nearly 40,000 volumes; and adjoining to it is the Museum of the Natural History Society, which communicates with the Museum of the College of Medicine. The remaining part of this scientific triangle will shortly be completed by the apartments of the Mining Institute and the Wood Memorial Hall.

Our Infirmary is an ancient building with modern additions, which themselves may now be looked upon as somewhat antiquated. Constructed originally more than a hundred years ago, a considerable addition was made to the building at the beginning of the present century. These additions were certainly not greatly to the credit of the architect, for the corridor was, as in a very recently-erected Hospital in the south, carried along the south side of the building, while the wards were made to look out towards the gloomy north. Again, in 1852, three large double wards, containing 150 beds, were added at the west end. This new portion was, no doubt, a vast improvement on the older work, but it is open to the objection that it has not been constructed on the favourite pavilion system of the day, as the double wards on each flat are placed side by side, with openings in the partition wall for ventilation. A new operating theatre and reception-room, with a small pavilion ward of five or six beds, is now immediately to be commenced at the east end of the present Hospital.

Although the Hospital stands in an open space, and even in our own time was quite out in the country, it is now greatly surrounded, though at some distance, by the great extension of the town to the westward. It is objected, too, that the open area itself is occupied by the sheep and cattle markets, and that no small annoyance must be occasioned to the patients by the noise and effluvium when the sheep and cattle are crowded into this space on Tuesdays. The time is not far distant, though it may not be in the present century, when this Infirmary will be removed to some more favoured locality.

Let us now turn to the immediate business of the Association; and it must be confessed that there is work enough for us to do. We firmly believe that no more fortunate change was ever made than when the "Provincial" was altered into

the "British Medical Association." It was then that for the first time our interests became thoroughly identified with those of the Profession in the great capital city of this country. We have since then worked in full harmony with our London brethren, no longer receiving them as visitors, but welcoming them as *bonâ fide* members of the Association. It seems to us that most of the great modern reforms in our Profession have been subsequent to this change of name, to this amalgamation of provincial and metropolitan interests. Although the deficiencies of the Profession and its lamentable condition had long before been discussed in our journals, and depicted often, in language sharp and cutting as that of Junius in the last century, still, it is only within the last two decades that the whole Profession, tired of calling upon Jupiter, has unanimously put shoulder to the wheel, and moved with one accord to remedy our wrongs. United by its able journal, united still more by the cordiality engendered by their annual meetings, the British Medical Association has pushed forward in the path of Medical reform, year by year overthrowing obstacles that at first sight seemed insurmountable, and bearing ever in view the improvement of Medical education and the general regulation of the Profession. And now that final struggle for a good standard of Medical education is fairly before us. Hitherto, one great and paramount obstacle to progress was the multiplicity of sources whence licences to practise Medicine could be derived. No uniform standard of examination could be kept up; the well-meant endeavours of the Medical Council by sending out visitors of examinations gave no guarantee for permanent improvement, and universities and corporations were ever competing for licentiates, ever exposed to the deadly temptation to lower their standard of examination to attract more graduates. Against this crying evil there was but one remedy, a single portal, by which all should enter the Profession—a single but searching examination for the licence to practise. Much as we longed for this great change, it seemed as yet far removed from our grasp, when, in February of this year, the gratifying announcement was made that the very object which we sought was to be a Government question, and that a Bill, brought forward by Earl de Grey as a member of the Government, embodied in its provision the great condition of a single portal whereby all must enter the Medical Profession. It was a novel thing, indeed, but a most acceptable fact, that a measure of such vast importance should be proposed by the Government even before it was openly moved for in Parliament by the Profession. It was a happy augury of success—a sign that the Government of this country was at last becoming fully alive to the necessity of Medical reform, of which the formation of the Medical Council in 1858 was the first instalment.

There was reason, however, to fear, from the sweeping nature of the Government Bill, and the magnitude of the changes which it proposed to effect, that great opposition would be made to its progress by those most interested in retaining matters in their former unsatisfactory condition. On the whole, however, the Government measure was at first warmly welcomed by the Medical Practitioners of this country. Soon afterwards rumours arose that certain amendments were to be introduced by the framer of the Bill, alterations which might be fairly regarded as promoted by those bodies whose position, and perhaps whose very existence, was more or less threatened by the provisions of the original Bill. The universities and corporations were to retain the power of granting Medical degrees to others than to those who had passed through the single portal insisted upon in the original measure. It was alleged that these were to be only honorary degrees, and that they would not confer any licence to practise; nay, that the entering into practice was to be forbidden under heavy penalties to such graduates, unless they likewise passed the one necessary examination. The enforcement of penalties for illegal practice has always been a matter of extreme difficulty, even in cases where the individual had no qualification whatsoever, but the difficulty would be increased tenfold when the offender appears before the public armed with a university degree. This modification of the eighteenth clause of the original Bill we can only regard as likely to produce the most disastrous effects. The single gate with triple doors, through which all were bound by the eighteenth clause of the original Bill to pass, becomes no longer an efficacious barrier—it is only another addition to the nineteen universities and corporations empowered to grant licences and degrees. On the other hand, if sufficient guarantees could be obtained that those to whom such honorary degrees might be accorded would not, and could not, practise without having undergone the examination for the licence, it does not seem to us so very unreasonable that the universities and corporations should be enabled to grant such honorary degrees. But without such guarantee, this concession will be unquestionably dangerous, and must be energetically resisted.

The direct representation of the Profession in the Medical Council is the other point strongly insisted upon by this Association. The great change effected by the single licence system if adopted, seems to us unquestionably to introduce this second measure. While the universities and corporations were the sole sources of our Medical qualifications, it was perhaps not unnatural that their representatives alone, or in great part, should constitute the Medical Council; but now, when a new licensing body is to be formed, independent altogether of all pre-existing ones, the only one, too, through which Professional practice can legally be commenced, it seems to follow as a matter of course that the Practitioners admitted under this new provision are entitled to full and direct representation in the Council. As to the means by which this great change is to be accomplished, we shall not attempt here to describe them. We leave the accomplishing of these measures to abler and more practised hands; suffice it to say that we deprecate any increase in the already unwieldy and most costly dimensions of the Medical Council. We believe that without much difficulty certain representatives may be elimininated, some others may be amalgamated, so as to admit of four members elected by the Profession from England, two from Scotland, and two from Ireland; all direct representatives of the great mass of Medical Practitioners. Unless this be conceded, we feel sure that the Medical Profession will remain dissatisfied with what is otherwise a most useful measure.

By the postponement of the Bill we have now time allowed to us to recruit our strength and consolidate our forces for the ensuing campaign. The struggle may be a sharp one, as it ever is when vested interests are attacked; but the British Medical Association will be supported by the great mass of Practitioners throughout the country. It is now impossible to recede; the necessity of a single examination has been acknowledged by all parties. No fresh Medical Bill will be accepted which does not contain this provision—unfettered, too, by the so-called amendments that were proposed when the last Bill was in the House of Lords. And once that such a measure is carried, the direct representation of the Profession in the Medical Council should follow as a legitimate consequence. These two cardinal points should, indeed, be embodied in one and the same Bill. Our next Parliamentary session will be one of all-absorbing interest to the Medical Practitioner; for when the Government has, on the petitions sent in and the influence legitimately employed, declined to proceed with the recent measure, it has for the first time acknowledged the existence of an interest and of a power external to the Medical Council. That interest, that power, it will be the province of the British Medical Association to improve and consolidate. While we fully recognise the merits of the Medical Council, we are not blind to its faulty construction, which will become still more glaring when the position of the universities and corporations, as now the sole licensing bodies, shall have been totally altered by the proposed measures. And when our task of Medical reform, as far as regards Medical education, is completed, shall we be at leisure to rest upon our oars, and shall we then survey complacently a perfect system? Have we no other objects connected with the Profession on which to expend our energies? Are there no changes in our laws still to be effected, not merely as directly regards the Medical Profession, but in reference to the improvement of the public health? Some of our most time-honoured institutions are pre-eminently defective. With all our liberality of thought, and our tendency to progress, it must be confessed that in England we are in many respects wonderfully conservative. We hold pertinaciously to an institution simply because it is an ancient form of procedure peculiar to our own country. We often cannot bring ourselves to acknowledge that what was advantageous in older and in ruder times, is ill-suited to our present state of society. Our national pride is great regarding the office of the Coroner, an office now almost entirely monopolised by our brethren of the legal profession. In older times, the coroner held office more directly from the Crown; he was a magistrate, and often the sole administrator, with the sheriff, of the law in his wild and extensive district. There were then no resident magistrates, paid or unpaid, and the coroner was a necessity. The powers of such a functionary were then, indeed, remarkable; and in the wild border districts here, almost unlimited. In many cases he possessed the power of life and death; thus in a yet unpublished record of 1279, we find that William de Bellingham, coroner for Alexander the Third of Scotland, in Tynedale, which was then not under English rule, commanded that a thief taken red-handed in the

town of Bellingham should be decapitated on the spot. And when he who was ordered to execute the felon hesitated, he threatened him with instant death likewise, till he fulfilled his orders. Now, in other countries the investigation of the cause of death, which is certainly a Medical question in great part, is delegated to properly and specially educated Medical men, who are bound to report scientifically in every instance of sudden demise. It is true that Medical coroners have been occasionally appointed throughout England; but in our opinion, with a well-organised magistracy, paid or unpaid, the office of coroner might altogether be dispensed with, and be replaced by specially-instructed Medical inspectors in each district. Such inspectors might also act as the head registrars of deaths; and the unseemly differences about jurisdiction between the magistrates' and coroners' courts would become a thing of the past. We need not again refer to sanitary questions, to the prevention of zymotic diseases, to the cleansing of our cities, and to the purification of our rivers. These subjects are truly within the province of one section of our Association, and it was an auspicious day when the section of public health was formed amongst us. There is not a single sanitary measure on which Medical men are not called upon to give an opinion, and we trust the day will come, even in our own time, when hygiene will be made a special object of study, and when a long and severe course of training will be required from those intending to qualify as officers of public health. In Medical politics, as in Medical science, we must ever be students, we must ever be progressive. Fresh questions of debate and for investigation will constantly arise; and we foresee, even from our present stand-point, ample occupation for generations yet to come at the future meetings of the British Medical Association. We have before us the prevention of disease by sanitary laws; we have the subject of Hospital improvement, so admirably inaugurated by Captain Douglas Galton at the Leeds meeting; we have the coming struggle regarding the repeal or the extension of the Contagious Diseases Act, where a band of so-called strong-minded women and weak-minded men are striving to reverse the verdict of the wisest and best among the Medical Profession.

There will be, then, no lack of objects for the energies of the rising generation; and when, in after years, they peruse the records of what was done at the Newcastle meeting, we trust they will return a verdict that we did our best, according to the light we were then permitted to enjoy.

ADDRESS IN MEDICINE.

By Francis Sibson, M.D., F.R.C.P., F.R.S.,
Senior Physician to St. Mary's Hospital, London, etc.

Mr. President and Gentlemen,—Our age is marked by experiment and exact inquiry, directness of aim, and the skilled power to do the work required of us with completeness and economy. The labour of the past surpassed, but not superseded; and while nothing that has been done is lost, invention awakes invention, discovery discovery. Each advance is a fresh starting point for the future labourer. It is, indeed, everywhere taken for granted that good as this or that work may be, better work, more simple and more to the purpose, remains before us.

The ship, the bridge, the rail, the telegraph, and the gun, of the present day, as compared with the past, are types and marks of the skill, precision, and advancing energy of the time.

Medicine, too, partakes of this movement that is going on all around us. The knowledge of disease is becoming, at the same time, more accurate and more large. Each year gives us a better knowledge of what remedies can do, and what they cannot do. If the spirit of scepticism has shaken the belief of a few in the medicinal means at our command, that spirit has aroused inquiry, converted belief, which is shifting into knowledge which is secure.

Those great old forms of medicine, the tincture of the muriate of iron, the sulphate of quinine, the iodide of potassium, opium, the infusion of digitalis, an occasional shot, but not a battery or running fire, of calomel, that have served our fathers, will serve us better. We know what they can do when they are wanted and when they are not wanted; and with gathered power we apply them at the proper moment.

When science reaches forth its arms and adds to those recently discovered remedies of the day just gone by, chloroform, bromide of potassium, the newly discovered agent of this very day, chloral hydrate; so our knowledge of disease ripens, and our aims in its treatment become more precise and vigorous; and men, all men, ask themselves at each step they take, why they do this or that; reason takes the place of routine, and rational medicine becomes the common property of the Profession.

Side by side with the use of medicine, and not second to it, is the so-called hygienic treatment of disease—the study and regulation of the vital forces. The influence that the Physician exercises over the mind, and through the mind over the body; the soothing or stimulation of the nervous power; the calming of exaltation, or the stirring up of apathy; the quieting of the over-busy brain, or the spurring of the flaccid will; the repose of over-used powers, or the awaking of suspended vital functions; the subduing of the over-sensitive skin, or the stimulating of it when wan, muddy, and lifeless; the limiting of supplies to the over-fed frame, or the repair of the wasted body by the proper kinds of food and stimulants; the bringing into play, and so again into existence, muscle that had become wasted and paralysed by disease; these are among the aims that the Physician seeks to accomplish; and these are among the means which he seeks to employ; irrespectively of, but by no means necessarily without the use of medicine. These are among the agencies that you hold in your power, in the treatment of disease, and that you, each of you, exercise daily in coping with the various forms of malady, of ailment, and constitution.

There is a method of treatment, that of rest and ease, belonging to this great class, that I have been employing with deep interest in the treatment of acute rheumatism and acute gout, for some years. I think it not impossible that, as this subject interests me so nearly in its practice, it may interest you in its telling. I shall, therefore, at once proceed to narrate to you my experience in this method of treatment.

REST AND EASE.

During the last four years I have submitted all my patients in St. Mary's Hospital, affected with acute rheumatism and acute gout, to a rigid system of absolute rest, protection from external injury, gentle pressure, equal warmth, and the removal of pain, chiefly by treatment from without. Those two diseases, so often apparently identical, differ essentially, as you know, in this—that, while rheumatism attacks those whose blood and tissues are previously healthy, and is produced by overwork and exposure, gout seizes upon persons whose blood and tissues are already affected, uric acid being found in excess. In acute gout, therefore, I gave iodide of potassium, and sometimes colchicum, in the hope of getting rid of the special poison. But in acute rheumatism I gave no internal medicine during the active stages of the disease, unless it was called for by some special reason. I gave my patients no coloured or flavoured liquid to make them think that they were taking medicine when they were not doing so. I do not think it quite right; and I do not find it needful to employ such a planned system of fiction. If we do so, we complicate the observations, and we deprive ourselves of the help that the patient will give us when he understands the aim of the method of treatment.

Whatever may be the line of treatment adopted for disease, the influence of that treatment on the disease itself is less than the Physician is apt to think. The great majority of diseases tend to get well. They have, so to speak, a lifetime of their own, with its periods of growth, maturity, and decline. They are the passing tenants of the body, which they occupy, often with great injury, for a limited time. Treatment cannot change their nature—cannot expel them at once—cannot quench them—cannot materially shorten or prolong their existence. But treatment can lessen the sufferings of the body occupied by disease, shield it from outer injury, repair its waste, and support and reinforce its powers: while it can ward off those causes that tend to increase or reawaken the disease, and lessen the intensity of its action, inflammatory or otherwise, especially upon the local structures. To watch, then, the treatment of a disease, is to watch, not, so to speak, the remedy and its immediate effects, but the disease itself, and its behaviour during a certain method of treatment.

The thoughtful Physician, while taking note of this or that change in the malady, knows that such change is due mainly to the natural growth of the disease, and does not attribute it to the means which he has employed, unless he have good ground for doing so. Having, however, a complete knowledge of the natural changes through which the disease passes, from its beginning to its end, he is able, with something like precision, to say that this plan of treatment has prevented the undue development of the disease, and has lessened its evil effects on the body. In studying, then, the progress of these diseases, acute rheumatism and acute gout, under this method of treatment—by rest and ease—we are studying the disease itself, and the swaying influences upon it that this method may induce.

In the examination of these cases, I shall avoid all comparison of them with the groups of cases of these diseases observed by other Physicians, and even with those previously treated by myself in the wards of the Hospital. How can you compare one set of cases with another set? Each patient has his own character, and his disease presents its own peculiar features. Cases unduly severe or unwontedly mild are apt to come in groups, extending often over a long period; and the strict comparison of one series of cases with another becomes therefore impossible.

From the summary of the cases placed in your hands, which contains a short narrative of each patient, you will see that, during the two years and a half ending May, 1868, I have treated 101 patients on this method, and that of these 74 were affected with acute rheumatism, 23 with acute gout, and 4 with one or other of those diseases, these characters being doubtful. During a considerable period, my colleague, Dr. Cheadle, joined me in the examination of these cases.

It would be out of place for me to give you here a rigid analysis of those cases; but, taking certain points of interest that present themselves in the series, I shall consider the affection of the joints, and the inflammation of the heart in its interior and on its exterior, keeping steadily in view the influence of the treatment by rest and ease on the disease.

The Joints.—In a large proportion of the cases of acute rheumatism, the swollen and painful joints soon lost their pain, and diminished quickly in size, after the patients had been placed in bed and the inflamed parts had been drenched with belladonna and chloroform liniment, and had been surrounded by cotton-wool, with a covering of flannel pinned over it, so as to make a comfortable amount of pressure. Over all the cradle was placed, to prevent the pressure of the bedclothes, the toes being raised when the ankles were affected, so as to take the pressure of the tendons off their inflamed sheaths. The joints were usually at once relieved by the application of the chloroform, the belladonna keeping up that relief; and, as a rule, the swelling of the structures and the increased amount of synovial fluid diminished steadily from day to day, as you will see in the table illustrating this point placed in your hands. The facts speak for themselves. In one man (411, Henry T.), the knee lessened from 15½ inches on the fourth day to less than 14 inches on the sixth. In another (424, Henry F.), from 14½ inches on the first day to 12½ on the seventh. I need not mention to you other equally notable instances to the same effect, for they are printed on the table in your hands. I cannot, however, forbear mentioning one more case that excited some interest in the wards. In this patient, Mr. Salaman, now Assistant-Surgeon in our Indian army, made careful measurements of the joints without disturbing them. The right knee lessened in size more than two inches from the first day to the fourth, and, what is still more remarkable, the right wrist measured ten inches on the seventh, and less than eight on the eleventh.

Sometimes the pain and swelling of the joints remained, or even increased, raising the temperature, distressing the patient, preventing sleep, and increasing the action of the heart. Then the application of leeches, or the injection under the skin of morphia, was employed, often with great relief, and with the effect, especially after the application of leeches, of lowering the heat of the joint and the temperature of the whole body, and so of calming the action of the heart.

The inflammation of the joints entirely ceased within eleven days in almost one-half, and within twenty-one days in five-sixths of those patients that were not affected with endocarditis, and in those who were only threatened with it.

But the inflammation of the joints was much more prolonged and tedious in a large proportion of those affected with inflammation of the heart, whether within or without. Thus in less than a third of them were the joints free from pain before the eleventh day, and in almost a half of them did the pain last beyond twenty-one days. Of these last, one-half experienced a relapse, which was often brought on by the too early use of the limbs after they were freed from the fetters of pain. In every case, with the renewal of the inflammation, was there a return of the high temperature, the latter being undeniably caused by the former.

The illustration that I have given you becomes more striking if I put it into simple figures. Of 27 cases affected with endocarditis, the joints continued to be inflamed in 13 after the twenty-first day; while only 5 were so affected out of 33 of those who had no endocarditis, or were only threatened with it, as you may observe in the table placed in your hands.

This brings me face to face with the pregnant truth, that if we would treat the heart successfully, we must treat the inflamed joints successfully. By doing so, we remove four distinct causes, each of which requires from the heart a larger and more rapid supply of blood, and increased force of action. We lessen the amount and rate of the blood sent to the inflamed parts; we diminish the temperature of the body, and often the amount of perspiration; we assuage the pain that of itself frequently gives violence to the beating of the heart; and we remove that mental distress, that anxious sense, that oppresses, and may even overpower, the action of the organ.

Before I leave the joints, I must touch upon that class of cases that present the great difficulty in treatment—those, namely, that do not tend to get well—that cannot be classed with the gout series—and that yet differ altogether in their behaviour from those cases that happily form a large majority of the patients affected with acute rheumatism.

Of the 74 cases of acute rheumatism, in 19, or over one-fourth, were the joints inflamed for more than twenty-one days. In one-half of them there was a relapse, which was usually traceable either to the over-use or the exposure of the joint too soon after the passing away of pain and swelling. I find that this relapse tends to come on if the patient use the limb before three or four days have elapsed after the temperature of the body has reached its standard, and after all the joints are free from pain. I now lay down a rigorous rule of the ward, founded upon this observation; and of late these relapses have been much less frequent among my patients. And here it is that you must enlist the patients in the treatment. They nearly all desire to use their limbs, and to get up as soon as the pain has left them. When, however, you make them understand that if they do so too soon, they will have a relapse, and that, if they have, the case may become much more tedious, and may, as I have seen, give rise to that tedious and intractable disease, articular rheumatism, they then cheerfully submit to the discipline.

But, besides the relapsing cases, I found a set of patients, amounting to one in seven of the whole, that retained the joint-affection for more than twenty-one days.

Among my patients, I found that the younger the patient, the more rapid is the recovery of the joints. Thus, of those at or under the age of 20, in one-half the joints were well within eleven days; while, of those between 21 and 25, only one-fourth were so within that time. The scale turned after the age of 20; and, while in one-third of those between 21 and 25, the joints were still in pain after the twenty-first day, they were so in only one-sixth of thase who had not passed that age.

With increasing years there is a greater tendency to prolonged affection of the joints, and to relapses in those affected with acute rheumatism. I have felt that these prolonged cases, while they belong to the acute rheumatism group, are partially allied to gout, and that they tend to develope into that disease. This view is supported by the fact that several of my patients affected with gout, whose habits were not such as to engender the disease, had suffered from acute rheumatism when quite young.

I have for some time tended to treat these cases, as soon as they declare themselves, in the same way as I treat gout, giving the iodide of potassium, and sometimes the bromide, accompanied by tartrated iron, with, I think, good effect.

The cases of acute gout, on the whole, did well—all, in fact, but one of them, who died with double valve-disease and contracted granular kidney. These patients derived the same immediate relief from the use of the belladonna and chloroform liniment, the application of cotton, and the protection of the cradle. While, however, those affected with acute rheumatism gained comfort from a moderate amount of pressure over the joints, made in the manner already described, those affected with acute gout could only bear very slight pressure. This pressure was always applied, so as to be comfortable to the patient, and, if it ceased to be so, was immediately relaxed.

All the cases improved during the first few days. The joints were quite free from pain and swelling in twelve of them in eleven days, and in five more within twenty-one days. But the tendency to relapse in these cases was great, more so than even in those of acute rheumatism affected with endocarditis. Nearly half (eight out of seventeen) suffered from relapse, of those in whom the joints were well before the twenty-first day. Some of these relapses were caused by using the limbs too soon. The tendency to relapse was less frequent in those to whom the iodide of potassium was given early (usually the first day) than in those who took that medicine later or not at all.

The amount of urine increased somewhat when the iodide was given, but not always, as may be seen in the table. It would therefore appear that the amount of good done by the

iodide is more than is accounted for by the increase of secretion from the kidneys.

The results, then, of the observation of my cases of gout, shortly stated, are these: The joints rapidly improve under the influence of rest and ease, but they tend to relapse even when that method is carried out.

The tendency to relapse is lessened by the employment of iodide of potassium. It appeared to me that, when I gave iron with the iodide, the cases did quite as well as when that medicine was given alone. It is, therefore, desirable from the very first to combine the two, which I am now in the habit of doing; for it unquestionably tends to increase the amount of red corpuscles, and we know how deficient they become in acute gout. There is reason also to say that the iodide itself tends to lessen, rather than increase, the red particles, unless by its adminstration, as in syphilis, the patient is restored to health, and so makes red blood in spite of the iodide. The form that I employ is the tartarated iron. I was desirous of seeing the effects of the iodide on the disease when treated by rest and ease, without colchicum; but the few patients to whom I gave that medicine unquestionably did well, and I felt certain that in these cases it is right to give it for a few days during the acute or inflamatory period.

The Heart.—It will have been seen, from what I have just said, that, when I am looking at the inflamed joints in acute rheumatism, I am thinking of the heart.

How can it be otherwise? You see the limbs powerless; every joint swollen, tender, and painful, and the expression of deep helpless suffering on the face. The first turn of the mind is to find relief for that external pain. But you know that, within a given number of days—you may count them on your fingers—those limbs, now so inflamed and shapeless, will lose their suffering, return to the symmetry of their form, and regain their power, and with it the strong desire to escape from their enforced weariness, and to exercise that power.

But you know that, while the outworks are thus visibly attacked, the enemy is already in the citidal; and that this disease, which in its very nature attacks the limbs, in its very nature attacks the heart also, and at the same time that it attacks the limbs; that is to say, almost or quite at the very beginning of the illness.

In my cases, exactly one-half were affected with inflammation of the heart: and, in nearly every one of these, that inflammation pronounced itself by the immediate language of the heart itself, by pain in its region, by the anxious expression of the face and its dusky or glazed hue, and by the disturbed breathing. All of these may not be present at once, but they come in their order. And I would here say, that the murmur made by the blood passing in the wrong direction through the crippled valve is by no means the first indication in point of time.

In most of the cases os endocarditis contained in the paper now in your hands, the murmur was heard from the first. But some of them presented a much more impressive and more certain chain of evidence of the inflammation going on within the heart, than if you at once heard over the organ a murmur without that disturbance of the powers of life that always accompanies the disease during its acute stage.

Let me ask you to look at the case of Mary C. (475, p. 6). On admission, tightness in the chest; next day, worse, face dusky; and, on the third day, expression heavy, but brighter; no tightness of the chest; but the first sound was prolonged almost to a murmur at the apex, where, on the thirteenth day, there was a distinct but feeble murmur.

Then take the very next case (Charles H., 402). On admission, heart's action tumultuous; uneasiness over the organ; prolonged first sound, or slight murmur; but, on the fourth day, that murmur spoke out, and was heard at the apex of the heart, towards the arm-pit.

In a third, Harriet R., there was pain over the region of the heart on the fourth day. On the tenth she was better; her face was not so flushed as it had been; there was then no murmur, but on the next day one appeared at the apex, showing mitral regurgitation.

Another instance is presented by Martha H. (469), whose face was flushed on the day of admission, when she presented reduplication of the first sound at the apex. On the sixth day mitral and pulmonic murmurs were heard; and on the seventh diastolic aortic murmur.

It is interesting to note the successive variations of temperature of the body in this patient, which was 101·3 on the fourth day, and fell to 99·3 on the seventh, when all the murmurs came into play.

In all of these instances the murmur, which was generated after the cessation of the acute symptoms of inflammation of the heart, disappeared in a varying number of days, and they all left the Hospital free from heart-affection. But the result was not so happy in the last case of this class that I shall bring before you. It is that of Mary L. (457, p. 9). On the day of her admission she was very feverish, breathing was difficult, and there was pain over the heart, but no note of murmur; the temperature was 100°. On the third day she was less feverish, and there was a prolonged murmur below the heart. On the following day, when the temperature had fallen to 97°, there was less pain over the heart, and she was more animated. But, unfortunately, to overbalance this improvement, there was a mitral bellows-murmur, which was even audible, though feeble, below the shoulder-blades.

It is indeed evident that the first effect of inflammation of the valve would not be to induce regurgitation, which cannot take place till exudation is deposited on the valve, or its structure is softened by the inflammation. This prelude of the murmur—of the crippling of the valve—in the form of pain, and flushed face, and anxious expression, is of great practical value, for it enables us to treat the disease in its very infancy, and before it has had time to damage the structure of the valve.

Pain in the region of the heart was present thirteen, and pain in the chest or tightness in five more, out of the total number of twenty-eight who were affected with endocarditis. This is consistent with what we see in affected joints, where acute pain is present in the early stage, but tends to assuage when they become swollen. It was customary, when pain showed itself at the region of the heart, to apply over its seat the belladonna and chloroform liniment, with cotton-wool, or poultice; and if the suffering was great, or was not removed by the liniment, a few leeches were placed over the seat of pain, which invariably produced relief.

These cases were, so to speak, at first dumb, but their very silence of suffering told you more than the loudest rasping or bellows sound, and would by themselves merely say—here is a heart not now inflamed, but crippled by a bygone attack—bygone, but leaving its work done on the damaged structure of the heart.

In one half of my cases the heart was, as I have just said, inflamed; but, in addition to those, three-fifths of the patients in whom endocarditis was not established, presented unquestionable threatening of that disease; so that only a fifth of the whole number stand apart as being absolutely free from inflammation.

But it is not for me in this place to bring the striking phases of this disease before you, who are so practically familiar with them at the bedside. I will, therefore, at once say what was the result obtained in this series of cases, treated in the manner I have described to you. I have just mentioned those cases, amounting to twenty-two, in which there was a threatening of endocarditis. In all but four of these the first sound was prolonged usually at the apex, being, in some of them, murmur-like, or indeed an actual murmur. In twelve of these cases, this sign was accompanied by pain over the region of the heart, disturbed breathing, flushed face, anxious countenance, or general illness. The prolongation of the first sound, when present, was generally audible on the first day, and it disappeared in most cases on the seventh or eighth day.

In the four other cases there was pain over the heart, and its sounds were either absent, or unduly loud, or accompanied by pulmonic murmur. In one only were the sounds of the heart absolutely healthy.

Why, then, under these circumstances, do I say that these patients were only threatened with endocarditis, and not actually attacked by it? It is because the suffering and the signs over the heart soon passed away, and the organ was left untouched by disease.

If we turn now to the cases of endocarditis, we shall find that fourteen of the patients, or exactly one-half, left the Hospital well and free from cardiac valve-murmur. In one or two of them there was a murmur over the pulmonary artery limited exactly to that spot, the second left space. But I need not tell you that this points out no valve disease, but merely too much action, too little blood, and too thin a blood in the right ventricle; and then, as the red corpuscles and the volume of the blood increase, the sound vanishes.

The murmur as it disappeared generally passed into a prolonged sound. In eleven of the fourteen cases of endocarditis in which the patient left the Hospital free from valve-murmur, in three of those cases the prolonged sound preceded the murmur.

These cases show that prolonged first sound is closely allied to a valve-murmur, not merely by the character of its sound, but also by its actual relation to inflammation of the interior of the heart, whether established, as in the fourteen cases just referred to, or only threatened, as in the twenty-two previously alluded to.

Of the remaining cases, we held that seven came in with valve murmur of some standing from previous disease. The inference was drawn, from the loudness, situation, and quality of the murmur, the increased size and force of the ventricle, usually the right one, and the history of previous attacks, accompanied by symptoms over the heart, and followed by palpitation or shortness of breath on exertion. These seven cases came in with valve-murmur, and went out with it.

The only one of the seven cases that is open to question as to its nature is that of Mary H. (445, p. 8); but at the time we made up our minds that she also had old mitral disease, after considering the many previous attacks, the history, and the murmur, changing with the changing force of the heart, for inflammation is told in these cases by this very variation.

Of the remaining seven cases, four presented, after recovery from the attack of acute rheumatism, faint murmurs or prolonged first sound at the apex, very different from the noises heard during the acme of the disease. These four sustained, I hope, no permanent danger to the valves. The remaining three left the Hospital with mitral murmur at the apex; and in them mitral disease was probably established. I say probably, for I have, and many of you must have, in view patients who have left the Hospital with a murmur which has disappeared after a time, when they have returned as out-patients.

Pericarditis.—Perhaps one of the most striking peculiarities in the returns of these cases of acute rheumatism is the very small numbers of the patients who have been affected with pericarditis. These amount to only six. I find that I might perhaps have drawn the line so as to include two more cases, one of which patients came in with pericarditis. From the date on which that patient left the Hospital, June 25, 1869, to this, I can only find one additional case of pericarditis.

The abstract of the six cases is contained in the tables with which you have been furnished. It is, therefore, only needful for me to give a sketch of these cases. They were all males. Three of them were young men, from 18 to 21; and three of them ranged from 28 to 34 years of age. The two more recent cases were also men aged 22 and 29 respectively, the last patient being affected with gout.

It will be seen on examining the tables that a large proportion of my cases, amounting to thirty-two out of seventy-four, were at and below the age of 20, and of these only three men were affected with this disease. Besides these, two of the cases of endocarditis—John A. (435, p. 7), aged 20, and Mary L., 32 (457, p. 2)—were affected with transient friction sound, in each instance audible only one day, so that these cannot rightly be included among the cases of pericarditis.

Patients affected with acute rheumatism and acute gout are usually weakened and blanched in a remarkable manner, owing to the lessening of the whole volume of blood, and the diminution of its red particles. I gave, therefore, sooner or later, a proportion of them iron and quinine—preferring, as a rule, the old tried forms of the tincture of the muriate of iron and the sulphate of quinine. To a few patients, who were wanting in colour and strength, I employed the iron at once. I find that I gave it in the later stages of the disease to about four-fifths of those affected or threatened with inflammation of the valves, and to less than half of those in whom that organ did not suffer.

I am almost afraid to express the inference that I am about to draw; for I know that suddenly—to-morrow—I might begin to have a string of patients affected with pericarditis, and with endocarditis, producing serious and permanent mischief to the valves; but still I do feel, after pondering over it much and often, and weighing in the scale every theory that I could think of, that my inference is supported by the small number of these cases of acute rheumatism that presented pericarditis, and the happy results in those who were threatened and affected with endocarditis, so large a number of whom left the Hospital with valves faultless, so far as we could detect. But the inference is, that we do owe, to a marked extent, the small proportion of cases of pericarditis, especially in the young patients, and the happy result of those threatened and affected with endocarditis to the care which is taken to keep the inflamed joints at rest, to shield them from external pressure, and to give them ease.

ADDRESS IN SURGERY,

By George Y. Heath, M.B. Lond.,
Surgeon to the Infirmary, Newcastle-upon-Tyne.

Mr. President and Gentlemen,—So many eminent and gifted men have discharged this duty which is now mine, that to have been chosen to succeed them and to address you might well arouse feelings of pride and elation in the minds of the most distinguished. I know, however, that it is not to me personally that this compliment is paid, but rather to the Surgeons of this town and neighbourhood, whom circumstances more than any merit of my own have placed me in a position to represent. To them be all the honour arising from the choice of one of their own number to address this distinguished assembly; to me the disgrace if I fail to satisfy your expectations and to attain that standard of excellence which the many learned luminous and eloquent addresses hitherto spoken have established.

How am I to interest this great assemblage, where I see so many of the chiefs of our Profession? A mere gleaner in the great field of Surgical experience, I must not expect to tell any new thing to those who reap the full crops; or even to display the present state of Surgery with anything like completeness, or in a manner worthy of attention, before those who are the creators of its modern aspects. I may only hope to imitate the painter who puts on canvas a well remembered scene from some popular story, and endeavour to give expression to ideas already existing in your own minds.

In carrying out this endeavour, I propose to confine myself to the subject of operative Surgery; and, taking some of its main characteristics, to illustrate these from the experience of others and from my own. It will be allowed by those who are most familiar with the matter, that modern operative Surgery is characterised by the boldness and magnitude of its proceedings; by its respect for the integrity of the human body, and its reticence of the knife; and by the general superiority of its results. It stretches out its hand to regions, and takes within its grasp organs, formerly thought beyond its reach, and grapples not unsuccessfully with diseases hitherto considered incurable by scalpel or drug. Dangers and difficulties do not appal it, nor does it fear to undertake the gravest responsibility, if only its audacity is justified by the well founded hope of destroying a fatal disease, or removing one which, although not fatal to life, may yet render that life a misery, a burden so wearisome to him who carries it, that death itself is not a greater calamity than life so oppressed.

Paradoxical as it may seem, whilst in one direction it is thus acquiring new dominions, and showing itself capable of the most daring enterprises, in other quarters it lays down the knife and employs measures more sure, safer, and attended with less suffering; or it substitutes milder for more severe operations, shrinks from unnecessary mutilation of the human body, and in every way seeks to conserve it and maintain its integrity as complete as may be compatible with the object to be gained.

I claim for it, moreover, that in its bold, as well as in its milder and more conservative measures, it realises a larger and more uniform amount of success, and is thus a more useful and reliable agent than the art of former days—a success which is the more satisfactory, that, though brilliant, it is the result of sound principles, industriously sought after, and carefully carried out.

Here, then, are three characteristics, which I think we may consider the chief, or of the chief, characteristics, of modern operative Surgery. For the sake of shortness, they may be spoken of as its audacity, its conservatism, and its success.

You, gentlemen, among whom are some of the most intrepid operators of the day, will have no difficulty in recalling examples of the audacity of modern operative Surgery. You know that the boldest exploits recorded in Surgical annals have been repeated but recently; that, in obstruction of the gullet, the stomach has been opened and the patient fed through the opening; that the kidney has been cut down upon, and stones taken from it; that the aorta has been tied; that the removal of the whole upper extremity (the shoulder-blade and part of the collar-bone, together with the arm), either on account of accident or of disease, has become a not unfrequent proceeding. Upon the table before you there is perhaps as large a mass as has ever been taken away, along with the upper extremity—an immense enchondroid tumour. You know that operations which but a few years ago were counted unjustifiable, such as ovariotomy, are now established on the firm basis of success; that feats even more startling, which might even make the initiated tremble, have been undertaken

in isolated or comparatively rare instances, and with a fortunate result; that the spleen has been taken away, the kidney extirpated, as a sequel to ovariotomy; and, not to multiply examples, that the uterus has been removed several times alone, and also together with a large cyst and all its diseased appendages, constituting a large mass.

But it must not be supposed that, because these great operations are cited as illustrations of the audacity of modern operative Surgery, they have no other claim to our admiration. Many of them are successful endeavours to save life under the most unfavourable circumstances; and none were undertaken but after a patient investigation of facts, or without a careful and judicious consideration of all the aspects of the disease and of the condition of the patient. All were performed according to sound Surgical principles, and for the removal of disease in itself necessarily fatal.

Nor need our admiration of these or similar undertakings engender in our minds a recklessness of human life, any more than their execution indicates the existence of such a feeling. It is, indeed, sometimes said, and even by members of our Profession, that the performance of such operations does evince a certain want of respect for life, and that great operators are apt to look lightly upon the deaths of patients where a fatal result ensues. For my part, I entirely repudiate such thoughts nor do I believe in their existence; and I would appeal to every operator in the room to echo my opinion, and to say if he would not deprecate such a feeling as the worst foe to a really sound operative Surgery.

But if in our own ranks there are those who believe in such recklessness, we cannot be astonished that we sometimes hear opinions in the same sense expressed by individuals of the non-professional public, and the very virtues of the Surgeon, his coolness and self-possession, brought forward to attest his callousness to the sufferings of others and his disregard for the sacredness of life. No accusation could be more unjust. Because, Sir, when the Surgeon puts his knife into the palpitating flesh his hand does not tremble, nor the sight of blood affect his nerves, should he be stigmatised as cruel, heartless, and unfeeling, or regardless of human life? Surely not. This presence of mind is the result of knowledge, not of callousness —of knowledge based on experience, and of forethought. It is the result of a well-devised plan of operation. It is, indeed, the result of a true sense of the sacredness of human life, and of the deep responsibility that attaches to him who places his patient's life in possible immediate jeopardy, to rescue him from a certain but distant death. Without such a feeling, no man ever was or will be a truly good and successful Surgeon; for more than aught else—more than the love of fame or the desire of success—it impels us to those measures of precaution, of careful preparation, of minute detail, which enable us to bring to a fortunate termination the most hazardous proceedings, and thus to justify the audacity of modern Operative Surgery.

The term conservative as applied to Surgery is quite of modern origin, and dates from the year 1852, when it was first made use of by Sir William Fergusson. The conservative spirit, however, influenced the practice of Surgeons in much more ancient times, as we know from the works of Paulus Ægineta, who distinctly speaks of the excision of the joint-ends of bones, and of the removal of entire bones in lieu of the amputation of the limb.

The story told by Garengeot of the man whose nose, having been bitten off in a drunken quarrel in a wine shop, fell into the kennel, was picked up, washed, and re-applied to the face and grew there, can scarcely be quoted as exemplifying conservatism in the special sense which has been given to the term in recent years. A predecessor of mine in this town, some fifty years ago, acted quite within the strict meaning of the term when, in a case of compound dislocation of the ankle-joint, where certainly most Surgeons of that period would have amputated the foot, he merely removed the astragalus and saved the limb. The gentleman who had the good fortune to be the subject of this, at that time, somewhat unusual act of conservatism was afterwards well known to me, and walked with only a very slight halt. Another Newcastle Surgeon, who, I am happy to say, is yet hale and well, practised the excision of the os calcis some time before the mention of the phrase by which we would now characterise the operation.

It is, however, since the publication of Sir W. Fergusson's paper that the attention of the Profession has been more thoroughly roused and directed to this principle in Surgery, which, during the last ten or fifteen years, has been more and more widely acted on, and is now so completely established as to be one of the most marked characteristics of modern Operative Surgery.

The removal of diseased joint-ends of bones is at present one of our most common proceedings, and has gradually been applied to most of the articulations in the body. The excision of the separate bones of the tarsus and carpus, and of the whole shaft of long bones, is not less frequent; and even such bones as the shoulder-blade and collar-bone have been several times removed, the extremity which they support being preserved.

It is interesting to note the advance which has taken place, in a conservative direction, in the method of performing resection, itself the stronghold of conservatism. The external incision, at first more or less complex, has been reduced in most situations to a linear and less extensive one; the amount of bone thought necessary to be removed is less; and recently the practice of subperiosteal section has been adopted, by which an important structure is preserved and reparation favoured. After excision by this method we rarely meet with those cases of withering, the result of too extensive removal of parts.

Even in what we might call the hostile territory of amputations, the same principle is at work, leading us to remove limbs at points as far distant from the trunk as possible, as in the amputation through or immediately above the ankle-joint, instead of below the knee, and through the knee instead of at the middle or lower third of the thigh. Few amputations are followed by a more satisfactory result than that through the knee-joint, when done so as to leave an anterior flap to cover the end of the bone, from which the articulating surfaces need not be removed. The wound heals rapidly; no raw surface becomes exposed; and a shapely useful stump is the result. These conservative amputations possess several advantages, since they not only leave a more serviceable stump, and interfere less with the symmetry of the body, but they also increase immensely the patient's chances of life.

The cast upon the table was taken from the thigh of a young woman whose recovery would assuredly have been much more doubtful had amputation through the mid-thigh been resorted to. Her leg had been frightfully mangled in a steam threshing-machine, and the bones broken into small pieces up to the knee-joint; a quantity of blood had been lost; and, when seen, she was in such a condition of collapse that the propriety of an operation seemed doubtful. It was just possible to obtain an anterior flap to cover the end of the femur; and, death otherwise certain, amputation through the knee was done. The pulse afterwards was barely perceptible, and for thirty-six hours it seemed most unlikely that life should be preserved. Subsequently she rallied, and restoration to health was ultimately rapid. She was able to be out of bed in fourteen days, and the stump entirely closed in a very short time.

A peculiar signification is given to the term "conservative" by Sir W. Fergusson, who uses it to designate those operative measures by which limbs or other parts of the body are more or less completely preserved. Such proceedings as have been already mentioned come strictly within this meaning; so, too, would some of the modern operations for the removal of growths from the jaws and the neighbourhood of the orbit. Malignant growths occupying the ethmoid cells and displacing the eye outwards, as well as exostosis springing from the os frontis, may be extirpated by means of a proceeding which preserves the nasal bone, and, as a consequence, the contour of that important feature the nose. This bone is raised up along with the skin covering it, so that it may be laid down again in position after the operation and preserved; the only structure absolutely removed along with the diseased growth, in addition to portions of the ethmoid, being a part of the nasal process of the maxillary bone. The mark left after this measure is exceedingly trifling.

The treatment of an ordinary compound fracture could not be looked upon as fully within the meaning of conservatism in Surgery; but I know no other term which can adequately describe the carrying through to a successful termination a case of such aggravated injury as would raise the question of the propriety of amputation.

There are, perhaps, few questions in Surgery which afford a greater test of judgment, experience, and decision than that which we have to ask ourselves in certain cases of injury—Shall this limb be removed or not? When the question has been answered in the negative, there are also few cases which afford a greater test of our patience, perseverance, and readiness at expedients, watchfulness, minute attention to details, and capability of using mechanical forces.

One at least of the most important elements in the successful treatment of such cases is to be found in the great principle of

rest, as carried out by means of apparatus which shall at the same time perfectly support the limb and retain it in position, and allow dressings to be applied without disturbing it.

The large number of collieries in the neighbourhood of Newcastle, and the variety of works in and around the town, have always afforded Newcastle Surgeons only too many opportunities of treating these injuries; and our predecessors at the Infirmary, who were also almost invariably Surgeons to some of the collieries in the neighbourhood, gave attention to this part of Surgery. Upon the table is the original splint invented by Mr. McIntyre, which still bears his name, and of which various modifications have been made: the splint which I remember as being in use at University College Hospital in London, in Liston's time, and bearing his name, being one. McIntyre was exceedingly careful and also successful in his management of compound fractures; and, owing to this success, his splint obtained great celebrity. There is an adjunct to this splint, upon the use of which McIntyre himself laid great stress, but which is now frequently neglected: I mean the sock by which the heel should be supported and raised. McIntyre thought that, by means of the sock, the bones in oblique fractures could be brought into better apposition, and the heel at the same time relieved from pressure, so that the formation of a sore upon the heel, often very troublesome in compound fracture, might be prevented. The disuse of the sock is an interesting example how a part of a plan of treatment, thought important by the originator, may be forgotten and left out by his followers, and shows why they may not obtain the same successful results.

The McIntyre splint, though a very useful apparatus, has a disadvantage. It does not admit of dressings being applied to the under surface of the limb without raising it. Another Newcastle Surgeon (not now practising), a member of this Association, Dr. Greenhow, invented an ingenious sling-splint, of which there is also a specimen on the table. The limb in this apparatus is supported by short lengths of bandage, any one or two of which can be removed without disturbing the position of the limb, so that dressings can be applied to any part.

A third splint, a modification in some respects of Dr. Greenhow's splint, was introduced a few years ago by my friend Dr. Gibb. It is so ingeniously arranged that, while as a whole it forms an excellent cradle for a fractured limb, it admits of being taken to pieces, the separate parts serving as leg, arm, or thigh splints, as may be required.

Having been led into this digression on the subject of splints by a desire to mention those which have been invented by Newcastle Surgeons, I may observe in addition that all large heavy apparatus for the lower extremity, whether fixed or slung—although the remark which I am about to make applies less forcibly to sling-splints—have this disadvantage: that, whilst it is easy to fix the foot and the lower portion of the fractured limb to the apparatus, it is not easy to fix the pelvis. Hence, in various necessary movements of the patient, the pelvis moves, and, as it is the side of the pelvis corresponding to the sore limb which is most easily raised, it happens that the pelvis gradually turns upon itself, dragging with it the thigh and upper portion of the fractured limb; so that, while the foot remains straight, the pelvis turns partially on to the side, the thigh and knee are turned outwards, and the bones are displaced. To avoid the deformity which might ensue from this gradual alteration in position, and the frequent readjustment of the limb which would be required to rectify it, I generally make use, when reparation has fairly commenced and the bones are beginning to unite, of simple side-splints, furnished with brackets at the site of the wound, so as to admit of dressing without moving the limb. These splints have also another advantage—viz., that, where there is a great tendency to displacement, such as we often see in the lower third of the leg, they admit of lateral pressure being made in opposite directions by means of pads of unequal thickness, the pads not being placed opposite to each other, but at alternate points on the opposite sides of the limb. In this way, the most obstinate displacement may be overcome.

As I have assumed that we are more fortunate in saving severely injured limbs than were our predecessors, the question may fairly be asked, by what particular means this result is obtained, seeing that thirty years ago the ordinary principle of fixing the limb and keeping it at rest was enforced, as at present, by suitable apparatus; and that the rest of the treatment was also in most respects similar to that now in use, such as the removal of broken pieces of bone, the practice of incisions when required, and so on. I would reply—1. That the attempt to preserve limbs is made more frequently at present, modern Surgery being more thoroughly conservative; 2. That we have a greater choice of, and also improved, apparatus for keeping the part at rest; 3. That our knowledge—though still very incomplete—of the mode in which some of the most frequent cases of failure in the treatment of these injuries, as well indeed as of other wounds, are caused has increased of late years, and therefore our power of coping with them has also increased.

This brings me at once to the verge of two large and weighty subjects—Hospitalism and the use of antiseptics, the consideration of which, however, is quite beyond the scope of my design. I should merely wish to observe that, while I believe that the employment of antiseptic agents constitutes an important principle in modern Surgery, I also think that their use has scarcely received so unprejudiced a consideration as it deserves in consequence of its being so much identified in the minds of the Profession with one particular method, one special agent, and one peculiar theory of disease.

It happens now and then that our attempts to save limbs, though successful, end in disappointment; the limb preserved being from some cause less useful than an artificial limb, and a source of discomfort to the owner. Such a misfortune may occur in consequence of an extensive destruction of integument, so that a raw surface which nature has not sufficient resources to cover in is left, to the continued annoyance of the patient, who will sometimes ask to be relieved of the extremity which it has taken so much trouble to preserve. We might fairly consider the new proceeding of grafting a portion of epidermis upon the gap to be filled up as, in such cases, partaking of the nature of conservatism. Or this inutility may arise from mal-union, the causes of which I need not here enter upon.

There is here a cast of a badly-united leg, which was almost useless, and the seat of constant pain. The patient would gladly have exchanged his burdensome limb for a wooden pin, but acting in the spirit of conservatism, although the word was not then used, I cut out a wedge from the projecting tibia, divided the fibula with cutting pliers, and set the bones straight. The result is seen in the fellow cast. This operation was performed more than twenty years ago; but I had an opportunity of seeing the patient a few days since, and he informed me that although the leg operated upon is somewhat shorter than the other, he has never experienced the slightest inconvenience, and for these twenty years it has been a good serviceable limb to him.

The term conservative as employed and understood by its distinguished originator does not, as already indicated, entirely cover the tendency of modern operative Surgery to abstain from the use of the knife, and substitute other milder and safer proceedings. I shall venture, nevertheless, to include among these illustrations of the conservatism of modern operative Surgery some such examples of abstention from the knife, since the spirit which pervades them is absolutely identical with that of conservative Surgery.

There are few structures of the body which have been the field of more brilliant and daring operations than the arterial, whether these have been executed to stanch the flow of blood from a wounded vessel or for the cure of aneurismal disease. Such operations have been oftentimes as successful as they have been daring, but too often, also, they have been brilliant failures, followed by a fatal result; sometimes life has only been preserved at the expense of a limb. Much has already been done in modern times to diminish the number of such failures and to further the conservation of limbs by the employment of mechanical measures in the place of cutting operations. In carefully adjusted position, for instance, we have a ready means of modifying the force of the arterial stream. The mere elevation of a limb exercises considerable influence over its circulation; but other positions, such as extreme extension and flexion, either with or without elevation, may be so employed as to keep the blood stream under almost perfect control.

A young woman was admitted into University College Hospital, a good many years ago now, whilst I held the office of House-Surgeon under Liston in that institution, with a wound of the superficialis volæ artery, inflicted by the point of an oyster knife. The injury had been done some days before her admission, repeated attacks of bleeding had occurred, and vain attempts had been made to secure the ends of the vessel in the wound; the hand was swollen and inflamed, and the wound in a sloughy condition. I had her arm raised very high upon pillows, and stretched out in the extended position by bandages to the hand, whilst irrigation with cold water was employed to the wound, which was uncovered. No bleeding recurred. At the time I believed that the elevation of the limb was the sole cause of the arrest of bleeding, but I am now inclined to

think that the extended position of the arm was also not without some effect.

My attention was first drawn to the effect of this position two years ago by one of the Surgeons of the Lariboisière, who informed me that he had ascertained by experiment that by extreme extension the force of the arterial circulation might be materially modified. I have myself experimented upon this position, and find that, in thin persons particularly, extreme extension, or, as it may be shortly called, "over-extension," of the elbow-joint enfeebles the pulse at the wrist, and where the elbow-joint admits of being so extended that the end of the humerus presses forwards against the artery the pulse is entirely extinguished. Abduction of the shoulder-joint and over-extension of the wrist aid this effect. In the lower extremity, if a hard cushion be placed under the buttock, and the hip and the knee-joints over-extended, the pulse at the ankle is also very greatly enfeebled. I have not employed this method in cases of actual bleeding; but although the position might be difficult to enforce, believe that it would be useful, at least as an auxiliary measure.

The power exerted by the bent position of a limb, or over-flexion upon the blood-stream, first came under my notice a good many years ago in this way. In the year 1848 or 1849, a travelling jeweller, who had a booth at one of the periodical fairs in this town, having occasion to get up in the night, struck his leg, whilst walking across his booth, against the sharp projecting end of the broken top of one of his jewel-cases. He fell to the ground in a fainting state, and Mr. Featherstonhaugh, a Surgeon here, was hurriedly sent for to see him. Mr. Featherstonhaugh found a punctured wound high up in the leg, passing deeply between the bones, and bleeding furiously. Being alone in the middle of the night, and without instruments, no operation could be attempted; and he endeavoured to stay the bleeding by plugging. This was utterly impossible; in spite of his efforts, the blood continued to well up from the wound like water from a spring. Mr. Featherstonhaugh was at a loss for a time what course to pursue, when it occurred to him to bend the leg forcibly upon the thigh. The flow of blood was at once slacked, and pressure by pads now easily arrested the hæmorrhage. The bent position was not kept in this case, and bleeding recurred, on account of which I saw the man with Mr. Featherstonhaugh, and ultimately the anterior tibial was ligatured at the wound, and a piece of broken glass removed from the interosseous membrane. This case was reported in the *Lancet* at the time, and was quoted by Mr. Guthrie in his lectures at the College of Surgeons as a good example of his own principle of treating wounded arteries. The point, however, in the case which I now wish to notice is the marvellous effect produced by bending the knee. This effect was never forgotten by me, and since that time, but more particularly of late years, I have frequently had recourse to this expedient to stay arterial bleeding, sometimes temporarily, often permanently. For some time I hesitated to trust to this proceeding alone. Latterly, however, I have frequently done so, and have treated wounds of all the vessels of the forearm; of the radial, in the middle of its course, and near its termination, between the metacarpal bone of the thumb, and that of the forefinger; of the ulnar and its upper third; the superficialis valve and the palmar arch, by flexion of the elbow. I have not had such frequent opportunities of testing this means in the lower extremity, but have employed it occasionally to restrain secondary bleeding from stumps, with marked success, and also in a case of malignant disease in the lower third of the tibia, where profuse hæmorrhage followed an exploratory incision.

A French Surgeon has recently impugned the efficacy of flexion as a blood-stopping means. I have therefore had some experiments done at the Infirmary here, with a view to test the effect of this position upon the pulse at the wrist, and at the ankle.

These experiments were done at different times, and on several different individuals, by Dr. Page, our excellent House-Surgeon; and by myself separately, with the assistance of Mr. Kaye, my dresser, with the following results:—

A. *Upper extremity.*—1. Forearm bent on arm by muscular action of the individual experimented on. In persons with considerable muscular development, pulse at the wrist entirely stopped.

2. Forearm bent on arm simply, with the hand flat on the shoulder. Pulse weak and indistinct, sometimes quite stopped; this rarely.

3. Forearm bent on arm, with hand pronated. Pulse more weakened, sometimes stopped.

4. Forearm bent on arm, hand pronated and extended. Pulse usually quite stopped.

5. Forearm bent on arm, hand pronated, and bent at wrist. Pulse either almost imperceptible or quite stopped.

6. Forearm bent on arm, with a roll of lint or cambric pocket-handkerchief, rolled up and laid in bend of elbow. Pulse always entirely stopped.

B. *Lower Extremity.*—1. Leg flexed on thigh. Pulse in posterior tibial artery much weakened.

2. Leg flexed on thigh, and high on abdomen. Pulse in posterior tibial stopped altogether almost invariably.

3. Leg flexed on thigh, with a roll of lint or cambric pocket-handkerchief laid in the bend of the knee. Pulse stopped in some cases, not always; but with flexion of thigh on abdomen also, pulse invariably stopped.

4. Thigh flexed on abdomen, the trunk bent forward. Pulse materially weakened.

From these experiments, as well as from those cases of actual bleeding, in which this method has been used, it may be fairly inferred that we possess, in over-flexion, a blood-controlling agent of considerable power, which can be applied on the shortest notice, which requires neither instruments nor apparatus other than can be obtained in the poorest cottage; which can be put in force by any one possessing neither special knowledge nor operative skill; which is not dangerous in itself; and which may be relied upon with certainty to restrain bleeding, at least temporarily, even when it may fail permanently to arrest it. The bleeding from a wounded artery is so striking a thing—so many circumstances concur to attract the eye and arrest the attention—the crimson blood flying in jets across the room, or welling from the wound; the deathlike aspect of the bleeding man—his livid pallor and convulsive agitation. These are so appalling, the absolute danger is so great and imminent, that we do not wonder if the ordinary bystander is palsied by affright, and the Surgeon himself deeply impressed by the gravity of the situation. It is to such a scene that suddenly, and without preparation he may be summoned, perhaps to some remote place, perhaps in the middle of the night. Without assistants, except the terror-stricken spectators, who encumber the room; by the flickering light of a candle, a practised operator might hesitate to undertake the search after the wounded vessel.

If, then, at such a time the mere flexion of a joint will remove the danger, allay the tumultuous excitement, dissipate the apprehension and anxiety, and relieve the Surgeon from an embarrassing and perhaps doubtful operation, were it only temporarily, it is surely a valuable addition to our resources.

But when I find that in the upper extremity over-flexion may be relied upon as a permanently efficacious measure, enabling us, in wounds of the palmar arch for instance, to avoid a tedious and perhaps mischievous dissection in the palm, or the ligature of all the arteries of the forearm or of the brachial; when I recall to mind the controversies which have prevailed as to the best treatment of repeated and secondary hæmorrhages; the choice offered to us between a tedious, difficult, and uncertain dissection in the midst of an ill-conditioned wound, or among a huge collection of clots, in search of the bleeding orifices, and a serious operation to ligature the trunk, in the lower extremity at least—an uncertain, not always effectual, and sometimes dangerous, proceeding; when I read in the most recent systematic works on Surgery, that secondary hæmorrhage from the deep arteries of the leg is a sufficient reason for amputation, and remember that I have myself seen a person narrowly escape amputation of the hand in consequence of wound of the palmar arch, I cannot but think I am justified in offering to your consideration this method as an illustration of conservatism in Surgery. If you consider this account tedious and unnecessarily long, I must express my regret; but as this mode of staying the flow of blood from bleeding arteries is only just mentioned in the last edition of Mr. Erichsen's "Science and Art of Surgery," and not even alluded to in Mr. Holmes's, the most complete and popular systematic works on Surgery of the day, it seems that some account of my own experience of the effect of position might not be altogether uninteresting.

A more remarkable example of abstention from the knife is to be found in the pressure treatment of aneurism. Sir Wm. Fergusson remarks that when Hunter tied the superficial femoral for the cure of popliteal aneurism he performed a great act of conservatism; but modern Surgery has acquired in the same direction results still more important and more beneficial to humanity; aneurism of nearly every artery in the body, including the carotid, the subclavian, the iliacs, and the aorta, having now been cured by pressure. The old or slow

pressure method was an advance upon the ligature; but what I believe was first named by myself—the "rapid pressure treatment"—must be considered to be in some respects even a greater improvement upon the elder plan. Having arranged to read a paper upon this subject, it is not my intention now to enter into it; but here in Newcastle, where the method originated, it could not be passed over without mention.

The rapid pressure treatment may be considered but the natural development of the elder method, and, like so many other triumphs of modern Surgery, owes its practicability to chloroform. Having been myself somewhat concerned in its introduction, it would not become me to speak too strongly in laudation of it.

I should rather leave to those who best knew what dangers encompass him who is submitted to the knife and the ligature—the shock, the suppuration, the erysipelas, the pyæmia, the gangrene, and the secondary hæmorrhage—the appraisement of a measure which, after a few hours' sleep, leaves the awakened patient free from his disease, with no wound to heal, no further risk to run, and to say whether any Surgical proceeding ever more truly deserved the application of the old maxim—*Cito, tuto, et jucunde.*

There remains to be considered the last of the characteristics which I have attributed to modern operative Surgery—namely, its success.

It is in one sense a matter of indifference to what part of operative Surgery I turn for illustrations of its success; they abound everywhere. They might be found in the subjects we have already treated; or I might take to choosing at random some special department, say the orthopædic, and adduce the wondrous metamorphoses produced by its agency in proof of my position—the variously twisted and useless feet opened out, straightened, and made serviceable; the withered bent limbs made strong and shapely; the hideously distorted trunks conjured into symmetry; transformations worked with a perfection, a facility, and an absence of pain to the patient which seem little short of miraculous when we look at the condition of this branch of our art some forty or fifty years ago. Transformations, too, not now confined to some special metropolitan Hospital, but which may be undertaken by any provincial Surgeon who understands his business. I might describe the mechanical apparatus, so nearly perfect, constructed upon scientific principles, and adapted with such careful design to each particular deformity, and which so greatly assist the Surgeon to overcome difficulties and enable him to complete the transformations, towards which the division of tendons is only the first step. Here, too, I might refer to an aspect of our art most interesting to study—the moral effect produced by raising a misshapen, halting creature to the condition of a straight and well-proportioned man—an aspect which brings mechanical art into a close and remarkable relation with the subtle and mysterious problems of psychology. I prefer, however, as more in consonance with my design, to take examples from fields which have been more generally cultivated, and for a longer period, by the great body of the Profession, and from operations which contain in themselves all the essentials of treatment independent of the assistance of the mechanist. The operation of cutting for the stone, for instance, furnishes an example of this description. There have always been individual operators who have been remarkable for their success in cutting for the stone; thus twenty, twenty-five, thirty, as many as forty persons have been cut in succession by different Surgeons without a death; but such examples would not serve the purpose I have in view, which is to show the success of modern operative Surgery in this operation, not the skill of any individual. Let us take, then, the lithotomy operations performed at any provincial Hospital throughout a series of years and distributed among several different Surgeons—say, for instance, the Newcastle Infirmary. In this institution, between the years 1859 and 1869, both being included, lithotomy has been performed sixty-four times, and of this number two operations only have been followed by fatal results. These sixty-four operations occurred in different proportions in the practice of six different Surgeons, who, during the time stated, have held office at the Infirmary for longer or shorter periods. The ages of the patients varied from 2½ years up to 70, both of these extremes being among the successful cases; 29 were 10 years of age or under 10; 16 were upwards of 40 years old. Of the two fatal cases one was 38 years of age, the other 52. The average time between the operation and the date of dismissal from the Infirmary was twenty-eight days. The operation performed was the ordinary lateral one, which, introduced by Cheselden and modified by Liston, is that, I believe, most usually practised by British Surgeons.

These cases, then, were not of an exceptional character; but in every way examples of the ordinary kind of cases which may be expected to occur in Hospital practice; they were not in an unusual proportion of the most favourable age; they were not all in the hand of one operator, who might be supposed possessed of unusual skill; nor did they come under treatment during one particular short period, when for some special reason it might be thought that a run of favourable cases might have occurred; and they were operated upon in a provincial Hospital, where we do not arrogate the possession of unusual skill or success. We may therefore fairly assume that the results give us at least an approximation to the average success which the operation of lithotomy had attained at the period of their occurrence.

The ordinary rate of mortality after this operation, as calculated from a large number of cases, not confined to recent years, is stated by Coulson and others to be about one in seven. Sir William Fergussen states that out of fifty patients under 15 years of age cut by him in the whole course of his experience, two died: this is above the average of success as given by Coulson for the same age, but it must be considered below the rate of success of the Newcastle Infirmary for the time stated, the operations at this Institution being on persons of all ages.

If, then, I am correct in putting forward these cases as representing an approximation to the average results of modern lithotomy, it must be conceded that they constitute good illustrations of modern operative Surgery.

It has already been stated that the operation performed was the ordinary lateral one, and I am not aware that there was any peculiarity in the way in which it was carried out by any of the operators; with the exception that in some of the operations on children, performed by myself, the stone was removed by the finger alone introduced into the bladder, and without the employment of forceps; nor in the after-treatment employed. The instruments used were of the simplest description—the usual laterally grooved staff, sharp-pointed lithotomy scalpel, and forceps.

The success of the modern operation of lithotomy may be attributed in part to this simplicity of the instrument used; in part to the greater gentleness with which in modern times we employ our tools, particularly the forceps, so that we avoid the pulling and hauling with both hands, the violent movements of instruments from side to side, which in former days were not unfrequently witnessed, and the consequent bruising of the neck of the bladder and other structures, proceedings fraught with dangers which I need not enumerate; and greatly also to the use of chloroform, by which the operation is robbed of more than half its terrors; and thus patients are encouraged to seek relief from their pain at an earlier period than formerly, and whilst the urinary organs are still not seriously affected by disease.

The modern procedures for the relief of strangulated rupture, for the extraction of cataract, and of ovariotomy, will afford us equally notable examples for the success of the operative Surgery of the day.

By the modern operation for hernia, I mean especially the operation without opening the sac, perhaps the most satisfactory and successful proceeding in the whole range of Surgery, aiming at so splendid a result as the rescue of a life from imminent danger. The operation, when the sac is opened, is itself much more successful in the present day than it was some thirty years ago, being usually put in practice after a much shorter period of strangulation, and followed by a more sensible and rational after-treatment; but the operation without opening the sac is, I believe, as absolutely certain of success as any proceeding can be. I can remember when the result of herniotomy was considered so doubtful that every device was had recourse to to avoid it, from the injection of tobacco to placing the patient on his head, or trundling him down the street on a barrel; and I have heard a Physician of great repute condemn the proceeding altogether as dangerous and unnecessary, asserting that the strangulation might always be relieved by repeated doses of calomel.

It is not astonishing that the result was uncertain when we consider the mode of operation not unfrequently adopted in those days. After a long and dangerous period of strangulation, we had an external incision running the whole length of the hernial tumour, followed by a painfully tedious dissection, occupying sometimes the better part of an hour, layer by layer down to the sac; this reached, it was opened to an extent commensurate with the external incision, and its contents assiduously manipulated, probably by more than one pair of hands, to ascertain the condition of the bowel; the stricture

was then divided, the knife being passed in dangerous proximity to the bowel, which occasionally has been wounded even by the best operators; and when the operation was over, the Surgeon was not satisfied until the maimed and bruised bowel had been further tortured by purgatives and coerced into unnatural action.

How different is the modern proceeding! A small cut less than two inches in length is made over the neck of the sac; a little dissection with the handle of the knife or the finger-nail reveals the edge of the ligamentous structure; a few fibres are divided; gentle pressure is made upon the sac, which may not even have been seen; the bowel slips up, and all is over. The whole business not occupying ten minutes, an opiate is given, and the Surgeon has no further anxiety about his patient.

I know it may be said that this method cannot always be adopted; and indeed, in looking over some recently published cases of herniotomy, I must acknowledge to have felt some surprise at the frequency with which the sac has been opened.

It has fallen to my lot, as indeed to that of most operators, to operate in such cases pretty frequently; and for the last fifteen years I have rarely found it necessary to open the sac. Unless, indeed, there is some special reason for doing this, such as the great length of time during which the rupture has been down, the manifest pressure of a large mass of omentum, or indubitable signs of change in the bowel, emphysema, putrid smell, or the like, I invariably attempt the reduction without opening the sac; and, according to my own experience, the test of the propriety of the proceeding is in its practicability, for I have never in my own practice known a fatal result where the sac was not opened.

By the modern operation for the extraction of cataract, I mean the method—by whatever special name we call it, whether scoop-extraction, or Schift's operation, or modified flap extraction; whether the iris is touched before or after the extraction of the lens, immediately before or some time before, which consists essentially in a comparatively small incision through the cornea, the removal of a portion of the iris and extraction of the cataractous lens by gentle manipulation, aided by spoon, curette, vectis, or other similar instrument, diversely employed; for I take it the same principle pervades all these methods, however they may differ in minute details.

I claim for these modern operations, although each may be more particularly applicable in special cases, a greater and more uniform success than belonged to the old flap-operation.

I acknowledge that nothing can be more brilliant and striking in its performance, nor more excellent in its result, than a perfectly successful flap-operation after the old mode. After such a proceeding, when entirely successful, there is a scarcely perceptible cicatrix, a transparent cornea, an unmutilated iris, an undisplaced, round, central, clear, black pupil, and consequently sight as perfect as is possible after the removal of the lens. But then, how frequently does this perfect and complete result ensue? We must confess but rarely. How often, on the contrary, are the hopes of the operator disappointed even when all goes well at the operation? How often do we find that the edges of the wound become separated, that part of the iris protrudes, that the healing is delayed, and that ultimately there is a partially closed or distorted pupil, with broad cicatrix and more or less imperfect sight?

In the modern operation, although the pupil is necessarily somewhat misshapen, we can yet reckon with considerable if not absolute certainty upon a result so far successful as to give good useful sight. Although, then, the old operation in exceptional cases gave a result which left nothing to be desired, the new operation gives a more universal and assured success.

I need not detain you by any lengthy reasoning to show the success of "ovariotomy" in recent times. You know that from being looked upon as one of the most fatal performances a Surgeon could undertake; from being stigmatised by some of the greatest men as a frightful butchery, it has risen to take its place as a well-recognised proceeding—more successful than some older and long established operations. It is, indeed, emphatically one of the most brilliant examples of the success of modern operative Surgery.

These three operations do not, at first, appear to bear any close resemblance to each other, being undertaken for very different purposes, and one taking place in a little world as it were apart from the rest of the body; yet a brief examination will show that they possess some features in common; and although each may depend for its success upon some particular proceeding more or less special to itself, will enable us to discern certain principles common to all three greatly influencing their favourable termination. Thus in all three operations, a serous cavity containing important structures is more or less involved, and each may fail by reason of inflammatory action destroying or impairing the functions of these structures; or as in ovariotomy and hernia, by reason of other more serious consequences, to which procedures affecting such regions are more particularly liable.

The operation, without opening the sac, manifestly owes its success mainly to the fact that the peritoneum is not opened, and to the consequent exclusion of air, blood, or other contaminating fluids from the abdominal cavity; but the small size of the external incision as compared with the importance of the structures actually divided, and the still greater importance of those indirectly affected, is also not without an important influence, as well as the trifling amount of bleeding and consequent absence of blood within the external wound.

The modern modes of extracting cataract are less frequently followed by unfavourable results, mainly because the removal of the iris prevents prolapse of that structure between the lips of the wound and consequent delay in healing, morbid changes in the cornea, and contraction of the pupil; but the limited size of the corneal wound prevents loss of vitreous humour, excludes air from the anterior chamber, assists generally in preserving the integrity of the eye, and admits of more rapid healing; whilst the entrance of blood into the chamber is always an accident to be deplored, and sometimes injuriously affects the result of the operation. And in ovariotomy, although special circumstances affecting either the tumour or the patient exercise undoubtedly great influence over the result, nevertheless I conceive that this remarkable operation, which does not really require great operative skill or extraordinary manual dexterity, and which not unfrequently succeeds under apparently unfavourable conditions, as when adhesions exist, or when the patient is reduced to a condition of extreme weakness, is most likely to have a favourable termination where the wound in the abdominal parietes is small, four inches or under in length; when the time occupied is comparatively short; where the abdominal cavity and its contents have been little exposed to the air; and where, in particular, neither blood nor other fluids have entered in any quantity, or remain in the abdominal cavity. Ligatures, whose material seems almost a matter of indifference—wire, catgut, or hemp—may remain with impunity, but not blood, at least in any quantity.

Here, then, are certain common principles greatly affecting the success of each of these different proceedings. 1. The limitation of the external wound, as compared either with the magnitude of the part to be removed, or the importance of the deeper structures involved, or the greatness of the result to be obtained, or, in other words, the approximation of the operation to a subcutaneous wound. Herniotomy without opening the sac, and the new operation for cataract, may be really regarded as equivalent to subcutaneous operations; whilst the small opening in the abdominal wall, through which the enormous mass of disease is drawn, really gives to ovariotomy a certain approximation to that form of proceeding. 2. The exclusion of air from the wound itself, or from the serous cavities involved. 3. And last, but not least important, the exclusion of blood from the wound itself, or from the cavities involved. Although these principles may be considered specially important in such cases as these, where a serous cavity is implicated, we have constant opportunities of observing their importance in operations generally. Indeed, it is but natural to infer that the principles which, carefully carried out, lead to the success of such an operation as ovariotomy, should also powerfully affect the success of proceedings upon less important structures.

In the excision of joints as now performed, as well as in the extirpation of growths from the bones of the face, we have examples of the limitation of external incisions. This principle, quite distinct from conservatism, not only favours rapid healing and diminishes deformity, but, also, by covering in raw surfaces more effectually and permanently, diminishes the risk of entrance of air into wounds.

Amputation by anterior flap, though not an example of the limitation of incision, shows the good effect of the complete covering in of raw surfaces. There is a cast here of another stump left after amputation of the knee-joint, where a posterior flap was formed. The flap was amply sufficient to cover the bone at the time; but, primary union not taking place, the flap gradually slid down, leaving a raw surface uncovered. Healing was long delayed, and the patient necessarily exposed to many risks which I need not enumerate.

The importance of the exclusion of blood from wounds left by operation can hardly be overrated. Every amputation of a limb, or removal of a tumour or diseased breast, affords an example of the impossibility of effecting rapid union where blood or bloody serum is allowed to collect between flaps or in

the cavity of a wound; and the danger of septicæmia from such a cause in the early days of an operation will be recognised by every one. The application of torsion to bleeding arteries will greatly assist us in carrying out this principle; and the exclusion of air has been considered a matter of such importance, that a variety of means have been employed to effect it, which I can only allude to here, such as the water-bath used in Berlin and the *appareil pneumatique* at the Hôtel-Dieu. But, without employing any such special apparatus, by the management of our preliminary incisions, and by methods of dressing, with or without antiseptics, much may be done to effect this important end.

In the foregoing observations I have endeavoured to demonstrate the increased success which attends modern operations, and at the same time to trace out some of the principles which tend to that success, such as the management of primary incision so as to limit the external wound, approximate it to a subcutaneous wound, and facilitate the covering in of raw surfaces; the concurrent principle of exclusion of air, with or without the assistance of antiseptics; the exclusion of blood, with the consequent increased immunity from blood-poisoning; and the use of chloroform, which brings our patient to the operating-table so much earlier, and before secondary diseases have arisen, lessens shock, and facilitates all our proceedings. In addition to these, there is another of totally different character, which must not be overlooked; this is the greater diffusion in the present day of operative skill throughout the Surgical Profession.

It is greatly to the improved education, which places at the disposal of the student the means of learning the use of his hands, that this increased amount of operative skill is owing. The time is not so long past, but that some here may remember it, when the student in Surgery might be said to have been taught everything but Surgery: how to write in Latin; how to make chemical experiments; minute and transcendental anatomy; intricate questions in physiology, and many other things. But the one thing which more than any other he would be called upon in actual practice to do—namely, to use his hands, he was not taught. He attended lectures, indeed, upon the principles of Surgery, and, if his inclination lay towards practical Surgery, he might gather some knowledge of it in passing through the wards of Hospitals, and in the operating theatre; but he was not put through any systematic course of teaching, by which he might learn how to use a knife, how to put on a splint, or even a bandage; and he might pass, as many a student absolutely did pass, into the ranks of the Profession a highly educated man, full of Professional learning, and yet totally unversed in the practical proceedings to be adopted in the simplest cases to which he might be called.

How completely all this is changed in the present day I need not tell you; you know that in every Medical school and Hospital by means of systematic courses of lectures; by means of clinical teaching; and by means of dresserships and other appointments, every opportunity is afforded to the student of educating his hands, his touch, his muscular sense, and of familiarising himself with proceedings in which manipulation is required. So that, although it may be in some degree true of the Surgeon, as of the poet, that *nascitur non fit*, nevertheless, men do now enter upon their active Professional life infinitely better prepared, and more likely to make good and successful operators, than they did in former times.

The interchange of knowledge, by means of the periodicals of the day, the rapidity with which a new and improved proceeding, or a brilliant operation becomes known throughout the Profession, tends also to the general level of our success; and, moreover, I will venture to say that an association like this, which gives to us obscure provincials the opportunity of seeing and hearing the brighter luminaries of our time, and brings vividly to our minds every advance which from year to year may be made in our art, exerts a more potent influence upon the origination and spread of improvements and in the upraising of the general standard of Professional power than has yet been recognised.

I have now, sir, completed the task which I proposed to myself at the commencement of this address, and I trust that in placing before you these illustrations of some of the most striking characteristics of modern operative Surgery, I have also made it apparent that our special branch of Surgical art is not stationary, but progressive; and that we may fairly challenge comparison with other arts and sciences, both as to the amount and rapidity of our progress.

As the world grows older, and the results gathered by past workers and thinkers accumulate, each succeeding generation stands on more advanced ground than its predecessors; facts already ascertained furnish a basis whereon to build new and truer theories, more efficient instruments are at command to investigate and to construct; thus the arts and sciences which increase our knowledge teach us the properties and conditions of matter, tell us of the true place and value of this little world in the crowded universe, or forge us weapons to fulfil our destiny and subdue the earth, press onwards with more and more rapid strides. Philosophy strikes out new laws and blends together forces formerly thought distinct; gigantic telescopes sweeps the sky, dissipate nebulæ into their separate stars, pierce the dazzling atmosphere of the sun himself to find out how he shines, or penetrate far into the depths of eternal and illimitable space to seek the light of some far star; the centre which suspends our system, round which it swings in ceaseless march. Railways scale steep mountain sides, electric cables realise the words of Ariel, rivers are under-tunnelled, and seas are joined to seas.

Our fellow-workers, the physiologist, the chemist, and the Physician, are not idle; the innermost recesses of living things are made to give up their secrets; the mysteries of life in health and in disease are wrested from the minute molecules of structure; new drugs rise from the alembic; strange plants yield up their juices and their fruits to soothe our pains or cure maladies hitherto incurable; and, with greater knowledge and more effective means, the Physician advances to the combat of disease with bolder and more certain steps, with greater assurance of victory.

What have we, the votaries of the knife, to show beside these marvels? If we cannot answer this question, this address has been written in vain. Gibbon asserts that the meanest insect which crawls along the dome of St. Peter's is more worthy of regard, more wonderful than that magnificent structure; and human life is surely more precious than the appliances which are subservient to it; but life itself may be far below its value, or a mere burden, when cumbered by painful disease or by deformity. We have seen with what audacity the modern Surgeon encounters the most formidable enemies of life, what slight traces of his work he leaves behind, how limbs are preserved and yet the diseased part taken away; with what facility the cripple is rendered active, the hump-back made straight, deformities conjured into symmetry; with what safety the thickened lens is taken away from the eye, the torturing stone extracted from the bladder. We know with how much confidence he can say to yon poor wretch writhing in inextinguishable sickness, Suffer me to put you to sleep for a brief space; I will undo in a few minutes the cause of your complaint, and you shall be a sound man in not much longer time than would see you in your grave without such assistance. That haggard creature, too, whose form is rendered misshapen, and whose life is being exhausted by a monstrous growth, whilst she is unconscious, he will take away the incumbrance that oppresses her, raise her in a few weeks from her bed of suffering, and restore her to the world a fresh and blooming woman.

These are but samples of his triumph. Time and space forbid me to enter further into their catalogue.

But we must not boast too much, we must confess that there are still foes whom we cannot yet overcome; still wide domains where the great enemy death remains victorious, but which it is for us and our successors to rescue from his scythe and bring under the dominion of the knife.

Nevertheless, what I have been able to relate of the achievements already accomplished, will suffice to show that Operative Surgery has not stood still whilst other arts have advanced, and that if we do not occupy the foremost place, we are at least well to the front in that glorious race which they win who do the most to diminish human suffering, and to prolong life; to elevate and improve the condition of man.

It remains for me to thank you for the patience with which you have listened to this long discourse, and to express my regret that it is not more worthy of the audience.

BEQUESTS TO HOSPITALS.—Under the will of the late Lord Henry Seymour, each of the London Hospitals has received £482, and there are funds in hand that will produce £100 more to each.

CASE OF MULTIPLE CALCULI.—M. Bron related to the Lyons Medical Society an account of a case which came under his care in which 723 calculi were removed from the bladder by the *lithotriteur à cuiller* with temporary relief. Two or three remaining in the bladder, however, formed the nucleus of a single stone which was successfully removed by lithotrity, the patient being 82 years of age.—*Lyons Méd.*, July 31.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

August 9.

The rapid spread of relapsing fever has rendered necessary the provision of still further accommodation than that afforded by the cholera sheds in Ashfield-street, to which I alluded last week. Of the seventy beds there, sixty-six were occupied by fever patients on Saturday evening last. After considerable discussion over a variety of plans to meet the present emergency, the parish authorities decided on appropriating to temporary Hospital uses the infant department of their industrial schools, situated at Kirkdale, one of the out-townships of this borough. The building was opened for the reception of patients yesterday, Monday, August 8, and was on the same day very favourably reported on by Mr. Cane, one of the Poor-law Inspectors, who visited it. Indeed, few structures could be better adapted for the use to which it is now put. The building occupies an elevated site, within view of the sea, is very large, with spacious, well-ventilated, and well-lighted rooms, which make admirable wards, and is within an easy distance of the particular part of the town where the fever most abounds. There is a clear space of sixty yards between it and the nearest of the other two schools, with neither of which is the slightest communication permitted, and in one or other of which accommodation was found for its previous little inmates. Dr. Kirkpatrick, with a staff of nurses and attendants, has been placed in Medical charge. On the first day thirty-five patients were admitted, of whom thirty-four present all the symptoms of relapsing fever. One, who had been suffering from typhus, died shortly after admission, not so much from the fever, it is thought, as from accidental injuries done to herself at her own home on the previous day during delirium.

On Saturday, August 6, the total number of fever patients under treatment within the parochial institutions was 430, as against 328 on the previous Saturday. The returns were as follows:—Workhouse Infirmary: Typhus, 34; simple continued fever, 59; relapsing fever, 271. Ashfield-street: Typhus, 1; relapsing, 65. There has been no fatal case of relapsing fever in any of the institutions as yet.

GENERAL CORRESPONDENCE.

MEDICAL VOLUNTEERS IN GERMANY.

Letter from Dr. Hermann Weber.

[To the Editor of the Medical Times and Gazette.]

Sir,—As I have frequently been asked about the possibility of joining the German Army Medical Service for the time of the war, it may be of interest to your readers to learn that the North German Government is ready to admit British Medical men as volunteers at their army Hospitals, provided that they speak German, that they have licence to practise Medicine and Surgery in the United Kingdom, that they place themselves unconditionally at the disposal of the North German Government, and that they have the permission of the English Government to serve as Medical volunteers in Germany, and that of the North German Embassy or Consulate General.

The English Medical volunteers will at first, at all events, not be employed on the field of action, but only in the lazarettos in the rear of the armies; this, however, would probably not prevent their seeing and doing important Surgical work.

The services of English Medical volunteers will be regarded as probationary during at least a fortnight, and they will receive no payment during that period, and no reimbursement for the expense of their journey, but if their services prove satisfactory they will probably be engaged and receive payment at the rate of from 6s. to 9s. per day.

I am, &c. Hermann Weber.

10, Grosvenor-street, August 9.

TREATMENT AND TRANSPORT OF THE SICK AND AND WOUNDED.

Letter from Deputy Inspector-General Gordon.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is, I think, very desirable at the present time to obtain all practicable information in regard to the measures in force in the armies of civilised nations for the treatment and transport of their sick and wounded, whether by the Medical departments of those armies or by means of philanthropic associations. I am already in possession of information of this nature in regard to several, and am very desirous to obtain similar information with reference to all. May I, therefore, be permitted to solicit the favour of any of your readers who are in a position to do so communicating to me particulars of the army Medical administration in Russia, Spain, Portugal, Belgium, Naples, Sardinia, Turkey, Brazil, Mexico, etc.?

I shall be glad to pay any necessary expense for postage, etc., and will carefully return any manuscript with a perusal of which I may be favoured. I am, &c.

C. A. Gordon, Deputy Inspector-General
Portsmouth, August 8. of Hospitals.

UNPAID SERVICES TO SICK AND WOUNDED.

[To the Editor of the Medical Times and Gazette.]

Sir,—I perceive by the newspapers that the Committee of the Association for giving Relief to the Sick and Wounded in the present war, have determined to send out six Surgeons, "whose expences will be paid though their services in other respects will be gratuitous." In other words, a committee, representing the charitable portion of the wealthiest community in the world, propose to exercise their charitable feelings at the expense of the six young men in question, whose risk and toil will go unrewarded. If the contributors to the Association believe that it is their duty to give aid to the sick and wounded, it is also their duty to pay for it. This would be the rule with every other Profession except that of Medicine.

I am, &c. G. A. S.

MEDICAL NEWS.

University of London.—The following is a list of the candidates who have passed the recent first M.B. examination:—

First M.B. Examination.—(Entire.)

PASS EXAMINATION.

First Division.

Barfoot, George Harry, University College.
Benham, Henry James, University College.
Birt, George, Sydenham College, Birmingham.
Coupland, Sidney, University College.
Greenfield, William Smith, University College.
Nankivell, Charles Atkinson, University College.
Ottley, Walter, University College.
Russell, Ebenezer Geer, Guy's Hospital.

Second Division.

Barlow, Thomas, B.Sc., University and Owens Colleges.
Bindley, Philip Henry, University College.
Bird, Cuthbert Hilton Golding, B.A., Guy's Hospital.
Bomford, Gerald, King's College.
Breeze, Richard Goodwin, University College.
Cane, Leonard, University College.
Cockburn, John Alexander, King's College.
Cornelius, Walter Bernard, University College.
Dalton, Benjamin Neale, Guy's Hospital.
Deakin, Charles Washington Shirley, University College.
Duncan, Andrew, King's College.
Eastes, Thomas, Guy's Hospital.
Godlee, Rickman John, B.A., University College.
McCann, Thomas Anthony Aloysius, University College.
Percival, George Henry, Guy's Hospital.
Philpot, Joseph Henry, King's College.
Railton, Thomas Carleton, Owens College and St. Bartholomew's Hospital.
Ramsay, Ebenezer John, University College.
Rose, William, King's College.
Saunders, Arthur Rich, University College.
Saunders, Henry William, St. Thomas's Hospital.
Taylor, Herbert, St Bartholomew's Hospital.

EXCLUDING PHYSIOLOGY.

Second Division.

Davies, David Arthur, University College.
Williams, William, Guy's Hospital.

PHYSIOLOGY ONLY.

Second Division.

Darby, John Thomas, University College.
Eardley-Wilmot, Robert, King's College.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 4, 1870:—

Burgess, William Frederick Richardson, Bethnal-green-road.
Tompsett, James, St. Leonards-on-Sea.
Walker, Samuel, York.

As an Assistant in Compounding and Dispensing Medicines:

Slater, Jonathan, Barnsbury-road, N.

The following gentlemen also on the same day passed their First Professional Examination:—

James, Arthur Culver, Guy's Hospital.
Odell, William, St. Bartholomew's Hospital.
Rendall, William, Guy's Hospital.
Watson, William George, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barnish, W. C., M.R.C.S., L.S.A.—Officer of Health for the borough of Wigan.

H. Alder Smith, M.R.C.S., L.S.A., House-Physician, late House-Surgeon, to St. Bartholomew's Hospital, Senior Scholar at St. Bartholomew's Hospital, Gold Medallist at the London University, Gold Medallist at the Apothecaries' Hall, etc.—Resident Surgeon to Christ's Hospital, in room of Thomas Stone, Esq., resigned.

Yarrow, G. E., M.D., M.R.C.S., L.S.A., etc.—Medical Officer to City-road and Bath-street Workhouses, *vice* H. C. Harris, deceased.

MILITARY APPOINTMENTS.

Medical Department.—Staff Surgeon Daniel John Doherty, having completed 20 years' full-pay service, to be Staff Surgeon-Major, under the provisions of the Royal Warrant of April 1, 1867; Surgeon Thomas Knox Birnie, from 17th Foot, to be Staff Surgeon, *vice* J. C. H. Wright, M.D., who exchanges; Surgeon William Mackenzie Skues, M.D., from 109th Foot, to be Staff Surgeon, *vice* Staff Surgeon-Major Robert Thornton, appointed to 109th Foot; Assistant-Surgeon Philip Patterson Lyons, M.D., from Rifle Brigade, to be Staff Assistant-Surgeon, *vice* James Macartney, M.D., appointed to the Rifle Brigade; Assistant-Surgeon James Daniel Crowe, from 21st Foot, to be Staff Assistant-Surgeon, *vice* John Roche Rahilly, appointed to 21st Foot.

17th Foot.—Staff Surgeon Joseph Coleman Hornsby Wright, M.D., to be Surgeon, *vice* Thomas Knox Birnie, who exchanges.

33rd Foot.—Staff Assistant-Surgeon Franklin Gillespie, M.D., to be Assistant-Surgeon, *vice* John Joseph Ball, M.D., deceased.

109th Foot.—Staff-Surgeon Major Robert Thornton, to be Surgeon, *vice* Surgeon William Mackenzie Skues, M.D., appointed to the Staff.

Rifle Brigade.—Staff Assistant-Surgeon James Macartney, M.D., to be Assistant-Surgeon, *vice* Philip Patterson Lyons, M.B., appointed to the Staff.

BIRTHS.

Bogg.—On August 2, at 47, Finborough-road, S.W., the wife of Dr. Beverley Bogg, R.N., of a daughter, stillborn.

Dawson.—On August 5, at Hunmanby, Yorkshire, the wife of C. W. Dawson, Esq., Surgeon, of a son.

Gooding.—On August 9, at Heath Lodge, Blackheath, the wife of Ralph Gooding, B.A., M.D. Lond., of a daughter.

Grace.—On August 2, at Prospect-house, Thornbury, Gloucestershire, the wife of Dr. E. M. Grace, Surgeon, of a daughter.

Littlejohn.—On August 2, at 24, Royal-circus, Edinburgh, the wife of Dr. Littlejohn, of a son.

Longmore.—On August 8, at Woolstone, near Netley, the wife of Deputy Inspector-General T. Longmore, C.B., Army Medical Staff, of a son.

MARRIAGES.

Addenbrooke—Browning.—On August 4, at St. Mary's, Kingswinford, Edward Homfray Addenbrooke, M.R.C.S., eldest son of Edward Addenbrooke, B.A., Vicar of the Old Church, Smethwick, to Marianne, elder daughter of Henry Downing, M.A., Vicar of St. Mary's, Kingswinford.

Irvine—Edie.—On July 19, at St. Silas's, Liverpool, by the Rev. Edward Leslie, B.A., John William Irvine, M.D., to Mary, widow of the late Dr. Edie.

Jones—Broughton.—On August 3, at St. Mary's, Brecon, by the Rev. F. B. Watkins, M.A., assisted by the Rev. Herbert Williams, M.A., Vicar, John Talfourd Jones, M.B., and Scholar London University, to Mary Grundy, eldest daughter of Frederick Broughton, Esq.

Latham—Roberts.—On August 9, at the Cathedral, Chester, Commander W. M. Latham, R.N., son of P. M. Latham, Esq., M.D., to Mary Stokes Roberts, youngest daughter of E. Stokes Roberts, Esq., 10, Abbey-square, Chester.

Parish—Davies.—On August 3, at Edghaston Church, John Benniworth Parish, jun., of Toynton House, Lincolnshire, to Martha Maria Anne Agnes, third daughter of John Birt Davies, M.D., The Laurels, Edgbaston.

DEATHS.

Banks, John T., M.D. Edinburgh, at the Minster-yard, Lincoln, suddenly of heart-disease, on August 2, aged 63.

Bowles, William Wallace, M.R.C.S., at the residence of his brother, West-terrace, Folkestone, of disease of the heart, on August 2, aged 22.

Brown, John, M.D., late H.E.I.C.S., at Milntown, Langholm, Dumfriesshire, on August 7.

Dermer, William, Esq., M.D., of 2, Pembridge-crescent, Bayswater, and formerly of Tasmania, on August 5, at St. Leonard's-on-Sea, aged 67.

Earle, Henry William Peacy, infant son of E. S. Earle, F.R.C.S., at Brentford, on August 5, aged 14 days.

Gorringe, John, M.D., Staff-Surgeon Major, at Cambridge, on August 4, aged 45.

Ludlow, Mrs. Mary, widow of the late Samuel Ludlow, Esq., of the Bengal Medical Establishment, at Cheltenham, on July 26, aged 93.

Monnet, Helen, the wife of Chevalier Napoleon, Monnet, M.D., youngest daughter of the late John Walker, Esq., of Argyle-street, Regent-street.

Robinson, Sarah, widow of the late John Marshall Robinson, at her residence, West Bank, Chorley-road, Bolton, Lancashire, on August 4, aged 65.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Birmingham Workhouse.—Resident Medical Officer. Candidates must possess the double qualification required by the Poor-law Board, and be duly registered. Applications and testimonials to be addressed to the "Guardians of the Poor of Birmingham," Paradise-street, Birmingham, on or before August 18.

Brighton and Hove Dispensary.—Resident Medical Officer and Dispenser; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Committee of Management on or before September 5.

Bristol General Hospital.—Assistant House-Surgeon. Applications and testimonials to C. J. Thompson, Esq., Bristol, on or before August 23. Election on August 31.

Carmarthen Union.—Medical Officer for the Mydrim District. Candidates must be properly qualified and registered. Applications and testimonials to Mr. Edgar Evans, Clerk, on or before August 13.

Clayton Hospital, Wakefield, General Dispensary.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Binks, on or before the 29th inst.

Dudley Dispensary.—Resident Medical Officer; must be duly qualified. Applications and testimonials to Mr. T. Sheppard, Dudley, on or before August 23. Election on September 7.

Geaman Hospital, Dalston.—Resident Medical Officer; must be properly qualified, and be conversant with the German language. Applications and testimonials to the Honorary Secretary, on or before August 17.

Jersey General Dispensary.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

Kensington Dispensary.—Junior Resident Medical Officer. Candidates must be under 35 years of age, and duly registered. Testimonials to be sent to the Dispensary before August 13, where full particulars may be obtained.

Parish of Unst, Shetland.—Medical Officer. Applications and testimonials to Thomas Edmondston, Esq., Unst, from whom further particulars may be obtained.

Queen's College, Birmingham.—Medical Tutor and Demonstrator of Anatomy. Applications, August 27.

Royal Free Hospital.—Junior House-Surgeon; must be M.R.C.S. Applications and testimonials to the Secretary at the Hospital on or before August 17.

Royal United Hospital, Bath.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before August 13.

St. Thomas's Hospital.—Assistant-Physician; must be F. or M.R.C.P.L. Applications and testimonials to the Treasurer on or before August 16. Election on September 8.

Stafford County Lunatic Asylum.—Assistant Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Superintendent at the Asylum.

Stronsay, Orkney.—Parochial Medical Officer and Public Vaccinator. Applications, August 24.

Tiverton Infirmary and Dispensary.—Resident House-Surgeon and Dispenser. Applications and testimonials to Mr. H. S. Gill, Honorary Secretary, Tiverton.

Whitechapel Union.—District Medical Officer for the Aldgate District. Candidates must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. W. Vallance, at the Union Offices, Charles-street, on or before August 16.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Barnstaple Union.—Mr. Wm. H. Ackland has resigned the Fifth District; area 4872; population 1214; salary £13 per annum.

Droxford Union.—Mr. James Thompson has resigned the Workhouse, salary £45 per annum, and the Droxford District; area 13,151; population 3330; salary £55 per annum.

Stoke-upon-Trent Parish.—Mr. W. H. Folker has resigned the Hanley District; area 483; population 14,671; salary £85 per annum.

APPOINTMENTS.

Ampthill Union.—Henry Gramshaw, M.R.C.S. Eng., L.S.A., to the Maulden District.

Halstead Union.—Harvey E. Astles, L.R.C.P. Edin., L.F.P.& S., to the First Division of the First District and the Workhouse.

Maldon Union.—Robt. G. Coomlee, jun., M.R.C.S.E., L.S.A., L.R.C.P.E., L.M., to the Bradwell District.

North Bierley Union.—Peter M. Bell, M.D. and M.C. Glasg., to the Third District; Wm. J. Rutherford, L.F.P.& S. Glasg., L.S.A. Lond., to the Seventh District.

Torrington Union.—Arthur W. Owen, M.R.C.S. Eng., L.S.A., to the Shebbear District.

Society for the Relief of Widows and Orphans of Medical Men.—A quarterly Court of the directors of the above Society was held July 13. The President, Dr. Burrows, took the chair. Fresh applications for relief were received from two widows and four children, and grants were made to them in accordance with the necessities of the applicants. There are now fifty-eight widows and fifty-six children receiving assistance from the Society. The sum of the grants for the half-year amounted to £1406, being an increase of £26 on the amount voted last half year.

The rate of mortality in Liverpool is again frightfully high, the deaths (399) last week, ending Saturday August 6, being in excess of the births (380). The annual death-rate per 1000, which until recently was below 30, last week reached 40. This excessive mortality is almost wholly attributable to diarrhœa, which caused no fewer than 127 of the deaths included in the last return.

Dr. Cormack, D.M.P.—Our well-known Professional *confrère*, Dr. J. R. Cormack, who has been practising in Paris during the last two years, having previously passed his examination, has been formally admitted a "Docteur en Médecine de la Faculté de Paris," and decorated with gown and bands. He defended a thesis, "De l'entrée de l'air par les orifices béants des veines utérines, considérée comme cause de danger et de mort subite peu de temps après la deliverance." The examiners were MM. Pajot, Béhier, Petu, and Palaillon.

The late Chairman of the Metropolitan Board of Works.—We regret to announce the death of Sir John Thwaites, the Chairman of the Metropolitan Board of Works, which occurred on Monday morning, the 8th inst., at about 3 o'clock, at his residence, Meaburn-house, Upper Richmond-road, Putney, after an illness of a few days' duration. Sir John Thwaites was in his 56th year, and had been chairman of the Metropolitan Board since its formation in 1856, previously to which time he was one of the Metropolitan Commissioners of Sewers. Sir John died of choleraic diarrhœa. He was a self-made man, having started in life as a woollen-draper. He was a Deputy Lieutenant of Middlesex and a magistrate of the Counties of Surrey and Middlesex.

The Decapitation by Hanging.—On the 3rd inst., by order of the Lord Lieutenant of Ireland, an investigation was held in Richmond Bridewell, Dublin, by the Inspectors General of Prisons, into the causes which led to the decapitation of Andrew Carr, referred to in our impression of this day week. Several members of the Board of Superintendence, the Sub-Sheriff, the Governor of Kilmainham Gaol, and other public officials were present during the inquiry, but reporters were excluded. The result is to be sent to the Lord Lieutenant.

Dr. Ballard, in his report on the sanitary condition of St. Mary, Islington, for June, 1870, says that "it has been arranged that once in the week certain of the low streets shall be watered with a weak solution of carbolic acid, and that Macdougal's powder shall be used in courts and other places where the water-carts cannot reach, and upon common dust-bins and accumulations of decomposing matter in our courts and near the residences of the poor. If those of our parishioners who can help themselves would this summer adopt a similar practice in their own premises, would see to the cleansing of their water cisterns, insist upon the frequent emptying of their dust-bins by the contractor, and require their servants to burn their vegetable refuse, instead of throwing it into the dust-bin to decompose, they would be doing that which is calculated to preserve themselves and their families from disease."

British Association for the Advancement of Science.—The fortieth annual meeting of this Association will be held in Liverpool, commencing on Wednesday, September 14, 1870. The President elect is Professor Huxley, LL.D., F.R.S., etc. The Sections are—A. Mathematics and Physics. B. Chemical Science. C. Geology. D. Biology. E. Geography and Ethnology. F. Economic Science and Statistics. G. Mechanical Science. These will meet each day, from eleven to three o'clock, in St. George's Hall, the Town Hall, Free Public Library, and other places to be duly announced. Full particulars as to tickets, together with detailed programmes of sections, etc., will be published shortly. Meanwhile information can be had from the secretaries, to whom all communications should be addressed. Wm. Banister, B.A., R. Harrison, F.R.C.S., H. H. Higgins, M.A., A. Hume, D.C.L., LL.D., honorary local secretaries.

Conviction under the Lunacy Acts.—At Wells, on Tuesday last, William Adams Davey, who had been a schoolmaster, was convicted for receiving and allowing to remain in his house one Stephen Lowdell, a lunatic, his house not being licensed for this purpose. It was proved in evidence that Lowdell had been a man of intemperate habits, and that he was now suffering from chronic dementia. After several witnesses had been examined, the defendant pleaded guilty, and threw himself on the mercy of the Court. Mr. Baron Martin said he did not see anything to induce him to believe that the defendant was aware of the law; he had certainly acted at the wish of the relatives of Mr. Lowdell, and it did not appear to him to be an exaggerated case; therefore, probably, the justice of the case would be answered if he bound the defendant in his own recognisances to come up for judgment when called upon, but he might depend upon it if he repeated the offence he would be severely dealt with.

Small-pox in Halifax, Nova Scotia.—A correspondent informs us that in the Hospital for small-pox at Rockhead, Halifax, on July 28, there were 44 cases, and on July 29, 31 cases. The disease is supposed to have been introduced into Halifax in January last by a convalescent arriving from Boston, U. S., the daughter of a butcher, in whose family two cases shortly afterwards occurred, the fact being concealed from the neighbours with whom daily intercourse was maintained, and to whom the butcher continued to supply meat, and it was only after the occurrence of other cases in contiguous rooms of the same house that the truth was made known. On March 23, the steamer *City of Brussels*, from Paris, put in to coal, having on board a case of confluent small-pox, contracted in Paris. On April 15, the steamer *Delta*, from Bermuda and St. Thomas, arrived at Halifax with one case, which, from its history, was considered to have been contracted at Halifax; and on June 1, the *Antwerp*, from Liverpool, arrived with another case. The disease became pretty general. Fortunately, it has been of mild type; only one death having occurred; being that of an infant, in which convulsions supervened. As usual in the unvaccinated, the disease was confluent.

Medical Evidence in Cases of Railway Accidents.—In a case tried at York, on Monday last, for compensation for injuries sustained by a miller on the North Eastern Railway, the Medical evidence was as usual most conflicting. Mr. Justice Brett, in summing up, remarked that, if the jury had not experience of these matters they might well be surprised that a railway company should suggest that the whole case was one of simulation on the part of the plaintiff. Unfortunately, experience showed that they were very often right. They would also, but for their experience of similar cases, be surprised at the difference of opinion existing between the Medical men. It could not, however, be supposed that they would state that which was wilfully untrue. The difference might be explained by the fact that those who were called in for the plaintiff were disposed to accept the truth of plaintiff's statements as to the reality of his lameness, etc., and, on the other side, the Surgeons had been called in simply to test the truth of the case. His Lordship then went carefully through the whole of the evidence. The jury found a verdict for the plaintiff, damages, £600.

The Council of the Royal College of Surgeons has determined to remove the name of Edwin Lowe, lately convicted for administering a drug with criminal intent, from its list of members.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The pass-lists of the University of Aberdeen shall appear next week.

R. J. P.—An act of Bankruptcy would dissolve the partnership.

Studens could obtain a copy of the paper by application to Mr. Trimmer, of the Royal College of Surgeons.

J. T.—Under ordinary circumstances the charge should not exceed a guinea.

Senex.—If in practice before 1815, he would be eligible.

Enquirer.—It is better to use the title.

Licentiate in Midwifery.—It is expressive and conveys the information desired.

C. B.—Yes, he was out in the arctic expedition under Sir E. Belcher.

Victoria.—He will not be allowed to practise in the colony unless he be duly registered. It is the same in New Zealand.

A Member.—The greatest number of members of the British Medical Association are in Middlesex, and the largest number of Fellows of the College in the same county.

R. M., Newcastle.—The Collegiate Triennial and Jacksonian prizes. The essays must be sent in before Christmas-day next.

An Actuary, Manchester.—The medium duration of life is in England about 38 years, in Belgium 36, in France 35, in Switzerland 34, in Prussia 29, and in Russia 21 years.

Erinensis, Wicklow.—The regulation which formerly, but only for a short time, permitted graduates in Medicine of your university to escape the anatomical and physiological examinations for the Fellowship of the London College of Surgeons, has been rescinded some time.

Microscopist.—Professor Quekett died at Pangbourne, August 20, 1861, aged 46 years.

Royal College of Surgeons.—The library and museum of this institution will be closed as usual during the ensuing month of September for the necessary cleaning and rearrangements.

Dr. A. B., Rotherhithe.—Apply to the Medical Department of the Privy Council Office for the memorandum "On Disinfection." The sulphate of iron is inferior both to Condy's fluid and carbolic acid.

Dr. Archibald M'S., R.N., Portsmouth.—No award for the "Blane Medal" has been made lately. The adjudication is left with the Presidents of the Royal Colleges of Physicians and Surgeons and the Director-General of the Naval Medical Department. Sir Gilbert Blane was a Scotchman, and it has been stated that most of the recipients were his countrymen. Dr. John Page Burke, F.R.C.S., Staff Surgeon in the Royal Navy, the beau ideal of an Irish gentleman, died lately at Malta.

Craniotomist, Dudley.—The Midwifery Board did not meet on Wednesday, in consequence of the dearth of candidates. The examiners are Mr. George Busk, senior Vice-President of the College, and Drs. Arthur Farre, Barnes, and Priestley. The Secretary will send you the regulations.

"*Arts Examination.*"—We have ascertained that you were not rejected on the algebraic paper alone, but on two other subjects of great importance. Every allowance has been made for the omission of the "P. T. Over" in the questions on that subject. The next examination will take place in December, but if you pass the preliminary at the Hall in September you could commence your Professional studies at St. Bartholomew's in October.

The Medical Amendment Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I cannot say with what interest I read your editorial articles on the "Medical Amendment Act," and hope that, after the strong feeling and indignation expressed by the united Profession on the subject, we may next year be favoured by a measure better adapted to meet the requirements of the faculty than the last abortive attempt at legislation.

27, Adelaide-st., Kingstown, August 4. I am, &c. F. E. Jencken.

COMMUNICATIONS have been received from—

Dr. W. Cooke; Dr. S. Martyn; Dr. Davidson; Mr. T. Spencer Wells; Mr. Chatto; Dr. Eaen. Hughes; Professor Laycock; Mr. David Evans; Dr. W. Strange; Dr. Stewart; Mr. J. S. Brazier; Dr. A. Mackintosh; Mr. C. W. Dawson; Dr. Sheaidan Muspratt; Mr. G. Gale; Dr. Henry Bennet; Dr. Philipson; Dr. Bakewell; Mr. C. Linton; Dr. C. A. Gordon; Dr. Yarrow; Mr. W. C. Barnish; Mr. J. Pollard; Mr. C. J. Thompson; Dr. Cassidy; Dr. Handfield Jones; Dr. J. C. Murray; Mr. J. B. Blackett; Dr. Alder Smith; Dr. E. Blackwell; Dr. Hermann Weber; Mr. W. B. Lewis; Mr. George T. Heath; Mr. William Adams; Mr. H. B. Franklyn; Mr. W. Carter.

BOOKS RECEIVED—

Scotus on the Scottish Poor-laws—Biology *versus* Theology; or, Life on the Basis of Hylozoism considered. By Julian—California Medical Gazette, July—Harvey's Sketch of the Late Epidemic of Small-pox in Bhurtpoor—The Parish Leech: a Medical Metrical Medley. By a "Parish Doctor"—Dr. Chuckerbutty's Introductory Lecture at the Medical College, Calcutta—A Retrospect and Balance-sheet of the Medical Reform Union—Fry's Guide to the London Charities—Swete's Handy Book of Cottage Hospitals—De la Variole et de la Vaccine. By le Dr. E. Chairon—Etudes Cliniques sur l'Hystérie. Par le Dr. E. Chairon—Medical Mirror, August—American Journal of Syphilography and Dermatology, July—Professor Fordyce Barker's Clinical Observations on the Malignant Diseases of the Uterus—City of Glasgow Fever Hospital Report.

NEWSPAPERS RECEIVED—

Scotsman—Nature—Pharmaceutical Journal—Indian Medical Gazette—New York Medical Gazette.

APPOINTMENTS FOR THE WEEK.

August 13. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women 9½ a.m.; Royal London Ophthalmic, 11 a.m.

15. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

16. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m. :West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

19. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 6, 1870.

BIRTHS.

Births of Boys, 1016; Girls, 1066; Total, 2082.
Average of 10 corresponding weeks, 1860-69, 1938·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	863	785	1648
Average of the ten years 1860-69	772·4	742·4	1514·8
Average corrected to increased population	...	...	1667
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	4	33	1	3	...	1	...	68
North ...	618210	6	10	25	...	3	4	12	4	87
Central ...	383321	1	9	10	1	1	1	1	...	23
East	571158	6	7	10	...	4	1	2	...	86
South	773175	2	3	36	2	13	4	8	5	121
Total	2803989	15	33	114	4	24	10	24	9	385

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·658 in.
Mean temperature	65·3
Highest point of thermometer	81·0
Lowest point of thermometer	53·5
Mean dew-point temperature	59·2
General direction of wind	N.E. & S.W.
Whole amount of rain in the week	0·15

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 6, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Aug. 6.	Deaths Registered during the week ending Aug. 6.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2082	1648	81·0	53·5	65·3	18·50	0·15	0·38
Portsmouth ...	122084	12·8	56	70	78·6	53·2	64·5	18·05	0·69	1·75
Norwich	81087	1·09	44	44	81·0	57·0	65·6	18·67	0·03	0·08
Bristol	171382	36·6	115	93	75·9	51·5	63·6	17·56	0·89	2·26
Wolverhampton ...	72990	21·5	42	47	79·7	51·0	65·2	18·44	0·41	1·05
Birmingham ...	369604	47·2	253	191	80·6	51·0	65·2	18·44	0·14	0·35
Leicester	97427	30·4	75	66	83·7	51·0	67·7	19·83	0·00	0·00
Nottingham ...	88888	44·5	52	42	84·2	50·8	66·6	19·22	0·00	0·00
Liverpool	517567	101·3	380	399	82·7	52·4	66·2	19·00	0·68	1·72
Manchester ...	374993	83·6	256	228	...	...	...	...	...	...
Salford	121580	23·5	98	77	83·5	49·9	67·3	19·61	0·00	0·00
Bradford	143197	21·7	119	121	78·8	55·5	66·0	18·89	0·05	0·13
Leeds	259527	12·0	178	207	80·0	52·0	65·5	18·05	0·00	0·00
Sheffield	247378	10·8	166	168	79·2	50·0	66·1	18·94	0·00	0·00
Hull	130869	36·7	76	59	79·0	56·0	61·8	16·56	0·04	0·10
Sunderland ...	94257	30·5	73	50	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	97	71	72·0	52·0	58·7	14·83	0·01	0·03
Edinburgh	178970	40·4	134	75	75·7	52·0	61·9	16·61	0·20	0·51
Glasgow	468189	92·5	348	226	75·1	53·8	62·9	17·17	0·61	1·55
Dublin (City, etc.*)	321540	33·0	157	110	81·9	41·0	62·5	16·94	0·42	1·07
Total of 20 Towns in United Kingd'm	7209603	33·8	4801	3992	84·2	41·0	66·6	18·11	0·24	0·61
Paris—Week ending August 6 ...	1889842	242	...	1126	...	...	...	...	...	...
Vienna—Week ending July 30 ...	605200	167	...	329	...	...	68·2	20·12	...	...
Berlin—Week ending August 4 ...	702437	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·658 in. The highest barometrical reading was 29·79 in. on Saturday, and the lowest was 29·57 in. on Thursday.

The general direction of the wind was N.E. and S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

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ARE THE FINEST OILS,

So prepared as to be really pleasant to the taste, whilst their medicinal properties are not in the least impaired.

From the LANCET, June 18th, 1870.

"Our attention has been called to the preparations named (by Messrs. Fox and Co., of Manchester) Palatable Cod-liver Oil and Palatable Caster Oil. We have made ourselves acquainted with the means employed to render these Oils 'palatable,' in place of being, as they are to so many persons in their natural state, nauseous and disagreeable to the palate, and calculated to derange—especially cod-liver oil—the stomach and the organs of digestion. These means are simple and unobjectionable, and they have the effect of removing certain impediments to the free and general use of these Oils, and, in the case of Cod-liver Oil, of endowing it with mildly tonic properties. The idea of rendering Cod-liver and Castor Oils palatable is an exceedingly good one, and no doubt there will be a large demand for, and consumption of, the Oils thus prepared."

From the MEDICAL TIMES AND GAZETTE, June 4th, 1870.

"In these preparations the Patentees have succeeded in making the Oils not only palatable, but easily retained upon the stomach without rising. We have tried them in several cases with marked benefit, and in some instances in which the Oil in its natural state could not be retained. The mode of preparation is such that the medicinal properties of the Oil are unimpaired. To children in particular the Oils as prepared by Fox and Co. will be highly advantageous."

From the MEDICAL PRESS AND CIRCULAR, May 4th, 1870.

"Hospital Report, North London Consumption Hospital.—Mr. George Fox, a chemist of Manchester, has recently sent some samples of Palatable Cod-liver Oil to be tried at the Hospital, stating that his preparation contains 50 per cent. of the purest Oil. This compound is very palatable indeed, and patients who could not take oil by itself or with the addition of sulphuric ether, took and retained it without any difficulty. Fox's Cod-liver Oil is well suited to patients of the better classes, with whom it will probably become very popular on account of its exceedingly pleasant taste."

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Palatable Cod-liver Oil, 2s., 3s. 9d. with Quinine, 2s. 6d., 4s. 9d. Palatable Caster Oil, 1s.

ORIGINAL LECTURES.

ON THE MILK AND WHEY TREATMENT, AND ON HEALTH RESORTS.

By Dr. HERMANN LEBERT,
Professor of Clinical Medicine in the University of Breslau.

II.

(*Continued from page* 174.)

GENTLEMEN,—From the previous remarks it appears that cows' milk is particularly nutritious, containing of 14 per cent. solid matters, nearly 5½ nitrogenous and over 4 per cent. butter. Goats' milk, containing nearly the same total amount of solids, has a smaller quantity of casein, but more than twice the quantity of albumen; this is its principal difference, and perhaps on this depends its decided value in obstinate intestinal catarrhs. Sheep's milk is by far the richest and best constituted, and in addition has a more agreeable taste than goats' milk; its large amount of albumen also causes it to rank before goats' milk; one-sixth of its total weight consists of solids, and more than one-ninth of its total weight (water included) are casein, albumen, and butter; it cannot be doubted that a milk of this composition recommends itself for courses of milk treatment, and it appears almost incredible that up to the present time the whey only of sheep's milk has been employed for therapeutic purposes. In the future the latter will be limited with benefit to the hygiene of chronic diseases of the chest.

In contrast with the sheep's milk stands asses' milk: rich in water, poor in solid matters, with a relatively small quantity of nutritive constituents, easily digested, a mild aperient, it is, according to my lengthened experience, adapted particularly to chronic lung diseases, accompanied by frequent exacerbation, with inclination to continuous fever, and more especially in tuberculous irritation of the lungs without catarrh of the intestines, when it is much more appropriate than whey; for this reason I have maintained for the last ten years that it should always be employed in the watering places of Silesia.

If we consider the composition of whey, we find that the casein has been totally precipitated, the albumen also (if prepared at a high temperature) and the greater proportion of the butter. On the average there remain in whey only about 7 per cent. of solids; the proteine and hydrocarbons are reduced to a small proportion, about 1 or 2 per cent., in that prepared without a high temperature. As principal constituents of this watery solution remain 4⅓ per cent. of milk sugar, and about ⅔ per cent. of salts; the nutritive value of whey is furthermore the less to be taken into consideration, since it is the aim in the preparation of whey to separate the nutritious matters. Milk sugar is no physic; it differs only from other kinds of sugar in its greater insolubility and its readiness to undergo fermentation with the production of lactic acid. Hence the frequent irritation of the stomach and intestinal mucous membrane occurring during a prolonged therapeutical administration of whey.

Of the salts in the milk, part are likewise separated with the casein. The quantity of chloride of sodium in whey is scarcely worth a mention, and the same thing is true of the lime, magnesia, and traces of iron. There remain, therefore, only potassic chloride and free potash, which do not exceed ¼ or ⅓ per cent.; hence the salts become of no importance, particularly if we remember how very much larger a quantity of potash and its salts exist in any article of food, more especially eggs and meat. Nothing is then left in whey which has any therapeutic quality, and nothing of a nutritious kind which is not to be found better and by far more agreeable in different kinds of food. In accordance with this conclusion, I have also learnt by reports from agricultural schools that, in cattle culture, whey is looked upon as of little value, from its scanty supply of nutritive matter and its much too aqueous composition.

Now, one would be very much astonished by the fact that the health resorts in Germany and Switzerland, in which whey is largely employed, are increasing in number year by year, if one could not find an explanation in their being excellent climatic resorts, situated in protected sub-alpine regions, those in the northern districts between 1000 and 2000 feet above the level of the sea, the more southern spots about 3000, and those in Engadine 5000 and more.

That, in spite of whey, many patients suffering from chronic chest diseases get better or get cured in such places, observing rest, having amusement, and being well nursed, is quite natural, and it was always to me remarkable that whey treatment has never been favourably regarded nor diffused through France, England, and Italy—in a word, through by far the larger part of Europe.

It is sufficient to read what authors have written on the effects of whey. Some maintain that it has laxative and solvent qualities, others avoid its laxative property, and lay their principal claim to its nutritive(?) quality; others, again, ascribe to the whey a kind of intellectual eclecticism—to promote normal cell formation, to cause dissolution of abnormal ones and elimination of the same; this contradiction I leave to those who are able to solve it.

Usually the larger doses of whey of 1000 grms. and more are not well tolerated; their only effect in most cases is to relax the bowels, through the quantity of lactose—about 40 grms.—but even this effect is uncertain, and to spoil the appetite. In cases where we intend to produce solvent effects the mineral waters of Homberg or Marienbad, and when we intend to produce a laxative effect the waters of Püllna and Friedrichshall are by far preferable. For the rest, if in cases of chronic diseases of the chest we were to order a small diet in correspondence with the solvent action of the solution of lactose, we should in very many cases do great harm.

Now let me say a few words on milk courses.

Is there in this mode of treatment anything specific against diseases of the chest? By no means; nay, I consider that exclusive treatment by milk without any other food in chronic diseases of the chest, inveterate catarrh, emphysema, bronchiectasis, and tuberculosis, is positively injurious; but if a certain quantity of good and fresh milk be given to such patients morning and evening, in addition to other nutritious and substantial food, in well-situated, sheltered, and well-conducted sub-Alpine health resorts, then this excellent and easily-digested food will very much assist the general hygienic treatment; particularly if the four different kinds of milk are given as the special cases may require it; cows' milk for ordinary use, goats' milk when proclivity to intestinal catarrh exists, sheep's milk when nutrition is much impaired, and the comparatively dilute asses' milk where, in consequence of existing febrile processes, the other more nutritious kinds are not well tolerated, which processes often occur, more particularly in the course of tuberculosis. It is very advisable to protect such patients from frequent colds by the use of the cold sponge-bath. Such persons ought not to remain in these resorts four or six weeks only, as is usually the case, but they should continue there during the whole summer, and we shall even more and more advise them to remain there during autumn and winter, since we know by experience in Engadine and Davost that many patients suffering from disease of the chest bear the Alpine winter much better than that of the south. Of course the efficacy of these elevated health resorts for phthisis during winter is to be more implicitly propounded, and is to be demonstrated in a more strictly scientific manner than has yet been done.

Were I to be asked by Medical men what, under these circumstances, becomes of the Medical treatment of such patients, my reply is that, in chronic diseases of the chest, an opportunity is very often afforded of interfering by means of medicine in the treatment of symptoms, but that these patients have generally taken already too much medicine during the other part of the year, so that a climatic course of milk treatment during the most pleasant time of the year, with well arranged hygienic measures, and the avoidance of unnecessary medicinal interference, will afford the greatest benefit to the patient. The Medical officer of such a resort must, of course, be acquainted not only with the somatic suffering but likewise with the whole psychological life of the patients suffering from chest diseases.

In conclusion, I again refer to a point which has often been the subject of discussion in our clinical meetings. You have frequently heard me express deep regret that a prolonged stay in the Hospital, even with the most careful nursing, is more injurious than beneficial to tuberculous patients. Nay, that even the life of many is directly shortened by breathing Hospital air. It is to my mind not for a moment doubtful that health resorts in the country would be of far greater benefit to such patients. It is high time that the country, the nation, and parishes became aware that they have a duty to discharge towards the numerous victims perishing by this disease, duties not hitherto recognised.

A principal idea for the future, according to my conviction, must be to provide health resorts for patients suffering from chest diseases in the country near large cities, in well-situated, sheltered, and well-drained spots, in which pleasant walks may be taken in sunny as well as shaded forest paths. All archi-

tectural luxury may be dispensed with; hygienic propriety must constitute the main feature. The colonies for mental diseases already existing, the colonies of labouring men more and more guarded by industry and constantly improving in their arrangements, these may be taken, not as patterns, but as points from which to start.

Above all else, large saloons, and the aggregation of large numbers of patients in them must be avoided. It is advisable to have no more than two to four patients in each spacious room, in which every individual ought to have at least double the amount of air which is allotted to them in the usual Hospital wards. Good ventilation must be one of the principal points, and the temperature must be regulated in each room by the thermometer, being during winter not above 15° R. (65·75 Fahr.), and never below 12 R. (59 Fahr.) The attendants of the patients must carefully preserve the utmost cleanliness in the bedding, linen, and closets.

Such residences for patients with chest diseases would most conveniently consist of groups of small houses, and they must not be more than one story high to avoid the ascent of stairs, by which exit into the air would be impeded. The diet should be simple. Milk of good quality must be procured. That of cows and goats will suffice for most cases. If here and there sheep's or asses' milk could be given it would be better, but these would be difficult to get in such institutions. It would be very beneficial if large cow-sheds could be erected with seats around the walls, in order that those patients who need not be in bed may take their milk in the shed morning and evening, and remain there one or more hours. Attention must be paid to the skin; sponge-baths and friction should be used to lessen the chance of getting cold.

I do not make this proposal that it may serve as a pattern: it is my intention merely to show the possibility of execution of the scheme, that it is by no means Utopian, but capable of realisation, provided that every proposition of the kind is not systematically met from its commencement with the stern expression "non possumus," or the milder sounding phrase, "we have no money." The large sums which have been spent in the improvement of certain animal tribes are, I dare say, well spent, but it seems to me a far from Utopian notion that the time has arrived in which some improvement in the human race has become necessary, even though it may be connected with what may be considered monetary sacrifice.

ORIGINAL COMMUNICATIONS.

TWO CASES OF DISEASE OF THE HIP, AND IN ONE CARIES OF THE STERNO-CLAVICULAR JOINT ALSO.

By WM. COOKE, M.D., M.R.C.S.

In a recent number of the *Medical Times and Gazette* Mr. Bryant has published an excellent paper on diseases of the hip-joint. He maintains that the diseases of the hip do not differ from the lesions of other articulations, and that they are too much considered as strumous affections. He states that struma is an affection of child-life, for that out of 360 cases nearly two-thirds occurred in children under 10, and four-fifths in patients under 20. This statement of the great preponderance of cases of struma in early life is, I think, entitled to general confirmation; but it seems not at variance with pathological facts that the disease may develop itself later in life, or modify other morbid actions. The two instances about to be related seem to present that form.

Both patients believed themselves to be subjects of rheumatism. If it were rheumatic it was in a chronic form, and chronic arthritis — synchronous with struma or some other cachectic state—does undoubtedly produce great change in the structure of the cartilages and ligaments, which ordinary inflammation alone will not account for.

Case 1.—Mrs. B. was the wife of a painter and glazier. She was of nervous temperament, and became the mother of a large family, in which she was very active. In the latter period of life she was subjected to much worry, and was not always judicious in her manner of bearing or combating these troubles. She often needed Medical advice under ailments usually of a feeble type.

On November 9, 1864, when nearly 70 years of age, thin and feeble, she consulted me about a tumour on the side of the upper part of the sternum. It was the size of a small apple; had been some years in forming, was movable, on pressure felt elastic, and was very slightly tender. There was no external inflammation. Notwithstanding the slight elasticity, I regarded it as an encysted formation, and, as it was increasing in size as well as occasioning inconvenience in the motion of the arm, I advised its removal. After long hesitation she consented.

Having divided the skin, I proceeded to separate the tumour from what I considered the cyst, and in doing this the body of the tumour was slightly punctured, and there escaped some curdy fluid resembling the contents of strumous abscesses. There was a very close attachment to the sterno-clavicular joint. The joint proved to be carious, especially the end of the clavicle. The wound did not heal kindly. Erysipelatous inflammation surrounded it. Gradually, under treatment chiefly by zinc ointment, it ceased to be troublesome, although it had not quite cicatrised at the time of death.

In 1866 she began to complain of pain and swelling at the upper part of the left thigh and the hip. At first, indeed, the pain was not limited to the left side, but gradually it fixed itself there. From the nature of the pain and its somewhat migratory character, it was at first considered rheumatic. The joint could be freely moved by the hand, and there was not much tenderness; but to bear on the leg occasioned severe pain in the hip-joint. The circulation was feeble, and the appetite very defective; but nutritive food was allowed, with a moderate quantity of stimulants. Rest was enjoined, but, owing to domestic claims, it could not be fully secured. Rubefacient and anodyne liniments, poultices, fomentations, and blisters in succession constituted the local treatment; and as general remedies quinine with or without colchicum, steel, Dover's powder, and other remedies of a sustaining and soothing virtue were prescribed. Occasionally the pain greatly subsided, but the swelling did not decrease, nor did the ability to bear on the limb improve. Under the mitigation of pain the patient usually requested the cessation of the use of local means.

In weakness and depression, with varying degrees of suffering, the year 1867 passed, but in the early part of the ensuing year she complained of pain in the loins, a little above the left hip. On examination I found a diffused swelling, not inflamed or tender, but pitting from œdema. She had been lying for some weeks on the back, with inclination to the healthy side, and it appeared as if the swelling were the result of posture. A month afterwards she complained of pain, and I found in the centre of the diffused œdema a more circumscribed swelling, within which there was fluctuation. For some weeks she would not allow a puncture to be made, but as swelling and pain increased, she consented on June 16. On making a puncture, the fluid spirted out nearly half a yard, but about a pint was collected. It was a mixture in appearance of curds and whey, but at the close of the issue some clear synovia flowed out, and indicated what had been the seat of the accumulation. Care was taken to prevent admission of air. Little pain followed the operation. Sustaining food and medicines were given as freely as possible, but vital power continued to fail from the protracted illness and a continued oozing of fluid from the wound. At the expiration of three or four weeks, retaining her mental faculties, she died.

On examining the seat of tumour in the thorax, the sternal end of the clavicle and the entire joint were totally destroyed by caries. With respect to the hip, the capsular and other ligaments, as well as the cartilages, were in a softened and jelly-like condition, covered indeed to some extent with the deposit of curdy substance already mentioned. The internal organs were all somewhat flaccid, especially the heart. She appeared to have died of exhaustion.

Case 2.—On January 22, 1867, I was requested to see Mrs. L. She was 70 years of age; married, but had never borne children. My attention was directed to a very painful affection of the right leg. She had generally enjoyed good health, except being, as she described it, very rheumatic. She had swelling in the right inguinal region, a little below Poupart's ligament. Pain came on in violent paroxysms, but chiefly occupied the origin and course of the sciatic nerve. There was low fever and constipation. She had a frequent desire to pass motions, but what escaped resembled sheep's droppings. Saline aperients and opiates greatly relieved the pain, and gave some freedom to the action of the bowels. I learnt that many years before, on getting out of an omnibus, she had sprained the hip-joint, and from that event she continued to suffer pain in a less or greater degree. Several years afterwards, on assisting to put together a bedstead, after furniture cleaning, she fell astride part of the woodwork, and again hurt the previously injured

hip and thigh. The pain in these parts she always considered rheumatic, and being of an active disposition, and very incredulous as to the efficacy of remedies in such cases, she neither rested nor sought other proper means of relief. Thus she went on, year after year, until she became quite incapable of movement, owing to the intenseness of the pain it occasioned.

At my visit she complained of almost incessant tenesmus. There was much tumefaction of the abdomen, owing to accumulation of flatus and fæces, and the removal of this was the first indication. This having been accomplished by the expulsion by medicine of a large quantity of black fæces, the patient was much relieved as to the abdomen, but the swelling and pain of the hip and thigh were unabated.

It would be uninteresting and useless to describe all the expedients employed to afford relief. An opiate at night led to much alleviation. Iodide of potassium, with bitters, gave most relief in the day. However, for some weeks before death the patient became so confident of the inefficacy of medicine to effect real and permanent good, that little was taken, except to act on the bowels occasionally, or to obtain relief under excruciating pain. During two or three weeks she, indeed, took no food, except a few spoonfuls of arrowroot or a sip or two of water. She died exhausted.

Sectio Cadaveris.—On cutting into the mass of swelling, the scalpel disclosed a fungoid tumour made up of loose and thin fragments of bone, mixed with small broken up portions of fleshy and cartilaginous matter. In the bottom of the cyst, extending into the acetabulum, there were a few ounces of sanious fluid. The os pubis was much enlarged; a portion sawn off showed that its texture was less dense than usual, soft, and cancellous. The tumour was made up of carious portions of the bone and cartilages of the joint, mingled with a mass of broken fungus.

Low inflammatory action, I presume, ensued on the first accident. It was kept up by neglect of rest and of appropriate appliances. Under extremely feeble circulation, and weak nervous power, disorganisation commenced, and proceeded unarrested until the local lesions described above had taken place. The remarkable power of endurance possessed and exemplified by this very amiable lady, it is probable, deceived the attendants, and prevented due consideration of the mischief, to limb and to life itself, from injury to an articulation, when the undermining effects do not prominently show themselves in acute pain.

39, Trinity-square, E.C.

ON THE TREATMENT OF EPILEPSY.

By WALTER TYRRELL.

Since the publication of my last papers upon this subject, I am pleased to find that the use of strychnia in the treatment of Epilepsy has been taken up with success by many of the Profession, both in this country and in the colonies.

In seeking to cure a disease like Epilepsy we must look further than the mere stoppage of the attacks; we must produce some positive alteration in the nervous condition of our patient; we must detect and strengthen that weak spot in the nervous system that allows of the involuntary discharge of nervous power; for it is evidently thus that epilepsy arises. Irritation alone will not produce Epilepsy. There must exist a predisposition, a hyper-sensitive condition for the nervous system, coupled with a want of power of control; for we see that similar causes of irritation may exist in a number of persons, but in only a very small percentage of these will epilepsy supervene, and in those few a deficient power of control of the nervous system is evidently existing. This is evidenced by the large number of adult epileptics who in early life have suffered from infantile convulsions, a disease identical with epilepsy; the predisposition to this disease has always existed, and the system has readily yielded to exciting causes of irritation.

Although it is my desire to confine myself as far as possible to points connected with the treatment of the disease, yet I feel called upon to notice one or two facts which have recently come under my notice, which strike me as having a strong bearing upon the pathology of this, and, indeed, upon all forms of convulsive disease, more especially with regard to the seat in which convulsions would appear to arise. Believing with Van der Kolk that the medulla oblongata is the centre in which convulsion is organised, it is my habit invariably to examine carefully the upper part of the spinal column in all epileptics who come under my notice, and I have been much struck with the frequency with which pressure in this region will give rise to a species of epileptic aura, arising from or proceeding to some distant part of the body. Thus on making pressure between the occiput and the atlas there is frequently pain or a peculiar nervous tingling felt, sometimes at the pit of the stomach, sometimes down the arms, or it may be in the throat; and in some cases this aura may pass on into a modified or even a complete epileptic seizure. In two cases in my practice this has actually happened. The first of these patients was a young lady, E. R., aged 20. She had been epileptic for nearly five years. She was a strongly built girl, of sanguine temperament. An elder sister, suffering from melancholia, is in a lunatic asylum; the fits first appeared at the commencement of the menstrual period, and were attributed to fright. They came on every ten days or a fortnight, but more frequently occurred at the catamenia epoch. They were very convulsive, but she did not bite her tongue. I very soon discovered the effect of pressure over the upper part of the spinal column, and it was upon the second occasion of my seeing her that an actual convulsion occurred. She described the aura as arising in the throat, coupled with a sense of constriction; this was but momentary. The face became deeply suffused; no cry was given; but convulsions, commencing in the upper extremities, soon became general. After this I frequently observed that similar effects could be produced by pressure in this spot, although I never carried it so far as to produce convulsion. The case (with this exception) presented no other special points of interest. It was much benefited by the use of small doses of strychnia. The attacks now are of a very modified description, and occur at much less frequent intervals.

The second case was that of M. A. W., a young lady, aged 26, and the effects in this case were very similar. She had been epileptic for nine years, the attacks originating, in all probability, in the stoppage of the menstrual flow from exposure to cold. They came on at irregular intervals, were very convulsive, and she bit her tongue badly. She was pallid, and of a highly sensitive, nervous disposition. In this case, as in the last, I found that pressure over the medulla oblongata produced the most distinct aura, the only difference being that the tingling sensation appeared to come from the pit of the stomach, and was accompanied by a slight feeling of sickness. In this case I obtained marked benefit from the use of sulphate of zinc, in combination with the sulphate of strychnia, as the attacks lessened greatly, and the aura has become more and more indistinct. I merely mention these facts, as they appear to bear so strongly and to point so distinctly to the seat in which convulsions would appear to be organised.

To recur to the subject of treatment. I wish to point out in what mode of administration and in what doses the greatest advantage is to be derived from the administration of strychnia. On my first trials of this remedy, it appeared to me that large doses were necessary, and on reference to some of my earlier papers on the subject, it will be seen that the doses given were often very large. Lately, however, I have found that the use of very much diminished doses, given very frequently, not only produce results quite as favourable, but the good effects more quickly, and there is less chance of attacks arising from accidental irritations in the early stages of treatment.

Dr. Brown-Séquard and others have called attention to the good effects to be obtained by the exhibition of the sulphate of quinine in cases where the convulsive attacks are marked by a regular periodicity. All that can be said of quinine may be said with still greater truth of strychnia. In those cases where the disorder has originated in deranged menstrual functions, and where the attacks come on with great regularity at the catamenial period, I always look to strychnia with the greatest confidence.

In my next paper I purpose to define more fully what classes of cases will be found most amenable to this plan of treatment, and I shall illustrate my remarks with cases which have recently come under my notice.

Claremont House, Great Malvern.

A Translation of Professor Huxley's Elementary Lessons in Physiology has just been brought out in Paris, edited by Dr. Dally, who introduces it as "*La Science sans Phrases.*"

A Conscientious Scruple.—The other day, a woman at the Worship-street Police-court refused to take an oath because she was near her confinement. Mr. Newton asked "what that had to do with it." Answer: "They say, sir, that it is not right, because, when you are that way, it's more than one swearing." The woman stuck to her refusal, and was ordered to stand down.

NOTES ON A CASE OF SEVERE INJURY TO THE SCALP TREATED BY "IRRIGATION."

By F. ROYSTON FAIRBANK, M.D.

THE treatment of severe injuries by irrigation with water is now of somewhat old standing, but has latterly given place, to a great extent, to the so-called "antiseptic" methods; owing, however, to various causes, it is again coming into notice. I am not aware that this treatment has ever been adopted in cases of severe injury to the head, and have, therefore, thought that notes of a case recently under my care may not be unacceptable to the Profession.

Case.—A young gentleman, aged 14, proceeded with his father and sisters along the beach from Lynmouth to the Foreland. Being overtaken by the tide, he, with the others, ascended the cliffs, which at that point are over 700 feet high. When near the top he slipped, and fell a considerable distance down the face of them. On being rescued, he was found lying in a pool of blood, and unconscious. After some hours of unavoidable delay he was brought to Lynton in a cart, and my attendance was requested.

I found him perfectly conscious, but very faint from loss of blood. He had no recollection of the accident. The scalp was divided by an incised wound extending from the left frontal eminence along the middle line of the arch of the cranium to a corresponding point on the left side of the occiput, and was stripped from the skull down to the left ear, hanging as a large flap. The pericranium was bare, and at several points, each as large as a shilling, dried to the bone. There were two other incised wounds, one two inches and a half long across the right coronal suture, the other one inch and a half long over the right parietal eminence. The left eye was completely closed by ecchymosis of the lids. There was also a transverse fracture of both bones of the forearm two inches above the left wrist. He suffered much pain at the seat of fracture, but did not complain at all of his head. His pulse was 80, small, compressible, and irregular. Having cut off the hair, and cleaned and adjusted the wounds, I drew the edges together, and fastened them with interrupted sutures of waxed silk. I then made a "skull-cap" of lint, and fitted it to the head, and rigged up the ordinary irrigation apparatus—a jug of water with an overhanging skein of soft cotton as a syphon, placing the jug on a stool at the back of the pillow. To prevent the bed getting wet, I placed a sheet of waterproofing over the pillow, and turned up the lower edge to act as a "spouting" to convey the water as it ran off the head into a basin at the side of the bed. The sides of this spouting were kept apart by a large soft silk handkerchief laid along the inside. I also put up the forearm in appropriate splints, and ordered a saline draught with hyoscyamus every second hour.

The following morning he was reported to have passed a quiet night, and to have slept several hours. The tongue was dry, pulse 90, and the urine high coloured. The flap of the scalp was greatly swollen, and the hold of the sutures appeared to be threatened. I now added ice to the water, and desired that the stream should be kept up uninterruptedly. He passed a quiet day, and in the evening was decidedly less feverish, the pulse having gone down to 80. The bowels not having been moved since the day before the accident, I ordered a pill containing three grains of calomel and half a grain of opium to be taken at night, and a saline aperient draught to be taken in the morning.

The following day—the second after the accident—he was very much better; the tongue was moist, and the urine less high coloured; the bowels were freely relieved by the medicine. The left eye, which had been closed by swelling of the lids, was now wide open; the scalp was only slightly swollen, and there was slight exudation of lymph from the wounds; pulse 75. In the evening, however, he was not nearly so well in consequence of the irrigation having been accidentally stopped for some hours. There was a considerable amount of irritative fever, face flushed, and the scalp was again much swollen: pulse full 85; tongue dry. The flow of water was re-established, and the misebief explained to the friends.

The next morning—the third after the injury—the fever was gone, and he was better. The scalp was less swollen, and the pulse 72 and natural. The wounds had united along their whole extent by "first intention," and there was not a single drop of pus. The iced water was kept running over his head in consequence of the excessive heat of the weather, and to avoid a return of inflammation and fever. He progressed favourably and uninterruptedly, so that a week after the accident the wounds were firmly healed. The irrigation was now discontinued, and simple water dressing substituted. Seven days after this he was able to walk out, and at the end of three weeks from the time of the accident he returned home to the other side of London, and was no worse for the journey. The arm did well and caused no unusual inconvenience.

Remarks.—The chief points of interest in this case were the union of the scalp by first intention and the powerful influence the irrigation had over the local inflammation and the system generally. That there was neither exfoliation nor suppuration was more than might have been expected, considering the dried condition of the scalp and pericranium. This and the entire absence of cerebral symptoms, although the weather was insupportably hot, I attribute to the treatment. It is notorious that scalp wounds will often do well even when least expected; but the history of this case clearly indicates that mischief would have set in but for the suppression of the inflammation.

Such a case as the above naturally suggests the propriety of applying a method of treatment which has been signally successful in severe injuries of the limbs to those of the head also. Probably the difficulty of keeping the bed dry has prevented its use in such cases; but with some such simple contrivance as that above described, very little annoyance need be occasioned. If a sheet is doubled several times and placed under the shoulders, it can be moved and replaced as often as necessary, and without trouble or inconvenience. By covering the wounds, or rather the whole head, with lint, the cooling effect of the stream of water is greatly increased. A mere trickling of water from the skein of cotton would not answer the purpose so well. If the lint be wrung out of water two or three times a day to clear out any blood or discharge, the dressings need not otherwise be disturbed. The treatment may be varied by the addition of spirit to the water to increase the evaporation if necessary, or by the addition of carbolic acid as an "antiseptic" or *local tonic*, according to the views of the Surgeon, particularly if suppuration takes place.

Lynton, North Devon.

CASE OF

TRANSVERSE FRACTURE OF PATELLA, WITH OSSEOUS UNION, TREATED WITH GUTTA-PERCHA SPLINTS.

By JOHN WOODMAN, F.R.C.S. (by Exam.)
Honorary Surgeon to Exeter Dispensary, etc. etc.

ON the evening of August 21, 1869, W. E., aged 32, a smith and fireman, and a muscular man, was running quickly in the street on an alarm of fire, when he tripped, and, to save himself from falling, threw himself backwards, and in doing so felt something snap in his knee, and fell down. He was brought to my house, and attended to in my temporary absence by my neighbour, Mr. S. Perkins.

On the following morning I saw him, and found on examination that the left patella was transversely fractured, and that the two portions were entirely separated, being drawn widely apart on the slightest attempt to bend the knee. I brought the two portions together with strips of sticking-plaster and a figure of eight bandage, and placed the leg on an inclined plane, with the heel a foot higher than the hip, but finding it impossible to keep them in perfect apposition in this way, on the 23rd I moulded a gutta-percha splint to the front of the knee, cut a hole in it exactly the size of the patella, and then applied this, padded with a little cotton-wool, and another gutta-percha splint for the back of the leg, keeping them moderately tight with a bandage, so as to press the patella through the hole in the splint, and thus hold the two portions firmly together. This answered the purpose admirably, and gave him no inconvenience at all. He was kept like this, with his leg on the incline, for about six weeks, and when he moved about he wore a light wooden splint with the front gutta-percha one, with a portion cut off to make it lighter. He was very anxious not to strain the knee, and kept the back splint on for nearly five months, whilst working at his trade.

I saw him on July 16, 1870, just eleven months after the accident, and found the bone perfectly united with osseous union, so much so as to render it almost impossible to detect the seat of the fracture; the edges of the bone are quite natural and smooth, and only a slight irregularity in the middle

of the surface of the front of the patella can be detected on a minute examination. He can use the leg very well; although he cannot bend it quite as much as the other, still it is fast improving. His own remark was, "It is stronger than the other knee, and I have tried it very much in my trade" (a blacksmith).

The success of this case I attribute entirely to my being able to keep the two portions of the bone in such perfect apposition. As the plan is so simple I dare say it may have been tried before, still, as I cannot find it mentioned in any of the text books on Surgery, there may be some of my Professional brethren to whom the case may be of interest, especially as I see Erichsen says that only two or three cases of osseous union are on record.

St. Sidwell's, Exeter.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

OPERATIONS.

Ligature of Nævus, Removal of very rare form of large Villous Growth from Rectum, and Removal of large Pendulous Fatty Tumour from Thigh—By Sir W. Fergusson. *Excision of Knee*—By Mr. Henry Smith.

On Saturday, August 13, the operating theatre at King's College Hospital was the scene of rather more interesting Surgery than is usually met with during the summer recess. The first case, indeed, was ordinary enough. Sir William Fergusson attacked a large and rapidly-growing nævus or aneurism by anastomosis, which involved nearly the whole thickness of the cheek of a child three months old, tying its several parts with a combination of the marvellously complicated knots which the treatment of these growths calls into existence. The knots employed were afterwards demonstrated upon the blackboard, and the principle pointed out of securing the external parts by subcutaneous strangulation, whilst the portions projecting on the inner mucous surface of the cheek are treated in a less ceremonious way, the mucous membrane being included in the knot, which strangles the mass.

The next case, which bore some affinity to the first in regard to its vascular nature, was as rare as the former was commonplace. The patient, a man aged 61, had been for many years a gentleman's coachman, and a smart active fellow; of late years, however, he had been thought to be suffering from piles, and had been much reduced by bearing-down pains at stool, and copious hæmorrhage and discharge of pus from the rectum. The emaciated, care-worn, sallow man on the table looked far more like the subject of cancer than of ordinary piles, and this was Sir William's opinion when first called on to examine him. This opinion was at first confirmed by feeling a large cauliflower-like mass within the bowel, until the finger detected a comparatively slender pedicle, and it was elicited that the mass descended during defæcation. The removal of the tumour was then recommended. When the man was fully under chloroform, and the right wrist attached to the right ankle by means of lithotomy fasteners (a very convenient way of fixing a patient for rectal operations), Sir W. Fergusson introduced his finger, and immediately a gush of liquid fæces splashing over the assistants heralded the descent of a round, soft tumour, rather larger than a cricket-ball, which then projected from the anus like a foul crimson cauliflower. This formidable mass was of tolerably firm consistence, but soft and easily bleeding on its surface, and sprang with a narrow pedicle from the right side of the gut, about two inches from the anus. The tumour was therefore drawn well down, the pedicle transfixed and tied with a double ligature, and the mass then readily removed with a bistoury, leaving a perfectly healthy-feeling rectum behind. Although evidently extremely vascular, the growth presented none of the characters of a mere hæmorrhoidal cluster. Immersed in water, it was seen to possess the dendritic vegetation structure figured by Rokitansky in his description of his villous cancers—that is to say, the cauliflower appearance was caused by innumerable papillary projections from the main bulk of the mass, which branched curiously in a dichotomous manner, and floated out beautifully in the water which bathed them. We examined a little bit of the tumour under the microscope, and found that the structure was that of the usual papillary outgrowths of mucous membrane, the fibro-cellular basis of the papillæ being covered with a regularly arranged columnar epithelium. There was nothing of a malignant character about this bit, nor indeed did the naked eye appearances suggest any such properties. A villous or papillary growth of this size springing from the rectum is certainly extremely rare. We have never seen anything like it, nor have we read of such a growth. Mr. Quain, in his work on "Diseases of the Rectum," has narrated a case in which he removed a very similar growth from the rectum of a lady, 68 years of age, and in that case the history and symptoms closely resembled those of the patient under consideration, but the tumour was considerably smaller, being described as abont five inches long by two in breadth.

The next patient was a woman with a pendulous fatty tumour, the size of an elongated cocoanut, with an ulcerated extremity, springing from the inner, upper, and back part of the right thigh. It had been growing for 10 years, and was readily removed with the knife. Sir William Fergusson remarked that the operation would have been better done nine years earlier, and better still, nine years and eleven months, when it was first noticed; and he beguiled the time whilst the next patient was being prepared for the theatre, by narrating a case resembling this, in which the removal of the tumour had been called for on accounnt of a ludicrous dilemma in which its owner was placed. Some years ago Sir William saw in consultation a young married lady, who, at the usual time after marriage, being about to become a mother, had engaged accoucheur and nurse and awaited the event with the customary anxiety. Well, the time of her trouble came, and a messenger, kept on the alert, was dispatched in hot haste for the Physician. On his arrival, however, he was met at the door by the nurse, who had meanwhile taken the opportunity of making an examination on her own account, and who told him in much dismay that he was too late, "the child was already born, and the head had been through some time. If he put his hand under the clothes, he would feel the head on the bed." This being done, there was the head, sure enough; but something doubtful of the feel of the features, the Doctor explored further, and discovered another head presenting in the proper position. The lady was not quit of her burden for some hours later; but after such an occurrence it was deemed advisable to remove the growth, lest a more zealous Accoucheur on a subsequent occasion might apply the forceps, and endeavour to make the body follow the truant head.

The last case was one of excision of the knee by Mr. Henry Smith. The patient was a young woman, with old-standing disease of the knee, terminating in globular enlargement of the joint, with partial anchylosis, and severe and more or less constant pain. The health being much damaged by pain and sleepless nights, amputation or excision was called for. It was clearly a case in which, as Mr. Smith said, amputation would have been abominable. He therefore excised a large wedge-shaped piece, getting clear of all the disease, sponged in a solution of chloride of zinc—as recommended by Mr. De Morgan—tied the unusually large vessels, sewed up the wound, and arranged the limb very firmly in good position on a straight McIntyre's splint.

Small-pox in India.—Dr. Robert Harvey, in a sketch of the late epidemic of small-pox in Bhurtpoor, reprinted from the *Indian Medical Gazette*, shows, by a long series of facts, the value of the vaccine agent in protecting life and health. The effects of revaccination were strikingly marked in several regiments. With regard to vaccination in general he says—"The whole series of cases goes to show that the protective power of vaccination in our British forces is very strong. In upwards of thirty stations, in most, if not in all, of which cases of small-pox occurred among the general population, and in some of which, as Muttra, the disease was raging furiously, no British soldier was attacked. There was but one case at each of eleven of the twenty-two stations where cases occurred. Delhi, with its 1613 deaths, was one of these. Jullunder, 'where it raged,' another. Umballa. Nowgong, Shahjehanpoor, Dum-Dum, Sealkote, and Peshawur, several of them large garrisons, were others. At Benares, where a very imperfect system of registration recorded 518 deaths among the natives, there were only two cases in the three corps forming the English garrison. At Allahabad, where 403 deaths were registered, where I know the disease to have been severe, and where Dr. Irving says, 'The mortality is evidently very far short of the truth,' there were eight cases and one death in two batteries of Artillery and H.M.'s 58th Regiment stationed there."

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Medical Times and Gazette.

SATURDAY, AUGUST 20, 1870.

PROFESSOR LAYCOCK ON EDUCATION.

Dr. Laycock's address, delivered to the Edinburgh graduates on the occasion of their admission to the doctorate, was remarkable for the breadth of its philosophy. It bore upon the great question of the day, the question of education; but it threw new light upon it. Dr. Laycock said truly that it had been exhaustively discussed by the laity in every aspect but one, and that one aspect—namely, its relation to public health, and so to public welfare—is all important. Starting from the axiom that "man is an indefinitely improvable animal," and that the welfare of a nation rests ultimately upon the sum of its vital and mental energy, he pointed out how certain theorists vie with each other in the promulgation of schemes for our social regeneration and for perfecting the human race. These persons have each his infallible specific, and never learn wisdom by their failures. They are social quacks, men who, unlearned in human nature, think to regenerate mankind by the application of some one favourite principle that they have taken under their patronage. Now it is the principle of liberty of judgment and personal freedom which is opposed to all legislation for stamping out small-pox by vaccination; now it is some opinion as to venereal diseases being the natural punishment for sin of a particular kind, and its appropriate check, which is raised against special enactments for the separation of diseased from healthy women; now it is something about over-population and physical degeneration of race, which is opposed to those sanitary reforms that would preserve the lives of the less strong amongst us; and now it is a theory about national wealth and the rights of men to obtain all the enjoyments of the senses and intellect that civilisation can afford, which demands of the Medical Profession suitable means to check the increase of families, and holds up the use of such means as a "moral duty." Dr. Laycock truly said that while Medicine is purely beneficent in its objects, and obviously cannot be made subservient to anything less noble than the preservation of life and health, while it cannot therefore be the tool of sensualists or political economists, the explanation of all the mischievous hypotheses referred to is to be found in an ignorance of that which school and college education ought to provide for all.

"The source of these mischievous hypotheses is to be found in neglect of the study of the great laws of human life and organisation in their relation to morals and to social and political economy. . . . So long as our professors of theology, moral philosophy, and social and political economy neglect these studies for ancient and barren speculations, they must remain barren of results. Here a wider range of university education and study is needed. When political and social economists have incorporated the science of life with their studies, they will discover that there is no one infallible means available for the perfection and happiness of the human race, but that numerous agencies are needed, all tending to develope a conjoint physical, moral, and intellectual culture."

Compulsory sanitary legislation can, in a free country like this, only prove efficient to its end where it is considered just and expedient by the mass of the community. Otherwise, the plea of conscience is sure to be raised in opposition to it. Hence the necessity of educating all classes in the laws which govern the health of the body, not as a mere matter of precept, but by the domestic practices of home. Dr. Laycock dwelt also at some length upon the relation to public health of sound national morals, which can only have their foundation in religion. The relation of religion to public health is both general and specific. It is general when we regard it as inculcating great fundamental truths, which are the same whatever the variations in creed, and also when we regard it as a principle which operates through the individual conscience and will. It is specific, inasmuch as it teaches that the body of man is the temple of the Deity, and is to be preserved in the condition best befitting so august an inmate. It may be maintained that it is a religious duty to care for the health of our own body, if only because thus alone can we do the work perfectly that we are sent into the world to perform; and if of our own then also of our neighbours, for we must love our neighbour as ourselves. Dr. Laycock had a great deal to say on this head; all was said well, and we hope that those to whom his words of wisdom were addressed will turn them to profitable use.

THE HYGIENE OF WAR.

It has long been a recognised fact in the history of all wars that, however sanguinary the engagements may have been, the losses by disease have far exceeded those inflicted by the enemy. The deficient superficial accommodation afforded to an army in the field is in itself a most important factor in the production and extension of zymotic diseases, and is besides, one which, from the nature of the duties to be performed and the exigencies of strategy, may be well considered inevitable. Doctor de Chanmont, in his lecture on military hygiene, recently delivered in the Royal United Service Institution, refers to the Report of the Royal Commission of 1857 on the sanitary condition of the British army, in which it is stated that in East London, the most densely-populated part of the kingdom, the number of persons per square mile is 175,816. To provide such an amount of superficial area for an army in the field we should have to give 300 square yards to each tent, but the regulation area of 145 square yards represents about 320,000 per square mile; in some cases only 50 square yards have been given, representing 930,000 per square mile. And, as not unfrequently happens, when the tents are pitched together as close as they can stand, giving some 22 or 23 square yards for each, the overcrowding represents the enormous amount of about 2,000,000 of men to the square mile. When such a state of affairs lasts for any considerable time, combined, as is only too often the case, with a dietary bad in quality and insufficient in quantity, with harassing duties, the depressing effects of defeat, or of the enforced delays by which the hope of victory is deferred, disease and death find easy victims. Scurvy has ever been the great enemy that armies have had to contend with. Notwithstanding the great and unprecedented exertions of the Government of the United States, supplemented as they were, by the bountiful administrations of the Sanitary Commission, it remains a fact that, owing to an insufficiency of vegetable food, the armies of that country during the late war were in a condition of imperfect health, and often scorbutic. Dr. Hamilton, in his work on Military Surgery, states his confident belief that 20,000 men might have been saved to General

McClellan's army on the Chickahominy if the men had been furnished at all times with a fair amount of fresh vegetables. He also forcibly describes the important duty which devolves upon Medical officers—and for which they alone possess the requisite knowledge—of keeping commanding officers fully informed of the earliest or even slightest trace of scurvy among the troops. For this purpose a considerable amount of discrimination must be employed, as men who are slightly scorbutic often present an appearance of robust health, especially when their bloated features are bronzed by exposure to the sun and air. Dr. Hamilton further remarks that even Medical officers are not always fully awake to the danger which is upon them when *one* well-marked case of scurvy is brought to their notice, and adds "if there is but one it ought to furnish a substantial ground of suspicion that the physical condition of the whole, or nearly the whole, of the command is imperfect." The rheumatic pains, the bloody discharges from the bowels, the tender gums, the short breath, the irregular action of the heart, the obstinate ophthalmia, the sudden deaths of patients suffering from diarrhœa, the speedy exhaustion of men in the trenches and on the march, the frequency, rapidity, and fatality of typhoid pneumonia, are all referred to by Dr. Hamilton as the results of impoverished blood and indications of the scorbutic taint. The aggravated forms assumed by typhus, dysentery, and other zymotic diseases, the greater liability of the wounded to hæmorrhage, primary, secondary, and parenchymatous, the generally unhealthy action of wounds, the difficulty and slowness of repair of fractures, the absorption of callus in fractures already united, and the fresh breaking out of old sores in scorbutic cases are well-known. "But for the scorbutic taint," says Dr. de Chaumont, "it would be comparatively easy to deal with the other causes of disease. Even cholera would lose half its terrors in the presence of a thoroughly well-fed body of men."

It is therefore no exaggeration to say that the dietary of an army in the field is a subject of paramount importance. Armies have of course performed prodigies of valour under circumstances of great privation, but says Dr. de Chaumont, "as Providence has been said to be on the side of the largest battalions, so will it also be on the side of the best fed battalions." The two important points laid down by Dr. de Chaumont in providing the diet of the soldier in war are—

"1st. To provide a diet which shall furnish sufficient force for the work required of him—that is, to make the food proportionate to the exercise.

"2nd. To provide a diet of sufficient variety to prevent the occurrence of scurvy."

Does the present scale of diet of English soldiers fulfil these requirements? The question is of momentous interest. The reply, we regret to say, is by no means satisfactory. The subsistence diet for a man at rest, calculated from Frankland's figures (Parkes's "Hygiene," p. 170), is equal in potential energy to about 2330 foot-tons. The standard average diet for a man doing a good day's work—equal to 300 foot-tons—is estimated as supplying 3833 foot-tons of potential energy; and for a man doing laborious work—or 450 foot-tons per diem—the equivalent of potential energy should be 4784 foot-tons. The work of the heart, etc., is estimated at 260 foot-tons, so that the difference between the sum of the heart-work and external work represents the amount of potential energy as food absolutely required for the animal heat and other processes. Dr. Parkes calculates the ordinary diet of the English soldier at home as equal in potential energy to 3640 foot-tons. It is much below the working-man's standard, and on it we could not with safety demand more than a very moderate day's work—say from 150 to 250 tons. Seeing that a march of ten miles in heavy marching order is alone estimated as equal to 250 foot-tons, some idea may be formed of how far from adequate the present scale of soldier's diet is. A war diet, says Dr. de Chaumont, ought to provide for a minimum amount of work of 350 to 400 tons, and be capable of being increased at the shortest notice to 500 tons or more, as circumstances call for it, representing a potential energy of from 4280 to 5000 foot-tons. Not only is the *quantity* of the soldier's food at present deficient, but the *quality* is defective, as regards the relative proportions of its component parts. Dr. de Chaumont tells us that the following fundamental errors exist in it:—

"The albuminates are *deficient*.
"The fats are *very deficient*.
"The starches are *somewhat in excess*.
"The salts are *rather deficient*."

Monotony of diet (though now somewhat rectified) still exists to a considerable extent. A dietary open to such objections cannot be depended upon to prevent the inroads of scurvy when other circumstances produce a tendency to that disease, and to remedy its defects Dr. de Chaumont proposes the substitution for the present scale of soldier's diet of the following, of the various articles of which we extract merely the gross weight, omitting the proportions of the constituent elements:—

	oz.
Meat, 1 lb., less bone	12·8
Bread	20
Potatoes	16
Vegetables, as carrots, etc.	4
Peas or beans	3
Cheese	2
Bacon-fat, oil, or butter	2
Sugar	2
Salt	·5
Vinegar	2
Condiments	as required.
Tea	·5; or
Coffee or cocoa	2
Beer	20; or
Wine (red)	10

This would give—

Nitrogen	375 to 390 grains.
Carbon, exclusive of alcohol	5300 to 5930 ,,
Salts	780 ,,

Equal in potential energy to from about 4800 to 5300 foot-tons. Such a diet regularly supplied, and cooked in a skilfully varied manner, would be amply sufficient for the ordinary fatigues of war; but in cases of extreme exertion, such as forced marches, prolonged duty in the trenches, etc., might require to be supplemented by the issue of concentrated soups, Liebig's extractum carnis, etc.

The best weapon to fight the real enemy of the soldier—disease—is good and sufficient food. In a truly hygienic force but few of the wounded ought to die, and the immediate expenditure of money involved by increased liberality in the matter of the dietary of our soldiers would be amply compensated for by the increased health and efficiency of the army. The improvement of diet ought not merely to be considered as a temporary expedient to be hastily adopted in time of war, but should be at once effected as the best means of preparing the system of the soldier to endure with comparative impunity all the exigencies of service.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. V.

At the close of our former article on the hydrate of chloral we referred to Dr. J. B. Russell's valuable report on its use in typhus fever. The Physicians of the Royal Infirmary, Edinburgh, have also had an ample field for observing the action of the drug in fever, and found it valuable in assisting and promoting recovery by palliating distressing symptoms, though it has no direct influence in cutting short the disease, or in any way affecting its natural course. "In doses of thirty grains, repeated every hour—two or three times if necessary—in most cases a quiet and refreshing sleep is produced, which serves greatly to maintain the strength of the patient." Appetite is sometimes apparently improved, and excitement and

chlorum are frequently diminished. Violent head symptoms may require increased doses, forty to sixty grains. And it appeared, "from a limited series of observations," that in fever chloral produces little or no effect on the temperature, as determined by the thermometer (*Brit. Med. Journal*, April 30, 1870).

We have already alluded to its value in *delirium tremens*, and considerable evidence of this might easily be adduced. Dr. J. H. Barnes records (*Lancet*, November 27, 1869) ten cases of this disease treated by chloral, and in most of them quiet sleep was quickly induced. Dr. Cerenville found in a case of the disorder 15 grains repeated for two successive days procure sleep and calmness (*L'Union Médicale*, February 12, 1870). In the Edinburgh Royal Infirmary it is found to be "almost a curative agent in this disease, as in most cases, notwithstanding violent excitement or delirium, it produces a prolonged sleep, from which the patient frequently awakes sane and rational." And numerous communications to the Medical journals at home and abroad might be quoted to the same effect.

In *acute mania* its effects are of the highest value. Dr. G. Crawford has related (*Medical Times and Gazette*, January 22, 1870) a case of acute mania in a female, who had not slept during five consecutive minutes for five weeks, and who had taken opium and morphia without benefit. He prescribed twenty-five grains of chloral for three nights in succession, and its effects were marvellous. Tranquil continued sleep was procured, and the patient rapidly recovered. In two maniacal females, whom baths and opium had failed to tranquillise, Dr. De la Harpe found that thirty grains of chloral almost immediately caused sleep (*L'Union Médicale*, February, 1870); and Dr. J. B. Tuke, Dr. Clouston, Mr. R. Gardiner Hill, and others have found it, as Dr. J. B. Tuke terms it, "the most valuable means of producing sleep which has yet been introduced into the pharmacopœia of the Asylum Physicians."

Dr. Clouston, a most accurate and trustworthy observer, after having given it in forty cases of various forms of insanity, has thus summed up his experience of it:—

"It has proved a most safe and certain sleep-producer; by it we can compel sleep in any case. By means of this property attacks of insanity may probably be warded off in some cases. Its action in abating and soothing excitement is more uncertain than its sleep-producing power, and lasts a shorter time than that of any signally powerful drug, but is most valuable in certain cases, especially in some recent and curable ones, where formerly we should have been afraid to give opium. Whether it does good or not, it never does harm; and is in this respect the very king of narcotics. It generally reduces the temperature slightly, but in maniacal excitement not nearly so much as does alcohol in large doses. It should be given to subdue brain excitement in doses beginning at twenty or thirty grains, repeated in from three to five hours. To produce sleep in great excitement, from forty to sixty grains are required, the latter dose not failing in one per cent. of the cases."—*British Medical Journal*, May 7, 1870.

Dr. W. Macleod also has contributed (*Practitioner*, August, 1870) a valuable paper on the action of chloral in *Paralysis of the Insane*. He reports that when the patients are destructive and violent, the judicious administration of the drug acts as an excellent hypnotic by night, and soothing agent by day; that under its action patients have been free from destructive habits, and have gained in weight and strength; the action of the bowels and bladder have improved, and appetite has increased; that it lessens abnormal sensations, often cuts short hallucinations of hearing, and stops the propensity of patients to hurt or maim themselves. He had also found that in melancholia convalescence is advanced by its employment.

In *puerperal mania* the chloral has proved of great value. Thus, Dr. S. Teller relates a case in which morphia internally and by hypodermic injection was used without the least effect, and bromide of potassium caused excitement, but recovery took place under the use of the chloral. And Mr. A. M. Adams reports (*Lancet*, January 22, 1870) a case in which he had given bromide of potassium, Battley's sedative, and chloroform by inhalation without relief, but the chloral, in doses varying from 40 to 60 grains, produced calm consciousness, followed by from six to eight hours of quiet sleep. In *puerperal convulsions* again it has given great relief, followed by recovery, after the failure of belladonna and the bromide of potassium (Mr. Hay in the *Practitioner*, March 1870); and Baron von Seydewitz has reported to the Obstetrical Society of London (*Medical Times and Gazette*, April 16, 1870) on the efficacy of "The Chloral Treatment of Eclampsia."

In *chorea* a large number of cases have been recorded showing the remedial influence of the drug. Sir J. Y. Simpson tells us (*Medical Times and Gazette*, January 1, 1870) that he has given it in continuous small doses for one, two, or more weeks in succession in chorea "and apparently with most marked benefit." M. Bouchut has in severe cases found it beneficial, and M. Bricheteau has recorded (*Bullet. Gén. de Thérap.*, November, 1869) his conviction of its value in severe chorea in children. Dr. Russell also relates (*Medical Times and Gazette*, January 8, 1870) a case of very severe chorea in an apparently healthy woman during the early months of pregnancy, in which bromide of potassium was useless, but the administration of chloral was followed by the happiest results.

It has been given also in *tetanus* and recovery has followed. As it causes, when given in large doses, extreme muscular relaxation, it was natural to hope for benefit from its use in such a disease as tetanus, and M. Verneuil reported to the Société de Chirurgie (*Medical Times and Gazette*, April 30, 1870) a case of traumatic tetanus cured by chloral. The case was very marked and severe, the spasms affecting the muscles of the face, jaws, neck, spine, abdomen, and lower limbs, and resisting the influence of bromide of potassium and the hypodermic injection of morphia in large doses. But immediate relief was obtained by hydrate of chloral in full doses. In the course of the case, and a month elapsed before complete recovery, relapse occurred three times, and always when the chloral had been temporarily suspended. The daily dose varied from 5jss. to 5iij., and no ill results were at any time observed. We have seen a very similar case lately, under the care of Mr. Spencer Watson, in the Great Northern Hospital, ending, under treatment by chloral, in about the same time in perfect recovery. And M. Verneuil has also related to the Société de Chirurgie a case treated by M. Dufour, of Lausanne, by the chloral. The daily dose of the drug had to be carried to twelve grammes, but the patient left the Hospital cured at the end of a month.(a) It may be objected, and in M. Verneuil's cases has been said, that in these cases the patients recovered by lapse of time; but, at any rate, the chloral exerted an invaluable remedial influence by procuring relief from spasm, by giving sleep, and allowing the patients to take nourishment. And though our experience of the action of chloral in this disease is not yet sufficient to warrant full reliance on it, yet it is certainly enough to encourage further trials; and our hope in it is strengthened by Liebreich's discovery that the action of chloral and that of strychnia are so antagonistic that strychnia is an antidote in the case of chloral poisoning (*Medical Times and Gazette*, vol. ii. 1869, p. 723).

M. Marjolin stated to the Imperial Society of Surgery that he has administered the chloral internally to relieve the *severe pain from burns*, and with complete relief to the patient (*L'Union Médicale*, May 19, 1870).

It would be easy, did our space permit it, to add considerably to this list of the conditions in which the hydrate of chloral has proved remedial or highly useful. It has been employed with the happiest effect for the relief of the cough in advanced phthisis of the lungs, and has proved a very valuable anodyne in some cases of gastralgia, pleurodynia, hysteralgia, dysmenorrhœa, etc., in the pain attendant on cancer and acute local inflammations, and in lead colic and other forms of colic. In cases also of irritable bladder and chronic cystitis it has been

(a) *Gaz. Hebdom.*, July 8, 1870.

found to give much longer and more perfect rest than large doses of opium.

In *phthisis pulmonalis*, the Physicians of the Edinburgh Infirmary have found chloral most valuable for producing sleep, for soothing irritation, and for relieving cough. Dr. J. Hughes Bennett observes (*Practitioner*, May, 1870) that such is the loss of appetite, increased weakness, and emaciation which follow the use of opiates and chlorodyne, that he never gives them except in the last stages of the disease, "and when, all hope of prolonging life having ceased, we choose the least of evils in procuring even unhealthy sleep. But matters are greatly changed when we are able to obtain the natural sleep that chloral gives. By its aid we can lull irritation, and give rest for a time, in many cases, without any injury whatever." He gives the results of its employment in twenty-one cases, and in the vast majority "the relief to the cough and restlessness at night, with the production of sound sleep, was most marked, while the head, tongue, and appetite were in no way affected."

We may note also that Mr. E. Lambert has lately (*Edinburgh Medical and Surgical Journal*, August, 1870) given us an instructive report of his experience of "the influence exerted by chloral on the pain of parturition." He gives fifteen grains every quarter of an hour "till some effect is produced, and according to the nature of that effect the further administration is to be regulated." He finds that it "does not only not suspend, but rather promotes, uterine contraction;" that it is of great value; and that, while "it is *the* hypnotic for the first stage of labour," it may be administered under favourable circumstances "during and at the close of the second stage, with the result of producing absolute unconsciousness in the same sense in which we understand unconsciousness under chloroform."

Lastly, we observe that Mr. Lawson Tait has found the chloral a valuable adjunct to opium and chloroform. A smaller dose of morphia is required if a little chloral be also given, and when a patient is under the influence of chloral the inhalation of a few drops of chloroform suffices to produce profound anæsthesia (*Medical Times and Gazette*, vol. i. 1870, p. 193).

The very important question as to the reduction of temperature by chloral must be considered as yet unsettled. Dr. Richardson found that, "during the narcotism produced by the substance there is invariably reduction of temperature," and "that in birds and rabbits the temperature may fall five, six, and even seven degrees Fahr., and yet the animal may recover." And cases are not wanting to support the idea that it may be of great value—given in moderate and frequently repeated doses—for this purpose. But, on the other hand, some observers have failed to note any such effect, and others have noticed a diminution of only one or one and a half degrees Fahrenheit.

The drug should always be given in small doses at first—gr.xv. or gr.xx.—with the view of observing its effect in each individual case. The particular conditions which contraindicate its use have not yet been accurately defined, but weakness of the heart, and marked cerebral anæmia must be held, we think, to impose at least special caution in its employment. It may be given with perfect safety and perfect success to children, in doses of two grains to an infant of eighteen months, of three grains at three years of age, and of ten grains at nine or fourteen. As evidence of this, Mr. A. N. Adams has successfully given five grains three times a day, or six grains at bed-time, in a severe case of pertussis in a child of six years of age.

It is worthy of special note that when the chloral is given as a hypnotic, care should be taken, so far as is possible, to help and promote the desired effect by administering the drug at or near the accustomed hour of sleep, and by securing perfect quietude and rest to the patient. It has not unfrequently been observed to produce no effect, except perhaps some slight unsteadiness or giddiness if the patient has been moving about or there has been any noise or disturbance in his room, while the same dose will produce quiet and prolonged slumber when the individual has been in bed, and in circumstances favourable to hypnotism.

We do not pretend to have stated all the conditions in which the hydrate of chloral has been found useful; and no doubt it will prove of value against some disordered states in which, so far as we know, it has not yet been tried. Thus Liebreich has suggested that, as chloroform has been given with the idea of its dissolving biliary calculus, the chloral is preferable for that purpose as furnishing chloroform in a nascent, and therefore more active, condition.

But it has been amply proved that, while the chloral will of course sometimes fail to produce the desired effect, it is in a very large number of cases unrivalled as a hypnotic and anodyne. It is, as a general rule, in appropriate dose, as sure a producer o sleep and soother of pain as opium itself or any of its preparations. It is more swift in action, more prolonged in effect, and produces a more calm and tranquil and innocent sleep. Sir J. Y. Simpson observed, "Ever and anon cases are well-known to occur in practice in which patients declare their inability to take opium in any form without suffering severely from nausea, faintness, restlessness, and other evil effects. In several such cases I have used chloral as a hypnotic with perfect success." And again, it has been found "to produce its hypnotic effects where opium, from long-continued use, had ceased to do so." But its highest value, its greatest superiority, lies in the fact that the sleep it induces is nearer in character to natural sleep, to the sleep

> "That knits up the ravelled sleeve of care;
> The birth of each day's life, sore labour's bath."

than that excited by any other artificial means. Chloral sleep is much more natural than the sleep produced by opium, hitherto the most powerful and certain hypnotic. Dr. J. B. Russell (*Glasgow Medical Journal*) has well pointed out the differences:—

"In both, as in natural sleep, the pupil is contracted to the utmost, but in chloral sleep it immediately dilates on awaking, just as in natural sleep. This is not the case in opium sleep. Again, chloral sleep is more natural in this respect—that the sleeper may be roused at any time, and at once recovers the full command of his functions; he may take food, pass urine, cough with full strength, expectorate, etc., and, as soon as the temporary excitation ceases, he may drop over again into unconsciousness. Not so with opium. The excretions are not disturbed by chloral. They are by opium."

The chloral sleep is, as already observed, gentle, calm, prolonged, refreshing, and followed by no unpleasant effects.

THE WAR.

We publish to-day a letter—the first, we hope, of a series—written by a well-known and accomplished Physician, who has left England to be the special correspondent of this journal in the French camp and military Hospitals. The graphic description our correspondent gives of the organisation of the ambulance system by the Société de Secours aux Blessés Militaires will, we are sure, be appreciated by our readers. These voluntary efforts for the wounded form one of the few bright bits in the dark picture of this sanguinary war. We also hope to furnish our readers from time to time with letters from correspondents who are now acting on the Medical staff of the German army. It is, of course, impossible to promise that our *collaborateur* on the French side will be permitted to reach Chalons or Metz, but we know that he will accomplish everything for our readers that energy, determination, and skilled intelligence can compass, and we fully expect to receive from him a series of letters of the highest Medical and historical interest.

THE WEEK.

TOPICS OF THE DAY.

If the Newcastle meeting of the British Medical Association has not been signalised by the announcement of any great discoveries in the science of Medicine, or by any great practical improvement in the healing art, it will at least be memorable for an unmistakeable snub—we know of no more expressive word—administered by the Association to the General Medical Council in the all but unanimous rejection of Dr. Acland's amendment to the Report of the Direct Representation Committee, although that amendment was supported by five of the most influential members of the Council. For ourselves we do not credit the British Medical Association with doing more than lending a helping hand to the overthrow of the Government Medical Reform Bill. The Bill was virtually lost when it was altered in the House of Lords by the omission of Clause 18 to purchase the acquiescence of the Universities. It was this that arrayed against it the principal of the Corporations, and every Medical reformer who believes that the Medical Profession will never be useful in the highest degree to the public and united and influential in itself until every one of its members be made to undergo the same training and examination in the fundamental parts of Medical science. It was the dissatisfaction which on all sides greeted Lord de Gray's amendments that weakened irretrievably the chances of the Bill, and double-shotted the artillery which the British Medical Association and other Medical bodies brought to bear against it in the House of Commons. We happen to know that influential members of that House in no way prompted by the British Medical Association were prepared to oppose the Bill, and in all human probability would have done so effectually. The question of direct representation was only one of the rocks on which the Bill split. It is true that the Newcastle meeting and a large number of the Profession have declared in favour of direct representation; but it is a much more significant fact that the Birmingham Council of the Birmingham Medical Reform Union, who have had some experience of the expenditure of time and money which the canvassing of the whole Profession involves, have published a report which is rather in favour of indirect than of direct representation, on the ground of the outlay and labour which would be demanded from a direct candidate. We believe that the constitution of the General Medical Council would be improved, and that it would be rendered more popular in the Profession had the graduates and members of the various colleges and universities a voice in the election of their representatives, and we think that one great error in the course pursued by the Government, was the refusal to introduce any provision for thus placing the General Medical Council on a broader basis. But this was only one of the defects of the Bill, and, in our opinion, it was surpassed in importance by the abandonment of the one portal principle. We quite agree, however, with the members of the British Medical Association in the propriety of peremptorily rejecting Mr. Forster's offer of a committee next session to inquire into the constitution of the General Medical Council, provided opposition to Lord de Grey's amended Bill were withdrawn. This meant one of two things—either the shelving of the question altogether after the passing of an imperfect Bill, or the prospect of a succession of Medical Reform Bills to supplement the Medical Acts (1858) Amendment Bill. We do not expect finality, but if every existing institution is to be altered and modified, and much that has done good service in the Profession is to be swept away, at least let us have a measure which will give us a vigorous Professional constitution that will not require tampering with for at least a score of years.

We are glad to learn that it was determined at the last Council meeting of the Royal College of Surgeons that the Committee for forming a conjoint board of examiners with other examining bodies should be again put in action, and that Mr. Quain and Mr. Cock should be added to its number. If we are to wait for a conjoint examination until a Medical Reform Act be obtained, we are very likely to wait a considerable time. Mr. Solly has resigned the office of Hunterian orator, which is to be filled by the President, Sir W. Fergusson. The consideration of Mr. Gay's motion for representation of the Fellows and Members in the General Medical Council is postponed, and the Council has determined that not less than half of the members of the Court of Examiners shall be selected from the general body of the Fellows.

There have been several cases of considerable Medico-legal interest tried on the various circuits within the past week. A shopkeeper, named Carver, living at Croydon, was tried by Mr. Justice Blackburn for the murder of his wife. It appeared that the two were quarrelling, and the woman received a wound from a knife, from the effects of which she died almost immediately. The prisoner's account of the transaction was that he was cutting his dinner with his knife, when his wife rushed at him to strike him, and she fell against the knife which was in his hand. On the other hand, a witness, who was in the shop adjoining the room where the quarrel took place, stated that he saw the prisoner raise his hand two or three times as if striking violently at some one. The Surgeon, who examined the body of the woman, stated that there was a transverse wound on the left side, situated between the fourth and fifth ribs, and about four inches deep, such as might have been made with a knife. There were, he said, two slight scratches or abrasions on the cheek, not cuts or bruises, and two scratches on the right ear, and one abrasion on the breast, just over the sternum. The opening of the fatal wound was an inch and a half below its termination. The direction of the wound was straight, and it entered the heart. That wound was the cause of death, and it would, the Surgeon said, cause death at least in two minutes. In answer to the prisoner's counsel, he said it was possible that the wound might have been caused by the woman rushing upon the knife as the prisoner represented, and the nature of the wound tallied with his account of it. In answer to the judge, the Surgeon said he did not think the direction of the wound was downward, but upward; a downward blow, he thought, would not have caused such a wound. The direction of the blow was, he thought, upwards to the heart, which the knife had just entered. The knife entered between the fourth and fifth ribs, and the wound went upwards to the heart, between the third and fourth rib. Judge Blackburn, in summing up, pointed out the fact that the character of the wound corresponded with the prisoner's statement; and laid stress on the fact that there was only one wound inflicted with a knife, whilst the evidence of the principal witness against the prisoner was to the effect that he saw him strike repeatedly. The jury, however, refused to give the prisoner the benefit of the reasonable doubt, found the man guilty of murder, but recommended him to mercy on the ground that his wife had provoked him by giving him a dirty plate for dinner! Another case of some interest was that of a labourer, named Mahoney, who was tried for the murder of his wife, who died from tetanus caused by wounds inflicted by him a month before. The jury found the prisoner guilty; but the judge said that he had not intended to kill his wife. His crime was the infliction of violence, and he sentenced him to eight months' imprisonment with hard labour. Another case in which important Medical evidence was given was that of John Johnson, who was tried for the wilful murder of Eliza M'Layley. This case turned completely on the Medical evidence. The woman was found with her throat cut diagonally upwards from left to right, from the middle of the collar bone to the angle of the jaw. Mr. W. Swift Wade, who examined the body, said the length of the wound was four inches and three-quarters, and it went down to the front of the spinal column. The carotid artery and the jugular vein were separated, and there

were two or three indentations on the bone. A hairpin had been driven in at the back of the neck. The hands were clean, except a spot of blood on the back of the right hand. In his opinion the throat had been cut by some person other than the deceased. Mr. Robert Lawson Tait had attended the deceased woman at the Hospital some weeks before. She had dislocated her right shoulder, and the result had been paralysis of her arm, so that it was impossible she could have inflicted the wound herself. The prisoner had been seen in the company of the woman, and blood was found on his shirt-sleeve. But he had a wound on the back of his head from whence the blood might have come, and the jury acquitted him.

A trial of a totally different character is reported on the Liverpool circuit. Mr. Molyneux, the Surgeon at Upholland, near Wigan, sued a Mr. Smith, a colliery proprietor, for the sum of £63 for attending two miners who had been injured in an explosion which took place in the defendant's colliery in 1868. It was clearly proved that Mr. Molyneux had attended the men by the defendant's authority, and we are glad to say he recovered the full amount of his charge.

Hargreaves *v.* the Lancashire and Yorkshire Railway Company was another of those railway cases signalised by the diversity of Medical opinion. The Medical witnesses called for the Company said there was no organic injury, and the plaintiff would be well in twelve months. The plaintiff's witnesses said there was congestion or slow inflammation of the spine going on, and the jury returned a verdict for the plaintiff, with £1250 damages.

Medical men who wish to volunteer for Professional service in the Prussian army should apply to the North German Embassy. The consent of our own Government is only necessary in the case of army and naval Medical officers. We notice with regret that the Lords of the Admiralty have refused leave to several naval Surgeons who have wished to offer their services to those who have charge of the wounded in the two hostile armies.

A case of death from chloroform is reported from Liverpool. The patient, a man of 42, was admitted into the Royal Infirmary suffering from disease of the right foot. An operation was deemed necessary, and chloroform was being administered, when he sank rapidly and died in a few minutes. The post-mortem revealed diseased heart and kidneys.

RELAPSING FEVER IN LIVERPOOL.

The epidemic of relapsing fever in Liverpool shows no sign of declension. Indeed, it is said by some of the gentlemen who are engaged more especially in watching it, to be assuming a severer type as well as greater extension. Whether this be so or not, there were for the first time during the epidemic several fatal cases last week among those admitted to the parochial institutions. Up to Saturday, the 13th inst., there had been three deaths. At that date there were 507 cases of fever under treatment at the three buildings open for their reception, and of these 484 were thought to be relapsing. Between forty and fifty cases also are reported to be in the Birkenhead Workhouse Hospital by the Medical officer of that institution; while in that of Toxteth—a parish immediately adjacent to Liverpool—there were, on the 11th inst., 68, and the Medical officer then announced that, if there were any increase, it would be necessary to use the ward occupied by female infirm paupers.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

If the circumstances of the Poor law Medical service in England are in any way analogous to those of Ireland, we may look for a very large number of cases of Medical officers retiring under the Act just past. Although but a short time elapsed between the passing of the Irish Superannuation Act and the publication of the annual report of the Commissioners for Poor Relief in that country, its provisions have, it appears, been extensively exercised. The commissioners say (page 27)—

"The Medical officers of twelve dispensary districts and of four workhouses have already availed themselves of the privilege bestowed upon them by the indulgence of the Legislature. In every one of these cases it may be safely assumed that the Medical officer was completely disabled by broken health or by advanced age from the efficient performance of his duties, and that therefore the appointment of young and active men in the stead of the superannuated officers will be attended with great benefit to the sick poor of the respective districts and workhouses."

Seeing the proportion borne by the total number of Medical officers in England and Wales to the number in Ireland, we may look for an immense boon as likely to be conferred in this country by the recent Act. It is sincerely to be hoped that boards of guardians, with whom rests the initiative, will not be slow to avail themselves of their powers, and that each guardian will, as the case of any old and tried officer comes before him, adopt Charles Reade's advice—"Put yourself in his place."

CONVALESCENT HOME FOR NORTH LANCASHIRE.

Mr. H. W. Schneider, of Belsfield, Windermere, has given a mansion situate near the sea at Piel to be devoted to the purposes of a convalescent home for North Lancashire. Mr. Schneider's object is to afford the advantages of a convalescent institution not only to patients in the North Lonsdale Hospital at Barrow, but to extend these advantages to Lancaster, Preston, Blackburn, Bolton, Kendal, and other inland towns. We understand that Mr. Schneider, in presenting the mansion and grounds at Piel, contemplates the establishment of an institution on a basis similar to that of Mrs. Gladstone's Home, the current expenses being defrayed by a small weekly payment from each patient, supplemented by subscriptions and donations. The cost per head is about 10s. weekly.

FREEBRIDGE LYNN LIBERALITY.

The guardians of Freebridge Lynn recently proclaimed to the world by advertisement, that they would proceed on Friday, the 12th inst., to elect a Medical officer to one of their districts (not a small one), at a salary of £28 per annum. On the proposed day of election the Board met, but there were no candidates for the proferred honours. Three Medical men were there, but they declined to accept the wretched stipend, though they expressed their willingness to undertake the duties, if paid for their services. All honour to the Freebridge Lynn Surgeons! we rejoice that they have set so good an example to the Profession at large, and trust that no unworthy member will so far forget the dignity of his calling as to apply for an appointment which, as advertised, is an insult to the Profession, and the acceptance of which would be degrading to any man of fair education. We hear that the guardians think of dividing the district, and offering two smaller appointments, possibly thinking that the £28 was too large a bait for one Medical man! The whole thing is proposed with such cool effrontery that we feel inclined to say with Cicero, "Quousque tandem abutere" *Bumbliana* "patientia nostra . . . vivis; et vivis, non ad deponendam, sed ad confirmandam, audaciam."

OAKUM A SUBSTITUTE FOR LINT.

Mr. H. Pownall has submitted to Colonel Lloyd-Lindsay's Committee a sample of fine-picked oakum, which has been used in some of the London Hospitals as a substitute for lint in dressing wounds. Should the war last for any considerable time, the labours of the unions and prisons may be directed to supplying this store to the armies of the two countries now engaged in hostilities.

FROM ABROAD.—MR. DARWIN AND THE ACADÉMIE DES SCIENCES —THE FRENCH SANITARY PREPARATIONS FOR THE WAR.

The Académie des Sciences has not yet finished its tough debate on the "Candidature Darwin;" for, probably on

account of the present grave position of affairs in France, which overshadows everything, the Section of Zoology demanded that the discussion on the claims of the candidates should be adjourned for three months—a proposition which the Academy at once agreed to. It seems, however, that it is a foregone determination with the majority to keep Mr. Darwin out of the Academy definitively, if possible; for when the minority consented to postpone his claims and vote for Professor Bischoff, providing the majority of the Section would agree to accept him for the other vacancy, this was peremptorily refused. We feel, however, persuaded, after the prolonged exposition of Mr. Darwin's claims which this unprecedented opposition has given rise to, when the Academy itself comes to vote upon the matter it will show itself superior to the intolerant and ignorant prejudices which have thus far prevailed. In the meantime, the number of the *Revue des Cours* (which excellent journal, we are sorry to learn, is likely to come to a temporary standstill during the war) for August 13 contains a full report of Professor Milne-Edwards's demonstrative speech in favour of Mr. Darwin's claims.

Even those who were well aware of the rotten state of the commissariat and *intendance* of the French army could scarcely be prepared for a breakdown at the very commencement of a campaign spontaneously entered upon, and with bases of supplies as yet uninterfered with. Truly the French soldier is to be pitied, if ever man was. Fighting valiantly and enduring nobly, he finds himself going into action after prolonged fasting, or already having been put on diminished rations; and too well knows that in case of wounds and injuries the surgical *personnel* provided for his aid is grievously deficient in amount. It is true that some aid will be forthcoming by volunteer agency, but as compared with what will be wanted, this is indeed trifling. It has also excited much surprise that it has been determined to place all the aid arising through volunteer committees under the control of the *intendant general*.

"We do not hesitate to declare," says the editor of the *Gazette Médicale*, "that this resolution is deeply to be regretted. In place of restricting the attributions of the *intendance militaire*, these have been enlarged. This is to oppose the logic of facts, and to prevent aspirations and tendencies. It is to compromise the success of an enterprise for which mere independence was demanded as the reward of devotion and patriotism, and consequently it is entirely opposed to the interests of the sick and wounded."

There is no want of disposition of civil practitioners to aid in the care of the wounded, but all at present seems in a state of uncertainty, with absence of cohesive arrangements. As in military matters, so as regards the wounded, the Prussian organisation seems infinitely superior; for through it all civil practitioners willing to aid at once find their appropriate places previously designated, while the transport of the wounded is most ably managed, not only with respect to their easy carriage, but their wide diffusion, so as to utilise helping hands and impede agglomerations. With respect to the neutral ambulances, something more distinctive will have to be done if it is true, as has been stated, that one or more were fired into—of course, accidentally—at Forbach.

At the last meeting of the Academy of Medicine, M. Jules Guerin took occasion to reiterate his views as to the value of the treatment of wounds by occlusion, and terminated his address by an offer to establish an ambulance with twenty beds, for the purpose of exhibiting the immense utility of his apparatus.

Effects of Godfrey's Cordial.—An inquest was held on Tuesday last, at Nottingham, on a child five months old, who, having suffered from diarrhœa, had "Godfrey's Cordial" administered to it by its mother. The child succumbed, and a post-mortem examination showed that death had been accelerated by opiates. A verdict in accordance was given, and the mother was reprimanded by the coroner, for her conduct in administering the "remedy."

BRITISH MEDICAL ASSOCIATION.

THE

THIRTY-EIGHTH ANNUAL MEETING, AT NEWCASTLE-ON-TYNE,

August 9, 1870, and following days.

(*From our Special Correspondent.*)

(*Continued from page* 195.)

The meeting just concluded has proved to be one of the most agreeable ever held. Like its immediate predecessors at Dublin, Oxford, and Leeds, it has had peculiar and distinctive features. It appears as if the impetus given at Dublin to the social and convivial element had rather gained than lost in energy. Certainly, nothing could have excelled the heartiness with which our northern brethren entertained their guests, and the bountiful provision made for visitors proved how earnestly they were bent upon showing hospitality to everybody who came within the influence of their good nature. The grandest of the festivities was undoubtedly the dinner given by Sir William Armstrong to the whole Association. It is difficult to speak in ordinary language of this noble entertainment, the spontaneous offering to our Profession of one of the ablest and best of men this realm can boast—a man of whom the North is, and well may be, justly proud. But we must take the events in chronological order, or we may find it difficult to convey to our readers a notion of the pleasures, social and scientific, which kept our senses in a whirl during the time of the meeting.

During the meeting the old town of Newcastle wore a holiday aspect. The royal standard floated from the keep of the ancient castle, which, in its pristine days, gave a name to the town which grew up around it. Merrily rang the bells of St. Nicholas, a church which boasts the tomb of Akenside and many other great Tynesiders. The townspeople, especially the younger portion, curiously scanned the visitors. Whether their remarks were favourable or otherwise few could determine (we think, from their good-tempered looks, they were the former), for they were uttered in an unknown tongue, which sounded more like Scandinavian than English, so peculiar is the Northumbrian dialect. The pronunciation of the letters *a* and *r* is very singular. The former is sounded much like *a* in hallowed. How the latter is pronounced we cannot divine; it is *sui generis*. These people are, on the whole, a fine and handsome race. There were not wanting at the President's *soirée* instances of striking beauty. The physique is mainly of the Scandinavian type.

We have already given an account of the doings of Tuesday. With Wednesday morning commenced the first of a series of entertainments, which gave a peculiarly pleasant character to this meeting. The Sheriff of Newcastle, Dr. Gregson, a member of our own Profession, gave a handsome breakfast to the Association in the New Town-hall. Upwards of 300 gentlemen were present. The only speech made was that of the host, who, in welcoming his guests, said that the town was proud that the choice of President of the Association had fallen upon one of its most distinguished Physicians. He hoped that this, like previous meetings, would result in benefiting suffering humanity, and in particular that the town of Newcastle might reap the first fruits of the sanitary labours of the Association.

From the Sheriff's breakfast we adjourned to the second general meeting, when Mr. John Whipple, F.R.C.S., Consulting-Surgeon to the Plymouth Infirmary, was chosen President-elect. It was also determined that the next annual meeting of the Association should be held at Plymouth. Sir W. Armstrong was elected an honorary member by acclamation. The following gentlemen were elected members of the Committee of Council:—Mr. Clayton, Dr. Sibson, Mr. Swain, Mr. T. Heckstall Smith, Dr. Littleton, Mr. Wheelhouse, Dr. A. T. Waters, Mr. A. Baker, Mr. Southam, and Dr. Wilkinson. The business of sections then commenced. Dr. Embleton, in opening the Medical Section, made some judicious remarks. He claimed for Newcastle or its environs a host of worthies, among whom were the following Physicians:—Akenside, the poet, Armstrong, Addison, and others. He said that the par-

ticular application of the sciences and arts to life was the chief characteristic of this district. We give elsewhere abstracts of the more important papers read in this and other sections. Dr. Rumsey's introductory remarks on opening the Public Health Section we print *in extenso*.

Dr. Andrew Clark in commencing the business of the physiological section made some valuable remarks, of which we give an abstract. He proceeded to discourse on the nature of the science of physiology, and its relative value to other sciences in the Medical Profession. He said it was the business of Medicine to consider health as well as disease, and this consideration involved the regulation of physical growth and development by means of food, exercise, air, and the like in the first place; the regulation of mental growth and development by means of education in its literal and highest sense in the second place; and the conservation of health and energy, prevention of disease by personal hygieue, in the third place; and in the fourth place, not merely physical and mental development as it now existed, but that advance of the physical, mental, and moral development of which he believed man to be susceptible through the influence of agencies for ever at work, and capable of control. As no physiological law could be broken without payment of the penalty of its violation, they were quite prepared to find that the percentage of sickness and mortality between the ages of twelve and twenty was excessive, and that a large number of men of middle age were habitual valetudinarians, not by necessity, but by the commission of petty avoidable violations of physiological laws. It was the teaching of sound physiology to say that if they wished their young men to grow up strong and healthy they should increase their supplies of food, and if they wished their men of middle age to spend the afternoon and evening of life in comfort, and with a free use of their various faculties, they should considerably lessen the amount of food which they now consumed. Physiology taught that the supply of food should be proportioned to, and should not much exceed, the waste of the body through vital and voluntary work, and that the amount of alcoholic stimulants which could be regularly taken with benefit and impunity, though varying with the individuals, was always small, and should be as little as possible. (Applause.)

Professor Bennett, of Edinburgh, said that all would join with him in thanking their president for the very eloquent and learned address he had just delivered to them. He complained of the poor attendance, and hinted at the advisability of doing away with the section in future.

Dr. John Couper, of London, seconded the vote of thanks, which was carried by acclamation.

Dr. John Couper, of London, read a paper "On the Diagnosis of Astigmatism by the Ophthalmoscope."

Dr. John Milner Fothergill, of Leeds Dispensary, read a paper "On the Preservative Agency of Lowered Vitality."

A discussion took place on the contents of the paper, Professor Bennett, the President, Dr. Hayden, and Dr. Wiltshire taking part in it.

Dr. John A. Bolton, of Leicester, read a paper "On the Naked Man and his Photograph, *in re* the Turkish Bath," in which he summarised the classes of cases in which he had observed decisive and speedy relief during ten years' experience of Turkish bath treatment. He said he could not regard David Urquhart but as one of the greatest benefactors to his country of the present age for having reintroduced into this land the bath that our forefathers used two thousand years ago. As a therapeutic he felt convinced that the balneum Turcicum, properly constructed, would be a valuable addition to the British Pharmacopœia.

A discussion on the paper took place, Professor Bennett, Dr. Tessier, and the President taking part in it.

The section was then adjourned till Friday morning.

Drs. Barnes and Laycock, in opening their respective sections, also made some excellent observations, the former pointing out the importance of obstetrics as bringing into activity many of the interesting diseases which engaged general pathologists.

The great event of the meeting took place this evening. Sir W. Armstrong entertained the members of the Association, to the number of about 300, at dinner in his magnificent new banquetting hall, which is situate in the beautiful grounds of his residence, Jesmond Dene. The Mayor and Sheriff of Newcastle, the vicar of the parish, the colonel of the 98th Regiment now stationed at Newcastle, and other gentlemen, were invited to meet the Association.

All along the road leading to Jesmond Dene were numbers of residents who gave a smiling welcome to the passing Doctors. On arriving at the banquetting hall, the visitors were introduced to Sir W. Armstrong by Dr. Philipson. The dinner was a magnificent one. Two noble barons of beef were carried in in some state by men cooks dressed in white. These graud dishes were received with a round of cheers, which the subsequent acquaintance of them proved they richly merited. Before and during dinner a selection of music was played upon the organ, which is placed in a gallery in what may be called one of the transepts of the building. In this gallery were Lady Armstrong and some friends, who graced the banquet by their presence. Very pleasant was the view from the open windows. Clouds of rich foliage everywhere greeted the eye. It seemed as if we had been suddenly let down into a beautiful valley where alone the genius of pleasure held sway.

The pleasures of Sir William's hospitable table having been thoroughly enjoyed, the visitors returned to Newcastle to attend the President's Soirée, which the local papers speak of as one of the most brilliant ever held in the town. Music and flowers, and a variety of objects of beauty and interest, animate and inanimate, so beguiled the time that the end came all too soon.

Thursday was another brilliant day in every sense, and here we may say that a week of southern sunshine appeared to have specially favoured the north to the great delight of the residents, and to the comfort and advantage of their visitors. The charming weather doubtless contributed greatly to the enjoyment of the gathering.

A temperance breakfast (handsome and substantial) was given by the President of the Temperance League to about 100 gentlemen. Mr. Samuel Bowly made an excellent and temperate speech, and invited the Doctors to give their views upon the subject of alcoholic drinks. The expression of opinion elicited was just that which might have been expected of intelligent Medical men; the utmost moderation was counselled, and excess was strongly condemned, but the fair and legitimate use of wine, etc., was distinctly upheld.

After the sectional meetings, which were but thinly attended, a large party went by steamboat from Newcastle Quay to Tynemouth, where, under the guidance of Dr. Philipson and Dr. Charlton, they visited the ruins of Tynemouth Priory. Dr. Philipson read a short account of the place, and Dr. Charlton, who is an accomplished archæologist, pointed out the more remarkable and interesting features of the building. There is a quaint old chapel at the east end of the Priory, which, thanks to Dr. Charlton and others, has been rescued from oblivion and perhaps something worse, for, until lately, it was used as a powder magazine! This little chapel is in an excellent state of preservation; its newly diapered ceiling of gold stars on a blue ground gives it an air of beauty which is very charming. Over the east window of the Priory is a curiously beautiful pointed oral window, a feature of great rarity in ecclesiastical buildings.

But time pressed, and although many lingered to look at the Armstrong guns which on the sea below were firing off charges which might have been taken for a salute, if, indeed, such were not the case, we were obliged to hasten to the station, where a special train was ready to carry us to the Prudhoe Memorial Convalescent Home at Whitby. This handsome building was erected at a cost of £20,000 to the memory of Algernon, Duke of Northumberland, commonly called the "good." The visit to this institution was made on the invitation of Dr. Philipson, who, as the Vicar of Whitby subsequently said, might almost be called its founder, for to his kindness of heart and energy the institution undoubtedly owes its existence. Dr. Philipson conducted the party over the building, and in the hall he read a short account of it. The large sum it cost was raised by public subscription, and it speaks well not only for the good Duke, but also for the liberality of the people of Northumberland, and for the energy, ability, and devotion of Dr. Philipson. After inspecting the building, which is admirably adapted for convalescents who require sea air and quietude, we assembled in the dining-hall, where a very elegant luncheon was served.

Nothing could have been more charming. Champagne and other choice wines, fruits, flowers, and delicacies loaded the tables. Our host, Dr. Philipson, presided, and was supported by the President of the Association and Mr. Charlton, the sheriff, the vicar of Whitby, and others. After the usual toasts came that of the health of Dr. Philipson, who met with a reception which must have gladdened his heart. The vicar of the parish, as already mentioned, spoke in terms of high admiration of the good work Dr. Philipson had done in connexion with an institution of so much value to the poor of Newcastle and the district. Never did any one more thoroughly deserve the esteem and regard of his fellow-men than Dr.

Philipson. He is the very personification of all that is courteous, kind, and considerate, and we may well predict for one so able and accomplished a brilliant future.

Downey, the excellent photographer of Newcastle, was in attendance to photograph the Association, which was taken in a group at the entrance of the building.

After this pleasant jaunt, once more we speeded towards Newcastle again by special train, and then came the dinner of the Association in the new Town-hall. This was a very pleasant repast, and, although Dr. Philipson's luncheon had taken the edge off our appetites, was much enjoyed. Very greatly were we entertained by a company of glee-singers, who very sweetly sang some pretty music. The company was greatly diverted by Mr. Wilson, a local artist, who sang some humorous songs in the curious dialect of the place.

While some of us were at Whitby enjoying Dr. Philipson's hospitality, a large party were at Sunderland enjoying that of the Profession in that town, who entertained a party at an elegant luncheon at the Queen's Hotel. This was the special greeting of the Sunderland Doctors to their brethren of the Association who were visiting the north. Arrangements were made for visiting coal pits, the iron ship yards, and Messrs. Hartley's glass works, where many feats of strength were witnessed, which astonished the beholders.

The new Infirmary at Sunderland is a neat and well-contrived building, and is fitted with all the newest improvements. A very pleasant day was spent in Sunderland by those who visited it, and the hospitality of the Profession was thoroughly appreciated.

On Friday morning Mr. Heath delivered an admirable address in Surgery, which was loudly applauded. This morning, too, saw the last of the meetings, the most important of which was the general meeting whereat Dr. Acland moved an amendment to the motion that the report of the Direct Representation Committee of the Association be received and adopted. The report congratulates the Profession on the withdrawal of the Medical Bill, a proceeding which was owing to the energetic action of the Association. Dr. Acland regretted that the Bill had been so strongly opposed, and argued that it should have been accepted as an instalment of Medical Reform. He moved the following as an amendment to the report of the Direct Representation Committee :—

"1. That this meeting learns with regret that the committee of this Association has refused, in the name of the Association, the offer of Mr. Forster, Vice-President of the Privy Council, to grant a committee of the House of Commons at the commencement of the next Session of Parliament to inquire into the question of direct representation. 2. That, in consequence of this refusal, the Government have declined to proceed with the Medical Bill on which Lord de Grey, Lord President of the Privy Council, had bestowed great labour and attention, in connexion with the Council and the executive committee, which contains representatives from England, Scotland, and Ireland. 3. That hereby much valuable time has been lost to the public in the settlement of various important measures affecting Medical education, as well as the hearty co-operation of a Government truly anxious to promote the best interests of every branch of the Medical Profession."

This was supported by Dr. Embleton, Dr. Rumsy, Dr. Paget, and Dr. Stokes, but the amendment was rejected by an overwhelming majority. Votes of thanks to the Mayor and Corporation of Newcastle, to Dr. Charlton, and others were carried by acclamation, and with this and some other formal business the meeting terminated.

But this did not terminate the festivities, for this delightful gathering was fittingly crowned by a meeting at Durham of a varied and most pleasant character. Arriving at Durham by special train, we first attended a meeting of convocation, when the honorary degree of D.C.L. was conferred on Drs. Charlton, Chadwick, Falconar, Sibson, Acland, Paget, and Stokes. They were introduced by Dr. Embleton with appropriate remarks, and the degrees were conferred by the Warden, the very Reverend the Dean of Durham, Dr. Lake, in the most felicitous terms. After this ceremony, and a stroll about the castle and its grounds, we attended a special service in the Cathedral. Great pains were taken to render this service as complete as possible, and success attended the efforts. The musical portion of the service was, like the intonation, perfect. The very Rev. the Dean then gave a sermon as remarkable for its sound and charitable advice and brevity as for the affectionate manner in which in eloquent terms he exhorted all people to work for the common benefit of mankind, thereby glorifying God.

From the cathedral to the fine hall of the Castle was but a short step, and here the warden and senate entertained the Association at a collation. The Bishop of Durham and other dignitaries of the Church were present. Very kind and gracious were the words of the Bishop in responding to the old toast of Church and State, which had been given in an admirable manner by the very Rev. the Warden. We would that we could reproduce the excellent and common sense remarks that the very Rev. the Dean made on this occasion. Surely his speech was golden; this at least was the opinion of all who heard him, whatever their creed or religious views.

Even with this the festivities of the week did not end, for Drs. Wilson and Fenwick, of Alnwick, invited the Association to a luncheon at Alnwick, and the Duke of Northumberland threw open his noble castle to the visitors.

Well may the Northerners be proud of the way in which they have entertained the Association, and well may the Association be proud of such members. The recollection of this week will long live in the memory of those who had the happiness to share in its pleasures.

The annual museum and exhibition was an excellent and very successful one. Judging from the large numbers who visited it, it must be one of the most attractive features. Under the superintendence of Dr. Page, of Newcastle, a large and miscellaneous collection was displayed, consisting of new instruments and appliances in Medicine and Surgery, new drugs and preparations, both English and foreign Medical works, pathological preparations, photographs, drawings, casts, models of pathological specimens, models of new inventions relating to public health, and new preparations of food. Under the heading of drawings, photographs, etc., the principal exhibitors are Mr. Phillipson, Mr. W. Spence Watson, Dr. Thos. H. Bott, Mr. H. K. Lewis, Mr. Jonathan Hutchinson, Mr. Anthony Bell, and Mr. Jeaffreson. Most of the above gentlemen also contribute several specimens of pathological preparations. The two next classes into which the museum is divided, consisting of new drugs and chemicals, preparation of food, and instruments, appear to excite most attention amongst the visitors. Messrs. F. C. Calvert and Co. exhibit specimens of carbolic acid preparations; Messrs. Orlando Jones and Co., of London, show samples of bread and biscuits made from Messrs. Chapman and Co.'s patent entire wheat flour, the nutritive qualities of which are highly extolled. This flour is said to differ from that in ordinary use in affording more gluten, or flesh-forming material, and in containing twice as much phosphates, or bone-forming material. M. Carl Möller, Newcastle, and Messrs. George W. Fox and Co., have samples of cod-liver oil, while Messrs. F. Newberry and Sons, Messrs. J. Robins and Co., Messrs. Hopkin and Williams, Messrs. Savoy and Moore, and Mr. Henry Brady, display new and rare chemicals and drugs, and the establishment of Messrs. R. Ellis and Son is represented by samples of aerated and mineral waters. Amongst the principal exhibitors of instruments are Dr. Arthur Ransome, Mr. Waterhouse, Mr. William Miller, Mr. W. A. I'Anson, jun., Messrs. Krohne and Seseman, Mr. Lawson Tait, the Medical Board of Newcastle Infirmary, Mr. T. Anandale, Messrs. Arnold and Sons, Dr. Tindale Robertson, Dr.. Ellis, Mr. W. Spencer Watson, Mr. Walter Whitehead, Messrs. Mayer and Meltzer, Mr. Greweock, Messrs. Proctor and Son, Messrs. Harvey and Reynolds, Messrs. J. and W. Wood, Mr. Russell, Mr. Jeafferson, Mr. H. B. Brady, and Mr. P. Hincks Bird.

PUBLIC MEDICINE SECTION.

INTRODUCTORY REMARKS

By the President, W. H. Rumsey, M.D.,
Member of the General Medical Council.

Gentlemen,—Now, for the third time, this Association has recognised "State Medicine" as a subject for separate treatment in a special department of our annual Congress.

When, at the meeting in Dublin, I suggested the formation of this Section, our leaders at once admitted the propriety of such an addition to the usual scheme. Accordingly, at the following meeting in Oxford, Mr. Simon, and last year in Leeds, Dr. Farr, occupied this chair, to the great furtherance of the cause we here assemble to promote.

At the kind request of our President, I accepted the honour now conferred on me—not, indeed, without misgivings as to my fitness for the post, yet anxious to do what I could to aid your deliberations, and conscious that I should be supported by many able fellow-workers.

Without waste of words, I proceed to our business—the public relations of Medicine.

The State, even in this country, has availed itself of Medical knowledge and skill in many ways; not, however, until laws

had been enacted and Royal Charters granted—all since the fifteenth century—for the purpose of incorporating the several orders of the Profession in the three divisions of the kingdom; thus improving the *status* and raising the qualifications of each. In 1858, for the first time, the State began to provide for the more uniform education of the whole Profession, and for its complete registration; and now, at last, Parliament has been asked to provide for a single State Licence, which may supersede the licences of the several corporate bodies, whose diplomas have been permitted so long to perplex the Profession and mystify the people.

But the State has for some time recognised the Profession as a whole by making use of it, through public authorities, for public purposes. Thus many of us are occupied in an organised system for the Medical relief and sanitary care of the destitute classes in districts and workhouses. To us is officially committed the health and sickness of classes still more helpless—the inmates of asylums and of prisons. Even the Hospitals and dispensaries of this kingdom are to some extent employed and protected by the State; in Ireland they are entirely under public control. The Government also provides for the Medical requirements of certain public bodies, the police, some departments of the civil service, and the labourers in public works.

Above all, the State, through its war departments, secures, under exact regulations, the due examination of those entrusted with the Medical charge of sailors and soldiers; thus acknowledging that the wisdom of the sons of Machaon and Podalirius avails more than many thousands of combatants in the bloody conflicts of a yet uncivilised, unchristianised humanity. It was in this department of the public service that the earliest, and (next to those of Howard, the Prison Reformer), the most signal efforts of preventive Medicine were made. It was under our Pringles, our Linds, and our Blanes that the foundations of a scientific hygiene were laid; and here still it is that important sanitary experiments are being constantly made, which may ultimately be extended for the benefit of the whole population.

By Medical agency, again, the State protects the children and youth of the working classes in factories, workshops, and mines, where the keenly-contested race between labour and capital requires continual and vigilant supervision.

It is men, medically educated, who have to determine, in many cases, the capability of persons to fulfil civil duties, social and family responsibilities, and labour contracts.

In the administration of justice, it is the Physician or Surgeon who has to ascertain and report facts, which can be discovered and described by him alone, and to deliver opinions, which he only is supposed to be competent to form, for the furtherance of right, the redress of wrong, and the detection of crime.

All these matters show the reality and the existence of State Medicine. It has *not* to be formed—it has only to be reformed. What is now done imperfectly, irregularly, distractedly, may be done normally and efficiently. To reduce this chaos into order is a work in which we may heartily co-operate with the Government and Legislature of the country.

To some, no doubt, the necessary reforms will seem objectionable innovations. Every movement of the kind in this country is said to pass through three stages—that of ridicule, that of discussion, that of adoption. State Medicine has probably passed the first of these stages, and has gained strength in the encounter. We are now happily *discussing the methods* of its better organisation. It may yet be a work of years to complete the machine, and a still longer process to regulate its action.

I recollect a party of earnest men meeting in January, 1853, at the late Dr. Marshall Hall's. Sir Ranald Martin was a moving spirit on that occasion. Mr. Pollock acted as our secretary. Here, in this prospectus of the Society of State Medicine, is the result of the deliberations of that meeting. We received no support either from the Profession or the public. Excellent as were our objects, and well considered our scheme of inquiry, the subject was too novel—perhaps, I may say, too high—for popular approval at that time.

In promoting the cultivation of State Medicine and its proper application to the public service, we are, in fact, building upon the physical sciences as the foundation of our work, just as Medicine in general began to comprehend them during the revival of learning in the middle ages. The nascent universities then claimed for Medicine a wider and more philosophical meaning than that of the healing art, and a place under physics. It was long after the fall of the Roman Empire that the higher order of Medical Practitioners became, and were first called, *Physicians*. When Pliny the Elder wrote of *Empedocles Physicus*, he did not mean *Medicus*. The epithet "Physicus" then denoted a follower and observer of nature. The words "Physiker" in Germany, and "Physician" in England, do not appear, I think, until the 13th century;(a) and they are perfectly distinct in original meaning from the Greek Ἰατρός and the Latin *Medicus*. Nor do I know that any other nation has employed this designation of a Professor of physics to mean a healer of the sick.(b)

The "Kreis-Physikus" of Germany, I hardly need say, is the type of the State Medical officer, whom we are endeavouring to establish in England.

Here, however, not only did the word Physician come to mean simply a therapeutist, but a further and still more curious perversion of *φύσις* took place when the word "physic" was used for any nauseous medicament, of which sometimes the composition, sometimes the administration, could not be reconciled with any known laws of physical science.

In opening the proceedings of this Section, I may be expected to notice a few of the principal events of the past year bearing on our subject.

I cannot wholly exclude from our consideration the most exciting Professional topic of the day—the Medical Acts Amendment Bill—which has just been withdrawn by Government, in consequence of a widely-spread Medical opposition. Preferring, as I should, a single examining board for the United Kingdom to three separate concentrations of existing authorities, and admitting fully the incompleteness of this measure, I acknowledge it to be correct in principle, simple in form, statesmanlike in design, and capable of effecting an enormous improvement in the frame-work of the Profession. If the rejection of this Bill should cause Lord de Grey and Mr. Forster to abandon the conduct of Medical reform, our loss will be great.

Of the Medical Council, which is the connecting link between the Profession and the State, it is not meet that I should say much. The work that it has accomplished during the last twelve years will be judged of more fairly and accurately by a succeeding generation than it is by the present. The complaint that the Council does not directly represent the whole Medical Profession may or may not be founded in reason. There are no facts to show that a purely representative body would have done more. The future may, perhaps, supply an answer.

I must, however, protest against a double fallacy which pervades this controversy—viz., that the Council is a governing body, and therefore that, like some other governing bodies in this country, it must be elected by those it governs. Gentlemen, the Council is not a governing body: it is merely an administrative body. It governs none of us. We act as we please, and much as we acted before the Council existed. Neither are governing bodies, still less executive bodies, necessarily or indeed generally elected by popular constituencies. The real desideratum is, I suppose, to have a working body—a body which will do the business committed to it by the Legislature with as little circumlocution as possible. It may be very desirable that every Medical man should be represented in some deliberative assembly. Every branch of the Profession, for instance, ought to be represented in its own college. But, from my experience as a member of the Medical Council, I should say that an executive body, elected, even in part, by a majority of the practitioners whom it has registered, and therefore liable to be swayed by every breeze of Medical politics or feelings, would be likely to prove a greater failure than the present. Moreover, if the Medical Council is to be made, as it doubtless might well be made, more accurately than at present, representative of the classes and institutions for whom it is appointed to act—what may the public have to say on the matter? If Medical Practitioners are to be directly represented on the Council, may not Parliament require that the various public bodies and authorities which employ us, shall also be directly represented by the addition of eminent laymen to the Council? The leaders of this great association have pronounced, definitely and energetically, against the Government Bill as it left the House of Lords, not only because of the absence of any provision for direct representation, but also because it would not prevent the Universities from granting their ancient degrees in medicine to any but those licensed to practise by the proposed Medical Examining Board.

Now, if highly educated men are content not to be converted

(a) Chaucer's "Doctour of Physike" must have been a graduate of some university.

(b) When the late Professor Whewell said, "Medicine in its original and comprehensive sense, as one of the great divisions of human culture, must be considered as taking in the whole of physical science," he probably referred to the revival rather than to the origin of Medicine.

into practitioners, if they consent to forego all the material advantages of registration, are they not to be allowed to take a degree in medicine without also obtaining a State licence? I regret much to differ on this point with many good friends; but, in my opinion, to compel every member of a college, still more every graduate of an university, to obtain a State licence, whether he requires it or not, would be simply an act of tyranny. The State may reasonably refuse all legal rights to the mere graduate, who may remain legally incompetent to perform any Medical act, to sign any certificate which would be accepted in a court of law or by any public authority; powerless also to claim any professional privilege or exemption. But all this does not satisfy our theoretical reformer. The candidate for a degree must, *nolens volens*, be driven into the practising body through one portal.

It appears to me that, on grounds of abstract justice, the State has no more right to prevent the university graduate from taking his place among other unregistered persons, than it has to require a government licence for admission into the Royal Society or the Athenæum Club.

Was it not a sufficiently sweeping change that a single State licence was to be substituted for a medley of legalised portals into the Profession? Perhaps the extent of this concession on the part of the universities and corporations has hardly been appreciated. It is quite another question whether those learned bodies ought ever to have been permitted to employ their certificates of qualification—their degrees of bachelor and doctor—as licences to practise. The licence was originally the act of the State, as all other licences are. The Act 3, Hen. VIII., constituted a learned body to examine, approve, and admit Physicians and Surgeons some years before a charter was granted to any Medical college. When the function of licensing, that is, of granting a public and legal permission to practise, was delegated to the professional corporations, it was doubtless done for a consideration. From that time, the qualification, at least in England, has meant the licence; the licence has supposed the qualification. Two essentially different authorisations were united in one document.

Now we were ready to change all this, and I believe rightly. The State was to resume its inherent and original powers. The State examination was to precede the State licence. Here, then, as I said, we were about to enter on a new order of things.

But this examination would necessarily be for a minimum qualification. The licence could only declare the least amount of knowledge with which the licentiate might safely be turned loose on the public. The State could go no farther, unless it should provide higher qualifications for various branches of the Civil Medical Service, or declare that, for public employment, a man shall possess a particular university degree, or a higher qualification granted by some Medical college.

One feature of recent discussions is, in my opinion, unfortunately too clear. However earnest may have been the claims or forcible the appeals in behalf of Professional interests, or corporate privileges, or university rights, no notice has been taken of the fact that this Medical Bill entirely omitted to provide for the exercise of public medicine.

When Sir James Graham proposed, now nearly thirty years ago, his Council of Health and Medical Education, he intended to form a body which the Government might safely consult on all questions relating to public hygiene, to the causation and prevention of disease, and to legal medicine. We hear of nothing of the kind now. Hence the question of further qualification for the higher offices of State medicine has been deferred, if not slighted. I have heard of but two excuses for this omission.

The first is, that general regulations for Medical education would be made so comprehensive and so stringent, that every future candidate for the licence, at twenty-one years of age, would have been thoroughly instructed in all departments of Medical knowledge and art(c); even those which outlie the ordinary practice of his Profession, and which he may seldom or never have occasion to utilise in life.

Now I appeal to those around me, men of experience, some of whom, like myself, have grown grey in the battle with disease and mortality, and who may have learned far more after the completion of their student life than during it. I ask whether you think it possible, by the most ingenious scheme of Medical education, by the most refined process of tuition, even by the most artistic coaching, to convert any average student, by the time he reaches his legal majority, into an authority on matters affecting the health and safety of the community, and in medico-legal cases a man fully equipped for all branches of the public service. If this really be possible, why do the authorities of the army and navy require for their Surgeons further study and a crucial examination; one which has hitherto supplied no bad test of the validity of the examinations of the licensing bodies? Do we believe that the proposed examining boards can alter a natural law, can render special and prolonged preparation for the higher walks of the Profession unnecessary, and turn out an order of juvenile if not admirable Crichtons?

But a second excuse has been pleaded for the omission of any provision for a high and special qualification—viz., either that it may be made the subject of a second enactment (on the improbable supposition that Parliament would soon again be troubled with any detail of Medical legislation which might reasonably have been included in a general measure), or that the question may be settled by an administrative act of Government, which might *suâ sponte*, require candidates for public appointments to appear before a Board of Examiners for the Civil Medical Service, or for the army and navy. Much may be said in favour of such a course. Perhaps this might prove the readiest solution of the difficulty. But it is well to recollect that, by such a measure, the dependence of the Civil Medical Service on the State would be made complete. No Medical Council, however reformed, would then exercise the slightest control in the matter; the opinions of the Government advisers for the time being would decide all questions concerning the standard of fitness for every kind of public Medical duty.

To revert to the conditions of admission into the Medical Profession. In striving zealously for the "one portal," as it is called, we cannot forget that membership of a college, or graduation in a university, secures certain objects of high moral importance, which no State licence can secure. To belong to a learned body is, or ought to be, a guarantee of personal respectability and morality. To be expelled from that society is understood to be a declaration that the guarantee has been forfeited. To deprive a mere licentiate, under any future Act, of his legally acquired rights, would, I imagine, be possible only in cases of convicted crime, or infamous conduct; but to strike an unworthy name off the rolls of a college is comparatively a simple proceeding, applicable to a greater number of cases, and ought to be an inevitable consequence of moral or professional delinquency.

A high standard of Medical ethics can never be expected from the mere one-portal system; but the maintenance of that standard is essential to the character of a college. Here, then, is another reason for treating the collegiate qualification as totally distinct from the State licence. The one is esoteric, regulating its internal mysteries and dignities—the other exoteric, determining its public relations. The former is the *sacramentum* of honour and fidelity, the latter a security of civil rights and duties.

When the young Greek was admitted among the sacred *Asclepiadæ*, he pledged himself to a severe canon of ethics, by that wonderful Ὅρκος, which has remained more or less in force during twenty-four centuries, and has formed the basis, or supplied an element, of probably every engagement which has been required, at different times and places, for admission on the rolls of the Faculty.

In taking that oath, the scholar of old declared his loving and filial reverence to the teachers from whom he learned the art—promised gratuitous service, and the like instruction to their descendants, equally with his own sons and disciples—vowed to consider before all things the benefit of the sick who might seek his aid—repudiated all immoral practices—refused to work any abomination, however solicited—dedicated himself to purity and holiness of life—engaged to refrain honourably from undertaking a separate branch of the art—and pledged himself to inviolable secrecy as to matters of private life which might come under his observation in practice.

This oath of the Coan sage may perhaps be called a piece of mere heathen morality. Then, at all events, our standard should be a higher one. Is it so? Wider and deeper thought may remind us that all true morality has but one source—that "every good gift and every perfect gift is from above, and cometh down from the Father of Lights."

How can we profit by this noble Hippocratic legacy? It cannot, I think, be made a condition of a State licence; but it might be required for the diploma of every Medical college. In fact, an oath to demean himself honourably in the practice of his Profession, and to maintain the respectability of his college, is still administered to candidates for admission into some of our collegiate bodies; and to the honour of the College of Physicians of London, I may say, that body has laid down

(c) A complete qualification to practise every department of Medicine and Surgery. See the recent statement of the Scottish colleges.

some excellent rules of conduct for its Fellows and Members. I am not aware that any other body provides with equal minuteness against breaches of Professional code.

We are often tempted, perhaps unfairly, to apply the term "quackery" to the practice of Medical novelties or heresies. Now, I would suggest that the utmost freedom of judgment and action in the selection of means for the prevention or relief of sickness may be allowed by the authorities, and may be enjoyed by members of the Profession without incurring an unmerited or degrading nickname. There are quacks, as regards their conduct, who may be most orthodox as regards their theories of medicine. On the other hand, there are learned Medical sectarians, to my knowledge, who, in the exercise of their calling, are honourable and upright.

That real quackery which is to be found even among the ranks of the "regulars," and which consists in loud pretension, unwarrantable assumption, pomp of equipage, and extortion, may be checked, if not repressed, by two methods. The one is in our own power, but it requires the cordial assent of the authorities and members of the Profession to some definite code of ethics; the other depends on the view taken by the Government and Legislature of our relations with the State.

A very instructive illustration of the latter method of remedying abuses is afforded by the history of Medical practice in the Roman empire. When, under the first Cæsars, the ancient virtue of that great people was so rapidly decaying that society became morally putrescent, then also flourished the most shameless quackery. In vain did Juvenal and Martial lash it; in vain did Pliny the elder expose it with humorous yet indignant simplicity. No mediæval or modern quack—no Paracelsus, no Loutherbourg, no St. John Long—has ever exceeded the audacity, the imposture, and the venality of the leading Roman Practitioners—such, for instance, as Thessalus or Charmis. No mountebank or charioteer of three horses, said Pliny, paraded the streets with a more numerous retinue than the astrological Doctor Crinas, from Marseilles. Even the more respectable *clinici*, as Symmachus, were followed by troops of pupils to the bedside, not always, as Martial(d) tells us, to the benefit of the patient.

Then, according to Pliny, their miserable conflicts around the sick; their professional use of the Greek tongue to enhance their authority among the vulgar; their crafty dealings in the matter of wills; their poisonings for reward; their rapacious marketing with impending mortality; their securities for payment taken from the dying—all showed how completely the religion of the Asclepiadæ and the philosophy of the Greeks had disappeared from the fashionable Medicine of that day.

In fact, the Profession in Rome and its dependencies had no means of internal purification; so the State was compelled to step in and to organise the faculty, for the public safety. Colleges of "*Archiatri Populares*" were established in all the great cities of the empire—consisting of five, seven, ten, and in Rome of fourteen members. These provided the poor with all the care and succour which the art could then afford. The civil law interfered, not only to secure them fair salaries for their public duties, and reasonable remuneration for their private services, but to prevent that horrible corruption and extortion which Pliny so mercilessly laid bare.

The true principle of Professional duty, then sanctioned and enforced by the law, showed the advance of a truer and deeper element of civilisation. The statute of Valentinian and Valens thus refers to the Archiatri, whom it confirmed and regulated:—

"*Qui scientes annonaria sibi commoda a populi commodis, honestè obsequi tenuioribus malint quàm turpiter servire divitibus. Quos etiam ea patimur accipere quæ sani afferunt pro obsequiis, non ea quæ periclitantes pro salute promittunt.*"(e)

Why do I recall these remarkable facts, but to illustrate my proposition that a low standard of Professional morality may be elevated, not only by the Profession itself, but by the government of the country, which may legitimately interfere for the public protection?

It is the more important that the relations of Medical ethics and State Medicine should be fully recognised; for it is in the matter of Hospital and workhouse and sanitary appointments, and of evidence in courts of law, that breaches of high Professional morality are, I am loth to say, most apparent.

Have none of us witnessed the humiliating spectacle of a brother Practitioner pandering to the greeds of vestry patronage, or to local-board jobbery, or to Hospital cliquery? Have not appointments been canvassed for while the holder was *in articulo mortis*? Has the worth of a rival candidate never been indirectly depreciated, or damned with faint praise? Have the blandishments of the fair sex never been enlisted in behalf of the domestic favourite? Did no aspirant for office ever rush into authorship for the sake of a reputation not based on research or experience?

Again, does the Medical witness, to quote from Dr. Stokes (f) always "go into court untinged by partisanship" with the plaintiff, with the defendant, with himself? Is he there to give his opinion, careless of how it may tell?

Whether from a defect of conscientiousness, or from the waverings of an unsettled judgment, or from the want of a strict rule of preparation,—have not statements been made under the pressure of examination which, on calm reflection, and perhaps after the delivery of an utterly erroneous verdict, the witness silently and bitterly regrets for the rest of his life?

Here it is for the Legislature or the courts to interpose and protect public morality, to help the weak, to silence the unscrupulous and to confirm the true.

As Mr. Simon replied to our State Medicine Committee:—"I think it immeasurably to be desired, not exclusively as regards our Profession, but as regards all skilled opinional evidence required in aid of justice and legislation, that the system of giving such evidence on one-sided retainers—a system which has even led to such evidence being publicly stigmatised as "traffic testimony"—should, as far as practicable, be exchanged for some well-considered system of impartial reference."

Among other events of the year which bear on the work of our section, I may notice a remarkable series of observations which Professor Mantegazza has reported to the Institute of Lombardy. The experiments were not made under the dull sky of Britain, but in sunny Italy. We have all heard how Acron of Agrigentum, and other followers of Empedocles the physicist, employed aromatic and balsamic herbs as preventives of pestilence, often burning them, sometimes planting them round their cities. So also Herodian records (g) that in the plague which devastated Italy in the second century—the counsel of the Doctors having been taken—strangers crowding into Rome were directed to retreat to Laurentum, now San Lorenzo, that by a cooler atmosphere, and by the odour of laurel, they might escape the danger of infection. Some of us may have smiled at the latter part of the advice. Could the scent of herbs and flowers do more than conceal the presence of infectious matter in the air? Mantegazza now replies in the affirmative. He says that in the oxidation of the essences of odoriferous plants a large quantity of ozone is evolved, at least as much as is produced by phosphorus or electricity; also, that in the greater number of these cases, ozone is developed only by the direct rays of the sun, although in others the action, commencing in solar light, is found to continue in darkness. Some details of these interesting experiments have appeared in the scientific periodicals, so I need only mention, that among the plants which largely develope ozone on exposure to the rays of the sun, are cherry-laurel, clove, and lavender; among flowers, the narcissus, hyacinth, and mignonette; and among perfumes, similarly exposed, eau-de-Cologne, oil of bergamot, and some aromatic tinctures. Flowers destitute of perfume are said not to produce ozone. The Professor therefore recommends the cultivation of herbs and odorous flowers in marshy districts, and in places infected with animal emanations.

This destruction of the demon malaria, by a spirit begotten by sunlight, out of flowers—if it be confirmed by subsequent observation—not only explains the good effects of what might seem to have been merely speculative or empirical advice, but also affords a beautiful confirmation of an ancient myth by modern science. When Apollo the Healer,(h) by his life-inspiring and health-restoring rays, penetrates the loveliest objects in creation, and draws forth from them a mysterious purifier, a mighty but invisible disinfectant, the god of Medicine may be said to administer to a plague-stricken people a most potent remedy concealed in the most grateful and attractive of forms.

I am compelled to turn to a very different subject—the controversies which have deluged and defiled the public press on the prevention of Syphilis.

It is not for me in this chair to pronounce upon the amount of benefit effected by what are called the "Contagious Diseases Acts." I cannot deny that the public recognition of any disease,

(d) Martial?
(e) *Cod. Theod.* lib. xiii. tit. iii. lex 8.

(f) The "Discourse," delivered in November last by Dr. Stokes, I believe to be the most valuable contribution to Medical Ethics of the last decade.
(g) *Langius Io. Florilegium*, Morbus, 1854. Lugduni, 1648.
(h) Ἀπόλλων Ἰητρός.—*Hippoc.*

the direct propagation of which depends on immorality, has a twofold, if not a doubtful, aspect. I may also admit that there may have been some statistical fallacies and pardonable exaggerations on both sides of this hotly contested question.

But I should not satisfy my sense of duty on this occasion were I not to protest against the indecency and violence of language, the shamelessness of unfounded assertion, the perversion of authentic reports, the suppression of facts and the invention of fables, which have characterised the proceedings of a party busily engaged in stirring up many thousands of ignorant and prejudiced persons to petition Parliament for a repeal of those Acts. This fanatical movement has been promoted even by ladies of delicate breeding and high reputation, some of whom, I regret to say, have not shrunk from addressing mixed audiences of men and women on this dirty subject. The uproar has also been instigated and supported by ministers of religion. These are among the saddest signs of the times. The moral evil of the discussion, carried on as it has been, far exceeds that which might possibly have been the effect of an erroneous working of these regulations.

That some abuses should occur in the administration of any corrective law is no wonder, no exception to the general course of human affairs. Some persons, no doubt, have been imprisoned for theft, some hanged for murder, who were as innocent as infants of the crimes for which they suffered. But, happily for the Acts in question, it is a remarkable fact, which I think deserves particular attention, that every allegation of abuse, every charge of cruel indignity to innocent women, which have been so industriously circulated, have turned out, on thorough investigation, to be without foundation. For example, Professor Newman, who took a leading part in the first turbulent attack upon these Acts at the Bristol Congress of the Social Science Association, afterwards narrated, in the public prints, a horrible story, for which, when pressed, he was unable to give the slightest authority, and which turned out to be a pure fabrication. Yet for this he made no public apology. These mendacious and absurd charges have been generally disposed of in the last full, clear, and judicious report prepared by the able and indefatigable Secretary of the Association for promoting these Acts. Perhaps one of the most dishonest attempts of the repeal party was to make people believe that the English regulations are identical with the French; the fact being that the two systems are essentially different on three main points. Here there is no authorised registration of prostitutes, as in France. Here they are in no way licensed to their trade, which is still illegal, and liable to prosecution under existing statutes. No certificate of cure is here placed at their disposal, as in France.

Arguments of some eminent authorities—at least those of Mr. Simon—against the extension of the Acts to the whole civil population, whether valid or not, have been unscrupulously employed by the advocates of the repeal of those Acts—a course which Mr. Simon has deprecated, guarding himself distinctly against any disapproval of such regulations as applied to military and naval stations.

It would indeed be a disgrace to our civilisation if this irrational and discreditable opposition should induce the Legislature to abandon the course it has hitherto so cautiously pursued, or (what would be a public calamity) to repeal the Acts; although I share a very general opinion that they require some amendment and modification before they are extended to the civil population. As followers of a Divine calling, it must surely be our duty, without listening to any pharisaical scruples about interference with the penalty of sin, to support cordially every well-considered measure for the cure of disease and the arrest of contagion. To effect these objects, it may be necessary to isolate the sufferers by every lawful means, for the double purpose of curative treatment and of protection to society. In order to isolate justly and effectually inspection becomes necessary. In particular, from this loathsome and often fatal contamination, it is of paramount importance to guard the innocent and the unborn.

A few words may not be out of place respecting the labours of the Royal Sanitary Commission, which may be said to owe its existence mainly to a movement originated by this Association. The change of ministry in the autumn of 1868 necessitated a reconstruction of this Commission. The loss of Lord Northbrook, as chairman, was a matter of much regret to those who knew his remarkable qualifications for the post; but its arduous duties were happily accepted, and are being very thoroughly performed, by Sir Charles Adderley. As might have been expected, some members of our Profession animadverted on the reduction of the number of Medical Commissioners from seven to five, and certain changes in the objects and limits of the inquiry led, perhaps excusably, to some not very mild expressions of disappointment. But if the scope of inquiry and the methods adopted for obtaining information were not in every respect such as were sought for by the joint committee of this and the Social Science Associations, enough, I think, has been obtained from Government to secure very important results; and alleged deficiencies in the scheme of the Commission may be supplied by a future investigation, for there is no probability of this being the last. Let me express a hope that you will rely on the excellence and reality of the work which is being done by this Commission, containing, as it does, some of the best men in the Profession, some of our most honoured associates. May I also offer a word of caution against impatience under what may appear to be needless delay in the completion of this great work. Believe me, that the various, often very conflicting statements and suggestions on a wide range of topics, which have been made to the Commission, demand the most careful analysis and comparison; and that anything like hasty or incautious conclusion, would impair the value of the forthcoming report. In the absence of any power to conduct local inquiries, or to determine by personal inspection the sanitary condition of the large towns and other districts, it seems desirable that the labours of the Royal Commission should be supplemented by some such returns as were contemplated in 1868 by our Joint Committee; which has, in fact, authorised the printing of a very comprehensive category of questions, due to the untiring energy of Dr. Stewart. Whether these excellent forms may ever be utilised, or whether they are to make their public appearance as wrappers for cheap grocery, may depend partly on the readiness of the organised branches of the British Medical Association, aided by the Social Science Association, to collect the information for which their Joint Committee asks; and partly, again, on the contents of the final report of the Royal Commission. In the first report, recently published, is to be found, as doubtless you are aware, some very important information respecting Newcastle, to which I now refer only for the purpose of expressing my hope, that the Medical gentleman appointed to report on the sickness and health of the poor in this town, will favour us with some further explanation as to their manner of action; for it seems that Newcastle is an almost exceptional instance of cordial co-operation between the various local authorities concerned in the care of public health.

Why should I allude to an event of the past year, an event deplored not less by the Medical Profession than by the public at large? What had Charles Dickens to do with State medicine? I might indeed reply by asking, to what form of physical suffering, to what project of relief or prevention, was he indifferent?

It is, however, a fact to be noted, that he was a fellow-worker with us in not the least important portion of the business of this section. In 1860 he advocated the Public Registration of Sickness; and I cannot do better than remind you of the memorable words with which he concluded a remarkable paper on that subject.(i)

"It is most true that we have never studied, and are still neglecting to study, with any accuracy, the statistics of sickness and health, to which the statistics of death, even if they were perfect, afford no clue. So far as care of the body goes, it concerns a man more to know his risks of the fifty illnesses that may throw him on his back, than the possible date of the one death that must come, and of which the time is to him personally—in spite of libraries full of statistics—utterly unknown and uncertain. We join, therefore, in the demand for a registration of sickness that has not a fatal end, as well as for a more effective registration even of the births and of the causes of deaths themselves. Let us have lists of the killed, and of the wounded too."

In Newcastle, where so much has been effected, with such care and pains, by the Medical Society and Dr. Philipson, it is needless for me to enlarge on the advantage of an official registration of all sickness attended at the public expense. The best methods of obtaining so essential an addition to our knowledge of the extent and causes of disease, will probably be discussed by the Section; and I hope that the Association will adopt such measures on the subject as may aid those who are endeavouring to obtain from the Legislature an organisation of skilled officers of health, to whom would be committed the compilation of the proposed register of sickness in every district. Great as have been the results of voluntary effort in this place—still more remarkable the completeness of these records in Manchester and Salford for the last ten years (thanks to

(i) *All the Year Round*, No. 86. pp. 227, 228.

Dr. Ransome and other earnest workers)—it is, I believe, generally admitted that a national machinery is indispensable to the permanence and universality of the work, and that the fitness and efficiency of that machinery depends on the course which Parliament may take in future sanitary legislation.

The following are abstracts of some of the principal papers read in the various sections:—

Dr. G. H. Philipson read a paper entitled, "Health and Meteorology of Newcastle and Gateshead during the years 1868 and 1869." After a short history of the registration of disease, a series of statistical statements obtained by the collation of the returns were given, of which the following have been taken:—The total of the new cases of disease and injuries occasioned by accident, observed in the public practice of Newcastle, in the year 1868, amounted to 16,059, and in 1869 to 17,084, and in Gateshead, in 1868, to 4665, and in 1869 to 6075. The total of the seizures from diseases dependent upon a morbid condition of the blood, in Newcastle, in 1868, amounted to 3445, and in 1869 to 2540, and in Gateshead, in 1868, to 945, and in 1869 to 1013. The total of the deaths from all cases, in the public practice of Newcastle, in 1868, was 728; and in 1869, 736; and in Gateshead in 1868, 101; and in 1869, 99. After acknowledging the kindness of the contributors and of the Northumberland and Durham Medical Society, under whose fostering care the plan had been developed and carried on, it was stated that the Society had undertaken to defray the expenses of the printing, issuing, and collecting the returns to the end of the present year, but not longer, and that if other means were not forthcoming whereby the expenses could be defrayed it would be obligatory for the registration of disease in Newcastle and Gateshead to be abandoned—a course that would be taken with the utmost reluctance.

The following is an abstract of Dr. Henry Bennet's paper on the climate of Algeria: — The author brought forward important facts deduced from an exploration of Algeria made in the spring of 1869. Algeria is a kind of Switzerland, extending about 400 miles from east to west, from Tunis to Morocco, and about 120 from north to south, from the Mediterranean to the desert of Sahara. This region is entirely occupied by the Mount Atlas, which divides into three ranges running from east to west, the Lesser Atlas, the Middle Atlas, and the Greater Atlas, with connecting buttresses and intervening valleys and large plains. These mountains not attaining an elevation of above 7000 feet, do not reach the line of eternal snow, so there are no glaciers to form large rivers. But they are high enough to precipitate rain and snow in winter from moist air. The constant rarefaction of the atmosphere over the immense desert of Sahara causes, nearly all the year round, a rush of cooler air from the northern quarters—that is from the Mediterranean and the Atlantic. The atmosphere being thus all but constantly charged with moisture, winter and summer, rain and snow fall in abundance during the six months of winter, and heavy dews fall at night, both in winter and in summer. The climate of the mountain regions of Algeria is, therefore, rainy and cold in winter. Algeria being on the sea level is warmer—indeed, warmer than the north Mediterranean shores—but moist and rainy. The average rainfall is 36 inches, the average number of rainy days is 90. The climate of Algiers being thus mild and moist, is not suited to those cases of phthisis that require a dry bracing air, such as is found on the east coast of Spain and on the Genoese Riviera.

Mr. Adams, F.R.C.S., Surgeon to the Orthopædic and Great Northern Hospitals, read the following paper:—After some general observations on true and false, or bony and ligamentous anchylosis, and the relative frequency and rapidity with which these conditions are produced after various forms of disease, the author referred to those cases of bony anchylosis of the hip-joint which called for Surgical interference in consequence of the anchylosis having been allowed to take place, with the limb in a deformed position. The inconveniences arising from bony anchylosis of the hip-joint depend upon the extent and direction to which the limb may be contracted and drawn into a deformed position. In females, when the thigh is flexed and adducted, so that the knee is drawn across the opposite thigh, the orifice of the vagina is often seriously interfered with, so that urination is performed with difficulty, and even a catheter cannot be passed, as occurred in the case recorded by Dr. Sayle; the parts, moreover, were kept in a constant state of excoriation. The author then referred to the various operations which have been proposed and adopted for bony anchylosis of the hip-joint, with deformity, such as Rhea Barton's operation, and also that proposed by Louis Sayre, of New York, which he had performed in two cases. In all these operations it was necessary to make a large external incision, so as to admit of the use either of an ordinary saw or of the chain saw: and, although in three cases recorded the result had been successful, so far as rectification of the deformity was concerned, the possibility of the restoration of motion by the formation of a false joint was not clearly established. The author, therefore, advised that the object should be limited to the rectification of the deformity, and obtaining bony anchylosis, with the limb in a straight position. This he proposed to accomplish by a subcutaneous division of the neck of the thigh-bone within the capsular ligament, using only a tenotomy knife and a very small saw, three-eighths of an inch in width, with one inch and a half cutting edge, at the end of a small shank three inches in length. A case in which he had successfully performed this operation was brought before the meeting, and no inflammation whatever had followed the operation. The author therefore felt justified in comparing this operation of the subcutaneous division of bone —or subcutaneous osteotomy—with the subcutaneous division of tendons. The case in which Mr. Adams performed the operation was one for bony anchylosis of the right hip-joint, with the thigh flexed, and contracted to a right angle with the pelvis, so that the limb was utterly useless. Bony anchylosis, with the limb in a straight position, had been obtained as the result of the operation, and the man is now enabled to walk without the assistance of either a crutch or stick; and the bony consolidation at the seat of operation in the neck of the thigh-bone is such as to enable him to bear the whole weight of the body on the limb which had been operated upon.

A paper, by Mr. Furneaux Jordan, was read on "The Treatment of Enlarged Lymphatic Glands." The numerous modes of treating enlarged glands are remarkable chiefly for their want of success. The method I now propose, if carefully carried out, I have never known to fail. The ordinary enlargement of lymphatic glands is due to inflammatory action. By far the most efficient remedy in inflammation of any organ is counter-irritation, if only it be established in the proper locality, and to a proper extent. A blister will cure bursitis when nothing else will, and inflammation of a bursa does not differ from other inflammations. In enlarged glands, as in abscess, carbuncle, boils, and erysipelas, the best locality for counter-irritation is not over the inflammation, but around it or adjacent to it—in short, in an independent vascular region. In enlarged cervical glands, a large patch of iodine irritation at the back of the neck, which may be prolonged below the glands will certainly prove successful in a short time. A shot bag, as heavy as can be tolerated, should be applied over the glands at intervals during the day, the patient being for this purpose in the horizontal posture. I might cite many cases. One, a representative one, under the care of an impartial and competent observer, will suffice. Dr. Hickinbotham, of Nechells, had under his care a man with enlarged cervical glands, which for three years resisted the careful trial of every known treatment. Dr. Hickinbotham then, adopting my views, established a patch of counter-irritation at the back of the neck. In three weeks all enlargement had disappeared. One of the advantages of counter-irritation is this—it gives certain and immediate relief to pain. The persistent tormenting pain of a carbuncle, for instance, may be instantly relieved by a ring of counter-irritation with its transitory smarting.

Dr. Philipson gave the particulars of a "Case of Biliary Fistula." The woman, aged 31, was a patient in the Newcastle Infirmary, under his care. The fistulous opening was situated at the umbilicus, and had existed for ten months. Eight gallstones, about the size of small hazel-nuts, had been extracted from the sinus. It was considered that the ductus communis choledochus was still pervious, and that in all probability in consequence of gall-stones having become impacted in the biliary passage, the gall-bladder had become widely distended, and from consequent inflammation adherent to the abdominal wall, which had subsequently ulcerated. In contrast, the chief points of a case of fistula of the right pleura, in a boy, aged 17, when in the Newcastle Infirmary, under the care of Dr. Philipson, were given.

The following is an abstract of Dr. Henry Bennet's paper "On the Connection between Inflammatory Conditions of the Uterus and its Displacements." The purport of this paper will be best given in the recapitulation by which the author concludes it:—1. I consider that, under the influence of mechanical doctrines pushed to an extreme, uterine dis-

placements are by many too much studied *per se*, independently of the inflammatory lesions that complicate and often occasion them. 2. That the examinations made to ascertain the existence of inflammatory complications are often not made with sufficient care and minuteness, as evidenced by the fact that I constantly see consultation cases in practice in which inflammatory lesions have been entirely neglected, and the secondary displacements alone treated. 3. That inflammatory lesions are often the principal cause of uterine displacements through the enlargement and increased weight of the uterus, or of a portion of its tissues, which they occasion. 4. That when such inflammatory conditions exist, as a rule they should be treated and cured, and then time given to nature to absorb morbid enlargements before mechanical means of treatment are resorted to.

Dr. E. J. Tilt, read a paper on Uterine Pathology at the Change of Life and after the Menopause. Dr. Tilt was able to confirm the general belief that the change of life is a perilous period for those women who enter it in a state of disease; particularly if they be suffering from any uterine affection. Not only are uterine affections then made worse but they prolong the change and retard cessation. Dr. Tilt also confirmed the belief in the powerful help that the menopause brought in aid to medicine to enable us to cure cases of intractable chronic uterine inflammation and to prevent uterine displacements being any longer a fruitful source of painful symptoms, although the displacements still continued to be almost as great as before the menopause. After reminding his hearers that heteromorphous growths became unusually frequent after cessation, Dr. Tilt sketched the influence of the menopause on those forms of uterine disease which had previously been so frequent; irritation, congestion, inflammation, and ulceration of the womb. He passed in review the diseases that had come under his observation, in the order of their greatest frequency, and gave chronicity as their chief characteristic.

Dr. J. Milner Fothergill read a paper on "The Preservative Agency of Lowered Vitality." He commenced by stating that health consists of a subtle balance of parts, both as to power and function, and then led on to that condition of impaired general health which accompanies irremediable injury or protracted repair in an important organ. He instanced the greater liability to sudden death in heart-disease, where the general health permitted a certain amount of exertion though taxing the heart; the gloomy prognosis associated with the ravenous appetite of the consumptive, no portion of the food being digested; and the importance of a restricted animal-food diet in cases of chronic injury to the kidney. After stating a couple of cases illustrative of the theory, he proceeded to a general summary, and contrasted the treatment of treating maladies by improving the general health, or "levelling up," with the "levelling down" of the system to the state of the implicated organ in irremediable injury or protracted repair. He regarded the maintenance of balance as the thing to be aimed at, as being the condition most favourable to the prolongation of the existence of the organism.

Dr. Campbell Black, of Glasgow, read a paper "On Certain Circumstances which contribute to impede the Progress of Scientific Medicine and Surgery." The author divided his subject into—1st. Circumstances that refer to the Practitioner of Medicine; 2nd. Circumstances that refer to the public; and 3rd. Circumstances that refer to the peculiarity of the pursuit. Under the first division of his subject, Dr. Black descanted on the prejudicial directions in which certain forms of Medical specialism tend. He held that it was too much the fashion to introduce new names and new remedies without determining their comparative value, or any attempt at explaining the principles on which the administration of remedies ought to be based. He illustrated his remarks by an adverse criticism of gynecology, dermatology, and ophthalmology. Under the second head he referred to the influence of fashion on the conduct of some Practitioners; many of whom, he contended, never formed comprehensive or elementary notions of disease or treatment, but servilely followed everything new that human vanity introduced, and a fickle public applauded. He reprehended the practice of hasty diagnosis for effect as unworthy of any upright Medical Practitioner. In respect of popular credulity, he maintained that it was not absolutely the most illiterate, but those who affected considerable intelligence that were more frequently the most ardent supporters of such hallucinations as homœopathy, allopathy, etc. Under the third portion of his subject he explained the several sources of fallacy, which ought to be eliminated in estimating the value of remedies. He held that the natural history of disease ought to be more studied. He was not absolutely against the introduction of novelties, but held that Medical science had reached a stage at which their introduction ought not to be empirical. At considerable length he discussed this part of his subject. The Section unanimously accorded Dr. Black a vote of thanks for his very suggestive paper.

Dr. Charles Bell Taylor read a paper "On the Forcible Introspection of Women by Government," of which the following is an extract:—Dr. Taylor first questioned the right of Government to forcibly introspect women. He admitted the propriety of State interference in times of pestilence or of great public danger, when people could not help themselves and suffered from no fault of their own; but even in such cases three essentials were needed—first, the necessity for interference must be undoubted; secondly, the law must be limited to the shortest possible period; and, above all, it must be impartially applied. He pointed out that the living a loose life and catching disease was a voluntary act, for which no citizen has any right to call on the State to protect him. He asserted that there is no adequate necessity in this country for any legislation on the subject of contagious venereal diseases, because these diseases have for years, prior to the enactment of the Contagious Diseases Acts, been declining in extent and virulence, both in the army and out of it; also, because there is only one disease of venereal origin—true syphilis—that affects the constitution, or can on any pretence be considered a matter of State concern; because true syphilis constitutes but a small fractional proportion of the mass of cases which are classed under this head; and because, in the language of Mr. Simon, "in an enormous majority of cases this worst form of venereal disease is not of more than transient importance to the person attacked;" because also the milder forms of venereal maladies (nine-tenths at least), though unimportant in themselves, are still great checks upon incontinence, and consequently the means of saving thousands from the more serious malady. Dr. Taylor dwelt strongly on the injustice of the Acts as applied to women only, as though they had spontaneously generated an affection which must have been previously communicated by a man. There was abundant evidence to show that men (notably soldiers and sailors) are equal, if not the greater sinners. The Doctor questioned the wisdom of State interference with prostitution as a trade with a view to supply men with a good article for their money. There could be no trade without a buyer, and if the trade was immoral buyer and seller were equally guilty; nor could Government virtually or actually license it without being implicated in its immorality. He asked what would be said if a deputation of prostitutes waited on Parliament, to demand despotic and indecent laws against men, on the ground that they communicated disease to them and their children? After proving by quotations from Parliamentary evidence that modest women were grossly interfered with by the police employed to enforce the Act; also that milliners, dressmakers, servant girls, and labourers' wives were classed as prostitutes for the purpose of the Act; and that one Parliamentary witness had declared that the Act would never succeed if it were confined solely to those who got their living by prostitution, Dr. Taylor proceeded to state that the means proposed are certain to fail in the attainment of their object, because absolutely healthy women (by mediate contagion) communicate infection; because the examinations cannot be carried out in a very large proportion of cases; because it is impossible to distinguish numerous affections to which most respectable women are subject from venereal diseases; because the women examined are exposed to great danger of infection from contaminated instruments; because the examination and restriction of one sex only, for a disease common to and propagated by both sexes, is not only a cruel injustice, but a delusion and a snare; because the system calls into existence and fosters a numerous class of clandestine prostitutes, who, from fear of detection, conceal their diseases, and become permanent sources of infection; and because true syphilis can be so rarely detected in the female that the examinations, by giving a false security, offer a direct inducement to thousands (especially married men) to contract disease. Dr. Taylor quoted a mass of evidence in support of his sanitary objections to the Acts. He referred to the statistical tables of MM. Puche and Fournier, which show that of 873 men who contracted syphilis in Paris 625 owed this worst form of infection to intercourse with registered and regularly inspected women." He also called attention to the following statement from M. Lecour, the head of the Parisian police employed in carrying out these regulations:—"We may fairly consider the 9500 patients who are treated in Hospitals as representing certainly not more than one-fifth of the venereal patients of

Paris. We thus reach a total number of 47,500—a formidable number, although it is probably *below the truth*." Dr. Taylor contrasted this statement with the fact that in London, with a population double that of Paris, we find from the careful investigations of Mr. Wagstaffe and the report of the Medical Officer of the Privy Council, that among a poor population of a million and a half there are only 455 cases of syphilis—a proportion which, as stated by Mr. Simon, cannot be held so large as to call for exceptional action on the part of the Government. Dr. Taylor quoted statistics compiled by Dr. Balfour, showing that venereal diseases in the army were declining at a rapid and satisfactory rate previous to the passing of the Act, and that since the Act was put in force the decline had in no case been so great as formerly, but that at certain stations where the Act had been rigidly enforced there had even been an increase of disease. Similar evidence came from Holland, Bengal, and Bombay to prove that State interference for the prevention of venereal maladies made matters worse instead of better. Finally, Dr. Taylor stated that other means, entirely unobjectionable, Christian, merciful, and in full accord with the free spirit of English institutions, would suffice to check the spread of disease, in proof of which he gave evidence to show that women are most eager to apply to Hospitals for treatment when diseased; and asserted that there was no need whatever for police spies, disgusting periodical examinations of healthy women, or the infamous degradation of the sex generally, such as is too surely accomplished by the present law.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

Sir A. Cooper's Attack on the "Lancet"—Mr. Bransby Cooper's Case of Lithotomy—Report of the "Tragedy"—Action for Libel.

In a former paper in this series I have stated that Sir Astley Cooper was never "honoured by a nickname" in the *Lancet*. But sometime in the year 1827, Sir Astley, in a speech made at a public dinner, used some strong language respecting that journal. He denounced it as *a reptile press*, and used the word *miscreant* in his comments. Of course this was not allowed to go unnoticed or unchallenged, and Sir Astley was roundly abused in return. The relationship which existed between most of the Surgeons and Assistant-Surgeons of the Borough Hospitals offered a subject for fair comment. Undoubtedly, though most of them were men of mark, they were too closely related, hence they were termed "neveys and noodles," and subjected to various kinds of insulting epithets. Amongst the Surgeons of Guy's Hospital was Mr. Bransby Cooper, nephew of Sir Astley, and who had seen good service in the war with France. In 1828—just forty-two years ago—my predecessor was Mr. James Lambert, a Surgeon in general practice at Walworth. He was a man of considerable ability in his Profession, was somewhat in ill-health, and acted as reporter of cases at the Borough Hospitals, and occasionally of the papers and discussions of the societies. He successfully tied the common carotid artery on the distal side; an operation first, I believe, performed by Wardrop. There is no doubt that, in the course of his connexion with the Hospitals named, there had been some misunderstandings between himself and Mr. Bransby Cooper; in fact, at one of the biennial dinners of the Hospitals, Mr. Cooper turned him out of the room. Mr. Wakley has often told me that Lambert was constantly bringing reports of cases under Mr. B. Cooper's care, the tone of which was often unfriendly, and occasionally very severe. These reports were rejected. At length, a case of lithotomy occurred which attracted considerable attention. Lambert brought an account of the case to the *Lancet* office, and declared, as Mr. Wakley stated, that if it were not published he must cease his connexion with that journal. Admitting that Lambert was a valuable *aide*, and that he would have acted upon his threat, there never was and never could be any justification of the mode in which the case was published. I am in a position to state that Lambert's report was simply a plain narrative of the facts of the operation, with some comments. The form in which it was published was due to after-manipulation, and it is not difficult to determine that there was more than one person engaged in the process. At this time of day it seems all but incredible that such a report could ever have been published. But forty years ago passions in the Profession ran high, and the Medical press had obtained an unenviable notoriety for its personalities and its libels. The publication of Mr. Bransby Cooper's case still further lowered the character of this branch of our literature, and at the time I joined the *Lancet*, writers for other periodicals, whether political or literary, were in the habit of treating us as somewhat inferior, both in position and caste. The influence exerted by the publication of Mr. B. Cooper's case was very great on the Profession, and the trial which resulted from it is one of the most remarkable on record. I would willingly have passed over this stage in the history of the Profession, for it is not creditable to most of the persons implicated. But I could not consistently do so. The transaction, I know, afterwards was deeply regretted by some of the actors in it; but the evils it inflicted upon others were irreparable. Previous to the appearance of the report, the newspapers had been plied with little sensational articles about "a dreadful operation at Guy's Hospital." Here, then, is the report as it appeared in the *Lancet* for March 29, 1828:—

"THE OPERATION OF LITHOTOMY, BY MR. BRANSBY COOPER, WHICH LASTED NEARLY ONE HOUR!! (a)

"We should be guilty of injustice towards the singularly gifted operator, as well as to our numerous readers, if we were to omit a 'full, true, and particular' account of this case. It will, doubtless, be useful to the country 'draff' to learn how things are managed by one of the privileged order—a Hospital Surgeon—nephew and Surgeon, and Surgeon because he is 'nephew.'

"The performance of this tragedy was nearly as follows:—

"Act 1. The patient (b) (a labouring man from the county of Sussex, thick set, ruddy and healthy in appearance, and 53 years of age) was placed on the operating table, at a few minutes past 1 o'clock, on Tuesday, the 18th. The only one of the Surgical staff present, besides the operator, was Mr. Callaway. The ceremony of binding the patient we need not detail; the straight staff was introduced, and was held by Mr. Callaway. The first incision, through the integuments, appeared to be freely and fairly made; and, after a *little* dissection, the point of the knife was fixed (apparently) in the groove of the staff, which was now taken hold of, and the knife carried onwards—*somewhere*. A small quantity of fluid followed the withdrawal of the knife; the forceps were now handed over, and for some time attempted to be introduced, but without effect. 'I must enlarge the opening,' said the operator; 'give me my uncle's knife;' this instrument was given, and a cut was made with it, without the staff being reintroduced. The forceps were again used, but as unsuccessfully as before; they were pushed onwards to a considerable distance, and with no small degree of force. 'It's a very deep perineum,' exclaimed the operator. 'I *can't reach the bladder with my finger*.'

"Act 2. The staff reintroduced, and a cutting gorget passed along it—various forceps employed: a blunt gorget—a scoop—sounds and staves introduced at the opening in the perineum. 'I really can't conceive the difficulty—Hush! Hush! Don't you hear the stone?'—'Dodd (turning to the Demonstrator), have you a long finger? Give me another instrument—Now I have it! Good God! I can hear the stone when I pass the sound from the opening, but the forceps won't touch it—O dear! O dear!

"Such were the hurried exclamations of the operator. Every now and then there was a cry of Hush! which was succeeded by the stillness of death, broken only by the horrible squash, squash, of the forceps in the perineum. 'Oh! let it go—pray let it keep in,' was the constant cry of the poor man.

"This act lasted upwards of half an hour; the former upwards of twenty minutes. The stone was eventually laid hold of, and never shall we forget the triumphant manner in which the Assistant-Surgeon raised his arm and flourished the forceps over his head, with the stone in their grasp. The operator turned to the students and said, 'I really can't conceive the cause of the difficulty,' the patient being upon the table, bound, whilst the operator was '*explaining*.'

"The man was put to bed much exhausted, but rallied a few

(a) The following passage occurs in John Bell's great work on Surgery:—"*Long and murderous operations, where the Surgeon labours for an hour in extracting the stone, to the inevitable destruction of the patient.*"

(b) The poor fellow, who has left a wife and six children, said that "he came to town to be operated upon by the '*Nevey*' of the great Sir Arstley."

hours afterwards, and leeches were applied, in consequence of tenderness of the abdomen. He passed a restless night, was in great pain, and was bled from the arm on the following morning. Leeches were applied in the afternoon, and about 7 o'clock in the evening death ended the poor fellow's sufferings, about twenty-nine hours after the operation.

"*Examination of the Body.*

"There was a very large and sloughy wound observable in the perineum, and the scrotum was exceedingly dark coloured from ecchymosis. The finger could be passed to the prostate without difficulty, which was not deeply situated; indeed, it was the declared opinion of Dr. Hodgkin and Mr. Key that the man *had not a 'deep perineum.'* The whole of the cellular tissue throughout the pelvis was easily lacerable, and this was especially the case with the portion between the bladder and rectum, admitting of the passage of the finger with great facility, and to a considerable distance. There was a tolerably fair lateral section of the prostate and neck of the bladder. The gland itself was larger than natural, and the portion which is designated the third lobe presented a singular appearance, being of the size of the tip of the little finger, and forming a kind of valve at the neck of the bladder; part of this third lobe had a dark-coloured appearance, and it seemed as if some substance had been resting upon it. The bladder itself presented nothing remarkable.

"The peritoneum lining the abdominal parietes was highly vascular, and there was a slight quantity of turbid serum in the cavity of the abdomen. The kidneys had a mottled appearance throughout their cortical substance.

"There are two or three points in this case to which we beg particular attention; first, the statement of Mr. B. Cooper, at the time of the operation, that he '*could not reach the bladder with his finger*,' as contrasted with the fact of the bladder being very readily reached in the post-mortem examination, the man not having a deep perineum; secondly, the circumstance of the finger passing with facility between the bladder and rectum to a great depth, as considered in connexion with another declaration of Mr. Cooper, that he could not feel the stone with the forceps until the time of its extraction, although a sound, passed into the bladder downwards from the penis, struck upon the stone, as was the case also, on one or two occasions, when a staff was passed at the perineal opening.

"The surface of the calculus was rather larger than the disc of a shilling, flat, oval-shaped, and apparently consisting of lithic acid."

In addition to the report, leading articles of an exciting kind, and squibs and epigrams, some in the worst taste, were inserted. As a specimen, take the following:—

"When Cooper's 'Nevey' cut for stone,
His toils were long and heavy;
The patient quicker parts has shown
He soon cut Cooper's 'Nevey.'"

Under these circumstances, Mr. Cooper had no alternative but to bring an action for libel. This he did, and some account of the proceedings will appear in my next.

THE CONTAGIOUS DISEASES ACT IN SOUTHAMPTON.

(*From a Correspondent.*)

You wish to know something of the working of the Contagious Diseases Act here in Southampton. Well, I shall do what I can to enlighten you in the matter. The working of the Act here is of more than ordinary interest, as it may be said to be the only place where the Act is enforced which is not a considerable naval or military station. It is true there is a garrison at Winchester and many soldiers and sailors at Portsmouth, both of which are close at hand; but the place itself, beyond the few seamen manning the guard-ship and a few sappers connected with the ordnance survey, contains no regular troops. Nevertheless, there is a large floating population of merchant seamen, and there are generally many men of her Majesty's service on leave from the adjoining stations.

The Act has only been in force for three months, having come into operation on May 27. During that time it may be said to have worked perfectly smoothly. On May 24 a public meeting was called by the authorities, who were in favour of the Act, and to it came a firm phalanx of opponents. The discussion was long and sharp, but, when it came to a division, the numbers were nearly equal. Since that time there has been no organised antagonism, as there has been at Devonport, and the authorities and the women have been allowed to settle matters quietly.

The examining Medical Officer is Dr. Duigan, a Staff-Surgeon in the Royal Navy, who, previous to settling down here, has had experience at other ports of the practical working of the measure. He says he has not had the slightest obstacle thrown in his way, and that the women, the persons most concerned, appear to appreciate it rather than otherwise. In the meantime, there being no Hospital accommodation in Southampton, for the South Hants Infirmary rejects all such cases, it is necessary to send those found infected to the Lock Hospital at Portsmouth; but a small Hospital of about thirty beds is in course of erection here for their detention and cure. Although Government does not interfere in the matter, it is highly desirable that a refuge should be attached to it when ready for inmates, and some benevolent people are already stirring in this behalf with a purpose all must heartily commend.

Hitherto about 180 women have been enrolled on the register, and of these about one in three has been found diseased. Altogether, including some recommittals, about eighty have been sent to the Lock Hospital at Portsmouth. The disease most common, Dr. Duigan says, was the soft variety of sore, the hard or Hunterian chancre being rare; but some of the sores, although not apparently infecting the constitution, had assumed a phagedæmic character. Secondary symptoms are comparatively rare. Under such circumstances, as might be expected, the character of the disease prevalent has rapidly ameliorated, and the majority of those now infected suffer only from a discharge of some kind. Still there are a considerable number whom the Act has failed to reach, as is always the case in the first instance. In all seaport towns there is a considerable number of women of loose character who have been married by seamen, not unfrequently in a drunken frolic, although it has turned out seriously enough in the long run. These women take advantage of their husbands' compulsory absence to play the whore, and, having the advantage of a certain social status, are reached with more difficulty than are the women on the streets. Of such, Southampton possesses not a few, and as yet Dr. Duigan's satellites have failed to diminish the number; but experience at Devonport, as Mr. Bulteel assures us, goes to show that the enforcement of this Act, above all things, tends to get rid of this most undesirable class, for they dread being enrolled on the register, and they dread being sent to Hospital, feeling assured that their husbands would thus speedily become aware of their misconduct, and so they would lose the support contributed by him.

On the whole, therefore, it must be said that the Act has done good, it has worked smoothly, and there has been none of that indecency perpetrated by its opponents in Plymouth, Devonport, and elsewhere.

INDIAN MEDICAL SERVICE.

The following is a list of the candidates who were successful at the competitive examinations at Chelsea in February, and at Netley in August, 1870, after having passed through a course at the Army Medical School, Netley:—

Order of Merit.	Names.	Studied at	No. of Marks. (Max. c900.)
1.	(a)M'Connell, J. F. P.	London and Aberdeen	5855
2.	O'Brien, J.	Dublin and Cork	5215
3.	M'Donnell, J. O'M.	Galway	4878
4.	Reid, J.	Glasgow	4683
5.	Mackenzie, G. P.	Edinburgh	4418
6.	Sibthorp, C.	Dublin	4119
7.	Laing, J. A.	Edinburgh	4065
8.	Cook, H. D.	Edinburgh	3988
9.	Peterson, R. A.	Dublin and Galway	3941
10.	Weir, T. S.	Dublin	3681

NAVAL MEDICAL SERVICE.

The following are the names of the successful candidates who passed the recent competitive examination for admission into the Naval Medical Service, held at the London University.

(a) Has been awarded the Herbert Prize.

between August 8 and 11, in the order of merit in which they passed, and the number of marks obtained:—

	No. of Marks.
Samuel Haslett Browne, M.D., Queen's College, Belfast	2435
William Henry Colahan, M.D., Queen's College, Galway	2235
Christopher Harvey, Westminster Hospital . . .	1905
Thomas Johnson Alloway, McGill University, Montreal	1875
Charles Henry Haines, M.D., Queen's College, Cork .	1795
Robert Gilmour McCalman, M.B., University of Aberdeen	1770
John Campbell, M.B., University of Glasgow . .	1745
Frederick Taylor, M.B., University of Dublin . .	1395
Nicholas Fitzhenry Fitzmaurice, Queen's College, Cork.	1325
Frederic William Laslett, Guy's Hospital . . .	1325

REVIEWS.

On Aphasia, or Loss of Speech, and the Localisation of the Faculty of Articulate Language. By FREDERIC BATEMAN, M.D., M.R.C.P., Physician to the Norfolk and Norwich Hospital. London: J. Churchill and Sons; Norwich: Jarrold and Sons. 1870.

We think that members of our Profession generally, and more especially those whose days are fully occupied with practical problems of applied Medical science, will feel grateful for this very readable essay. For, of all that has been said or written on the subject, much is difficult of access, and more, when found, seems to be involved in almost hopeless obscurity. Dr. Bateman has made an effort to remedy this; and, with a loving interest, has brought together the scattered facts, rehearsed the many opinions, and summed up for us, we may say exhaustively, what is to be said about this new thing—aphasia. The work consists of portions reprinted from former publications, the appearance of which at successive intervals, has afforded the author several advantages. New sources were found, interesting communications brought out, comments commented on, and post-mortem records gained by prolonged watching of cases previously observed. This more than compensates for occasional recapitulation or repetition.

The author, in the first place, starting from the definition hat "Aphasia is the term which has recently been given to the loss of the faculty of articulate language, the organs of phonation and of articulation, as well as the intelligence being unimpaired," proceeds, in three sections, about half the entire work, to give the evidence afforded by all available, apposite cases.

After a proper notice of many important speculations as to the seat of the faculty of speech in the brain, much prominence is naturally given to the theory of Professor Broca, that the seat of lesion in aphasia is "the posterior part of the third frontal convolution of the left hemisphere," a theory which Dr. Bateman happily characterises as the "*ne plus ultra* of pathological topography;" *i. e.* for the present. A very careful explanation is given of the exact site of Broca's region; and, as a frontispiece to the volume, there is a sufficiently good engraving of a brain, marked by that Professor himself.

Side by side with what we may call Broca's hypothesis, of course we have a statement of others, which have been from time to time put forth. Bouillaud, seat of speech in the anterior lobes; M. Dax, seat of aphasia-lesion is in the left hemisphere; and Schroeder v. d. Kolk, seat of speech in the corpora olivaria.

Now, in the setting forth of evidence on this subject, it was open to the author to proceed on either of precisely opposite plans. Taking his stand on one of the theories, say Broca's, as the most urgently pressed, he might have selected from every quarter cases telling for or against it, *instantiæ convenientes*, or on the other hand, he might simply take all well recorded cases in which speech was impaired, and, passing them in careful review, infer whatever might seem justifiable. In the sequel, it is clear that the latter plan, adopted by our author, is the best. For it is after throwing together a mass of material in the form of upwards of seventy cases, some pointing to one and others to an opposite theory, and which form very interesting reading from their strange, and often pathetic or humorous nature, that we first proceed to search for a common quantity, and (in part IV.) to define this protean condition called aphasia. It is a relief to find, at the outset, the admission that aphasia "is clearly only a symptom, and not a pathological entity, not a malady *per se*," and so we are the more disposed to admit fair ground for inquiry respecting the lesions in at least two forms of defective speech. In defiance of a nomenclature the inventive profusion of which borders on the ludicrous, the author has simply retained the two classes—amnesic A. and ataxic A. The first named indicates an inability to talk, because something wrong in the mind prevents a recollection of the words; while in the "ataxic" form some error of the musculo-nervous system causes a defective power of utterance. With these types chiefly in view, Dr. Bateman describes ten "varieties." Our limits forbid, or we would gladly quote from this series of illustrations, in which the reader will find some of the most difficult physiological problems, interwoven with a wonderful chapter of "curiosities" of Medical literature.

Part V., is devoted to the etiology of loss of speech, and the original sources of that affection are shown to be varied to a remarkable degree; thus, we find aphasia congenital, traumatic, from tumours, diseases of the spinal cord, epilepsy, neuralgia, hysteria, worms, various drugs, septicæmia, and lastly from snake bites. The practical reader will here find a few remarks on the prognosis and treatment of such clear cases as are united by a common link. *A priori*, it would scarcely have been thought possible to teach language anew, word by word, as to a child, and after its complete loss, but yet this has been effectually done. Purgatives, emetics, leeching, stimulants, mental emotion, and galvanism, have all been found useful in appropriate cases. The treatment must necessarily be directed to the disease of which aphasia is the symptom *pro tem.*

Part VI., and last, is "a summary of the whole question." The several theories of localisation are taken *seriatim*, and, from a pathological standpoint, the question is asked whether the numerous cases recorded in earlier parts of the volume support decisively either of the four views already stated. On the whole, Dr. Bateman gives a verdict of "not proven" in each case, and proceeds in the remaining pages to review briefly the grounds afforded by anatomy, physiology, comparative anatomy, and anthropology, for deciding this "obscure subject." This part of the work might, we think, have been with advantage enlarged. For although it would of course be right, should recorded cases, with dissections, distinctly assert it, to acknowledge Broca's convolution, or any other spot in the encephalon, as the seat of speech power, we have a right, especially as physiological anatomists, to feel very sceptical. The olivary body theory, here somewhat hastily dispatched, but endorsed by the great genius of Schroeder v. d. Kolk, has a strong anatomical basis in reference to the ataxic aphasias, and if it be stated that in five cases only out of sixty-three these body were diseased, we are tempted to question our own familiarity with them in health, and to what extent is their examination usually carried in our post-mortem rooms, and how often microscopically?

Our knowledge of brain anatomy advances steadily. In the convolutions six layers have been described by Baillarger, in most of which, says Dr. Lockhart Clarke, at least seven distinct layers may be distinguished. So here are, say forty, unquestionable organs, which, having natural boundaries, the anatomist feels must have different functions. What stratigraphical geology is to common geography, these layer-systems are to surface-enlargements and "convolutions." Our forgotten words and half-lost ideas resemble the fossils; but in which layers are they severally imbedded? Why, reasoning from analogy, may the physiologist well ask, should you, with Gall, expect ideas or faculties to reside in, or come from, particular convolutions? From a lobulated kidney there come various products, but who could think of the phosphates and urates as coming from special lobules? And so on with other complex organs; while, to pursue the argument *quoad* "phrenological" localisations, would be to rehearse all that the highest physiology has recently been telling us. While, therefore, we agree that facts must tell their own story, hampered by no *à priori* notions, we think the facts, pathological or other, must be collected with such common characteristics as will be mostly suggested by a reasonable hypothesis. The sequel shows this plainly, for Dr. Bateman's conclusions are:—

1st. That, although something may be said in favour of each of the popular theories of the localisation of speech, still, so many exceptions to each of them have been recorded, that they will none of them bear the test of a disinterested and impartial scrutiny. 2nd. That I by no means consider it proved that there is a cerebral centre for speech at all, and I would venture to suggest that speech, like the soul, may be something the comprehension of which is beyond the limits of our finite minds.

By the way, at this concluding sentence we must stop and protest. However attractive the mystical "rest-and-be-thankful" sort of view, we hold it to be the privileged duty of every worker to cherish for ever an unwavering hope and belief that no physiological problem will remain "insoluble"—a word to be banished from our vocabulary. Dr. Bateman has, we think, conclusively shown, not only that the localisation of

the speech faculty is far from settled; but, more than this, that its settlement is utterly impossible until a more physiological sifting of the morbid phenomena has taken place. Amnesic and ataxic aphasia are physiologically very far apart, and require separate study. In one case it is as if music ceased because the player had forgotten the air; in the other, because his arm was palsied; and the one might arise from disorder in the hemispheres, the other in the olivary bodies. Again, the recollection of a word (not memory) is a very complex act, and far from being fully understood. Acts at first consciously volitional are by habit relegated to the reflex order, and this applies to the phenomena of ideation and evocation of words. We use words of a high degree of familiarity or fixity by the automatic, and ultimately the reflex (unconscious), methods. These acts pass more and more out of our control, so that a fluent speaker's actual thought is frequently in advance of what he is at any given moment saying, provided it be simple and ready to hand. One form of aphasia is an exaggeration of our every-day difficulty in recalling nouns, not improbably because these words least of all get passed on into the reflex system, and a forgotten name is constantly recalled by reflex flashes of associated ideas when we fail to unearth it by any effort of the will. Reflex actions die hard, but the commissural tissues through which the will is set in motion and acts must be far more easily disordered. These very various manifestations imply the use of differing lines of communication, new "axis bands" between the nerve-cells, and a possible transference of ideas and their symbols (words) to new nerve-corpuscles, according as the word is used by the will or evoked by an unconscious reflex stimulus. The strange forgetting, or substitution, or jumbling of words in aphasia is caused by the varied modes in which so intricate a mechanism becomes jangled and partially destroyed. It is ideational stammering.

Much more of this must be worked out before aphasia will be understood; but it is not hopeless. Dr. Bateman has made an important contribution to the discussion in this elegant treatise, and we have little doubt that he will pursue the investigation. We cannot too highly praise the calmness and freedom from bias with which he treats an inquiry in which the temptation is strong to enunciate clearly and plausibly conclusions which a rigid survey of recorded cases, in which the anatomy was worthily made out, quite forbids. The whole subject is one of deep interest and vast importance, but one from the thought of which we rise with feelings akin to those expressed by La Place in his last memorable words:—"Ce que nous connoissons est peu de choses; ce que nous ignorons est immense."

FOREIGN CORRESPONDENCE.

FRANCE.

THE WAR.

(*From our Special Correspondent.*)

PARIS, August 15.

You asked for a letter from Paris as I passed through, and I am afraid for the present you must not expect much more than that. Our Foreign Office passport just now insures you a superfluity of civility on landing in France, and it is easy enough to get to Paris. But to push yourself beyond in the direction of the active operations of the army is quite another affair. As you know, even the *Times'* correspondent has been obliged to retreat, and he is now staying in the same hotel with me. For the moment his occupation is gone. We know less of general news than you do in London, and Professional news can only relate to matters of preparation and organisation. Very few details can be learnt as to the Medical staff of the army. Of course it is said to be complete and efficient, and its work is necessarily far away and out of observation. Not many wounded soldiers are to be found in going round the Hospitals in Paris, and, as may be supposed, the cases are not at present of a serious nature. Such as they are, they are scattered about, and make no show. Some fifteen officers are lodged in the Val-de-Grace, and I counted a list of about thirty men at the St. Martin. Curiously enough most of them are leg wounds. Preparations are, however, being made for more numerous arrivals. Houses in the suburbs and in the course of the fortifications are being fitted up for the reception of patients. Many private persons are also placing their hotels with beds and other indispensables at the disposal of the authorities. In the meanwhile, and during this moment of awful suspense, the most noticeable activity is at the Palais de l'Industrie. There the Société de Secours aux Blessés Militaires has its centre of operations, its bureau, and its depôt. The neighbourhood is the scene of bustle and interest. In the open space in front are pitched specimens of the waterproof Hospital tents with their bedsteads. Groups of people seeking employment stand round the doors, while others, already engaged, and wearing the badge of the red cross, are constantly passing and repassing on their respective errands. Inside the passages are lined with men and women of all classes, waiting their instructions, and in the several offices you see signs of a well-ordered and progressing work. An Englishman not accustomed to French habits would perhaps object to the amount of noise and the clatter of tongues, but I think I can call to mind scenes of silent and surly inactivity in London during the Crimean period still more objectionable. Here, at any rate, you meet with politeness, and your inquiries are satisfied as far as possible.

This Society is founded on the Convention signed at Geneva in August, 1864, which primarily ordains that ambulances and military Hospitals shall be recognised as neutral, and as such protected and respected by belligerents so long as they remain occupied by sick and wounded and certain reasonable regulations are observed. In France the head-quarters are at Paris, with branches extending over the empire. It is under the patronage of the Emperor and Imperial family, with M. le Comte de Flavigny as President of the Council, and Baron A. de Rothschild as Treasurer. The Council consists of fifty elected members, supported by a large body of subscribers. A state of war such as now calls the Society into full action, and its proceedings are conducted by sectional committees, superintended by a central committee. The general object of the Society is to relieve in every possible way the condition of the sick and wounded on the field of battle by furnishing assistance and necessaries of any kind that may be wanted. But our interest lies chiefly in what is being done by the Medical committee, of which Dr. Chenu is the Vice-President and most energetic member. At the commencement of war the organisation and despatch of ambulances is the work which first occupies attention. All the efforts of the other sections—such as the collection of funds, the accumulation of material, and the enrolment of volunteers—tend to this point.

Now, a word or two about what an ambulance is as it is sent out by the Society. The wounded soldier on the field of battle requires immediate care and treatment. Life is too often lost because the means of these are not at hand in sufficient force. The army system is rigid, and has never yet been found equal to a great emergency. The volunteer ambulance is an elastic organised body of Surgeons, assistants, nurses, and attendants, carrying with them all things essential for their work. It is intended to supplement the proceedings of the regular army Surgeons, and to do what, under pressure of circumstances, would otherwise be left undone or postponed. This principle of action is to obviate as much as possible the necessity of transporting the wounded, especially those with fractures, and to give treatment as near as is safe to the scene of injury. Therefore, when fighting is going on, the *ambulance mobile* has instructions to convert itself into a temporary Hospital, close at hand and within easy distance of the next village, arranging at the same time for the chances of being obliged to move in accordance with the army. The *personnel* of the ambulance consists of one Surgeon-in Chief, four Surgeons, ten Assistant-Surgeons, and twelve dressers, with clergy of different persuasions, paymaster, and a sufficient number of clerks, nurses, and general attendants. The equipages have their special servants. Altogether the muster comes to but little short of a hundred persons.

The *matériel* is made up of a waggon on four springs, with beds, for the conveyance of the most badly wounded, a light carriage on two wheels for rapid transport, an omnibus for such of the staff or others who may require its use, and several vehicles for the stores and heavy baggage. Then there are tents, beds (which may be used for moving the sick, some on wheels and others adapted for porterage), bedding, blankets, clothing, boxes of linen, bandages, compresses, and lint, four

amputating-cases and other surgical implements and apparatus, a "*pharmacie de campagné*," all sorts of tools, cooking utensils, forage and things for use among the patients. A few saddle horses accompany the ambulance. In fact, everything is as complete as money, thought, and management can make it. Of course, at starting only a certain quantity of material is carried; but the system is expansive, and it is calculated that by increasing the number of tents, etc., which may be had on demand, and taking advantage of dwelling-houses and buildings within easy reach, the Surgical staff would be able, if called upon, to take satisfactory charge of a thousand sick and injured. The Minister of War fixes at first the whereabouts of the various ambulances.

On Sunday last No. 4 ambulance started from the Palais de l'Industrie. Dr. Chenu had told me some days previously that two o'clock would be the time of departure. It was creditable to all concerned that almost as the clock struck the hour the order to march was given, and among the cheers and blessings of a great concourse of people, Surgeons, clergy, and attendants, followed by the carriages and waggons, set off in procession on their way to the station. Every one and everything carries the red cross badge of the Society. Each ambulance is attached, according to circumstances, to some army corps, and all are under martial law. No. 5 is prepared to follow on Thursday next, and others will be got ready as quickly as required.

At the same time, and in co-operation with the Society, the American residents in Paris have most generously completed an ambulance of their own, at their own cost. Considering the small number of Americans now to be found here, it is hardly possible to estimate the value of this gift, so much good will does it show. Dr. Marion Sims is at the head of the Medical staff, with his son-in-law, Dr. Pratt, as one of the Surgeons. They offer their services gratuitously, while the staff of the other ambulances is most handsomely paid. At the present time they wait orders for their destination; but, as all speak German as well as French, they most rationally ask permission to pass through the lines to the succour of the French wounded, who are now, in large numbers, in the hands of the Prussians. It will be most satisfactory to find that every facility is granted them by the French authorities for such a merciful expedition. For all who know the French soldier must be aware that, when disabled in a foreign country or among strangers, he is, of all wretched creatures, the most to be pitied. Self-reliant enough when associated with his compatriots, he becomes hopeless and helpless as soon as he hears nothing but the sound of a strange tongue. And to him, poor fellow, German is worse even than Syriac or Welsh. There is a rumour just now that No. 1 ambulance belonging to the Society, which was better mounted than the rest, thanks to the liberality of the Duke of Hamilton, has taken upon itself independent action, and has contrived, by some means, to find its way to the Prussian side, for the purpose of taking charge of the French who are unfit for removal to any distance.

I cannot vouch for the truth of this story, but an old and well-known correspondent of yours, who is on the Medical staff, has the credit of having planned and executed the move.

It is not easy to say much about the chances of English Surgeons finding employment in the camp or elsewhere at present. Dr. McCormack, of Dublin, has just returned from Metz, disgusted at having nothing to do. At the same time, Dr. Chenu informed me that he had received a letter from the Emperor, expressing his gratification at the sympathy manifested by the offers of assistance on the part of the Medical Profession among you, and giving assurance that any qualified persons speaking French would not only be put into immediate occupation, but would meet with an enthusiastic welcome. It must be remembered, however, that, after all, the Emperor is only Emperor, and that, behind him, it is to be feared there is a jealous Medical bureau. We all know the difference between individual goodwill and official obstinacy.

This is the Emperor's fête-day, and it is just as dull as a London Sunday.

Tuesday night, August 16.

You must be content to take your news piecemeal, as we get it here. There is a report to-day that the Prussians have left some forty thousand dead and wounded somewhere to the south of Metz. The French must have a proportionate number in the same condition; but none have arrived in Paris, though at least six and thirty hours have elapsed, and they would be glad to disencumber themselves as much as possible. We all wait in vain for something definite, or something to look at or to do; and while waiting I find that no less than thirteen hundred Doctors, students, and pharmaciers have inscribed themselves at the Val de Grace as offering voluntary assistance in the care of the wounded, in any way and at any place that may be desired, but that they can get no answer to their proposals, either from the authorities there or from the Minister of War, to whom they were referred. My informant goes on to say that if they cannot be employed in curing the wounds of their compatriots, they are equally willing to be sent as volunteers to inflict as bad or worse on the enemy, with the Chassepot or bayonet. Anything so as to serve their country. "*Voila ce que nous demandons.*" This is just a specimen of the wild agitation of young France at this moment.

I learn also that up to to-day, August 16, the Société de Secours aux Blessés Militaires has received 2,123,734 francs; and that their primary expenses for the establishment of eight ambulances amount to 560,000 frs., that they have allotted 1,200,000 frs. for these ambulances at the rate of 50,000 frs. per month for each; that they have given in relief to towns in the neighbourhood of hostilities about 98,000 frs., that they have expended 200,000 frs. in fitting up places of refuge where they even wanted aid in the nourishment and transport of the sick by rail; and that the cost of organisation and publication comes to about 60,000 frs. They have also sent to different places on the frontier 218 packages of linen, blankets, etc., weighing 7029 kil., and 2300 beds. There are now in the depot 5260 beds, about 5450 kil. of various goods, besides wine, sugar, and medicine.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—During the past year the following candidates (Bachelors of Medicine) have received promotion to the degree of M.D. :—

Collins, Alexander, M.B., Bervie.
Davidson, Alexander Dyce, M.A., M.B., C.M., M.R.C.S. Eng., Aberdeen.
Flint, Frederic, M.B., C.M., Norwich.
Freeman, Alfred John, M.B., Southsea, Hants.
Grant, James, M.B., C.M., Longton, Staffordshire.
Hope, William, M.B., London.
Jefferson, Thomas Jewison, M.B., Market-Weighton, Yorks.
Jones, Thomas, M.B., London.
Kennedy, William, M.B., L.R.C.S., Canisbay, Wick.
Lyle, John Vacy, M.B., M.R.C.S. Ed., Durban, Natal.
Morgan, Lewis Wayne, M.B., C.M., The Hafod, Glamorganshire.
Philpots, Edward Payne, M.B., C.M., Leamington.
Rayner, Henry, M.B., C.M., Hythe, Kent.
Reid, Alexander, M.A., M.B., C.M., Wokingham, Berks.
Smith, Joseph Hume, M.A., M.B., C.M., Methlick.
Thomas, John Lewis, M.B., C.M., L.S.A. Lond., Nottingham.
Watson, William, M.B., Indian Army.
Whyte, John, M.B., C.M., H.M.S. *Scylla*.

And the following candidates, after the usual examinations, have received degrees in Medicine and Surgery :—

THE DEGREE OF M.B.

Allan, Hector, Evanton, Ross-shire
Anderson, Alexander Thomas, Marnoch, Huntly
Beattie, George Watson, Strathdon
Blacklock, A. Woolsey, Brighton
Blake, Edward Thos., M.R.C.S.L., Taunton
Bodman, Francis Henry, Calne, Wiltshire
Cooke, Edleston Harvey, Jamaica
Cullen, James, Calcutta
Davidson, John, Aberdeen
Davis, Christopher Jas., Barbadoes
Dewar, James, M.A., Fochabers
Duncan, James, Aberdeen
Ellis, Henry Vause, Crowle, Doncaster
Hay, Peter Grant, Ellon
Letters, Patrick, Aberdeen
Mair, Edward, Aberdeen
Manson, David, Aberdeen
Matheson, John, Urray, Ross-shire
Merson, John, M.A., Cabrach
Morison, George, Aberdeen
Munro, Alexander Begg, Melrose
Orchard, Thomas Nathaniel, Kingussie, Inverness-shire
Ostlere, Robert, Halifax
Robertson, Geo., Banchory-Ternan
Simpson, William, Fochabers
Smith, Patrick Blaikie, Aberdeen
Sutherland, James, Skelbo, Dornoch
Thomson, George, Belhelvie
Walker, Alexander, M.A., Udny
Walker, Alexander, Banff
Wattie, Charles Lindsay, Glenbucket
Whitelaw, William, Dunfermline
Yeats, William, Aberdeen

THE DEGREE OF C.M.

Allan, Hector
Anderson, Alex. Thomas
Beattie, George Watson
Blacklock, Arthur Woolsey
Cooke, Edleston H.
Cullen, James
Davidson, John
Davis, Christopher James
Dewar, James
Duncan, James
Ellis, Henry Vause
Hay, Peter Grant
McKilliam, Robert
Letters, Patrick
Mair, Edward
Manson, David
Matheson, John
Merson, John
Morison, George
Munro, Alexander B.
Orchard, Thomas N.
Ostlere, Robert
Robertson, George
Simpson, William
Smith, Patrick B.
Sutherland, James
Thomson, George
Walker, Alexander
Walker, Alexander
Wattie, Charles L.
Whitelaw, William
Wybrants, Jonathan
Yeats, William

Of the above-mentioned candidates, John Davidson, Edward

Mair, John Merson, Patrick Blaikie Smith, and Alexander Walker received their degrees in Medicine and Surgery with highest academical honours; John Mathieson, Alexander Begg Munro, and George Thomson their degrees in Surgery, with academical honours; and William Yeats his degree in Medicine, with academical honours. At the same time, James Stewart Orchard was certified as having passed all the examinations, and is entitled to receive degrees on his attaining the necessary age; and, at the late graduation term, the following were declared to have passed part of their examinations:—

Benham, William Thomas
Bovill, Edward
Brotchie, Theodore R.
Burrell, Alexander
Chiappini, Peter Alex.
Cobban, Alex. Richard
Connor, Louis R.
Cushny, William Alex.
Edwards, William H.
Forsyth, Alexander
Fraser, Duncan R.
Garner, John Edward
Gibb, Robert Shirra
Gibbes, Cuthbert C.
Goodhart, James F.
Hay, Frederick
Keith, Alex. C.
Knaggs, Samuel Thomas
Knowles, William Bisset
Law, James
Low, David
Macdonald, John D.
Marshall, Lewis W.
Milne, Thomas
Mitchell, Andrew
Ogston, Francis
Parris, Richard
Reid, James
Robertson, George James
Shepherd, James
Simpson, James
Sullivan, Peter Alfred
Swaine, Frederick R.
Taylor, William
Tytler, Peter
Urquhart, Alexander Reid
Waldo, Henry
Walsham, William J.
Welford, George E.
Wharry, Charles John
Williams, Alfred H.
Wilson, Alexander

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—ARTS EXAMINATION.—At the last preliminary examination for the Fellowship and Membership, conducted by the College of Preceptors, the following gentlemen were reported to have passed for the Fellowship:—

Acton, William J.
Berneys, Sidney A.
Bowe, Francis
Burtonshaw, Thomas
Cobbold, Charles S. W.
Collins, F.
Delamotte, P. W.
Delataste, Edward M.
Duke, Herbert
Dunn, William A.
Eastall, Henry F.
Elliott, William F.
Haden, Arthur C.
Harries, Thomas D.
Hewett, Frederick C.
Heyman, Frank G.
Hume, George H.
Jackson, John C.
James, Alfred
Kelly, A. B.
Ley, John W.
Lingard, Alfred
M'Cullagh, Thomas A.
Moore, Milner M.
Morris, E.
Nesbitt, William P.
Nickoll, John S.
Patrick, Robert
Phillips, Alfred
Roberts, Henry W.
Ross, G. H.
Rouch, J. R.
Rudd, Leonard
Rygate, B. R.
Saunders, G. R.
Savinon, John D. St. George
Schlesinger, Barthold
Sharp, John A.
Shaw, Herbert W.
Sherd, Henry A.
Spokes, Peter S.
Startin, James
Stewart, William R. H.
Tait, Robert L.
Treharne, John L.
Tyson, William J.
Ward, Lloyd B.
Webb, William E.
Williams, William H.
Young, Frederick W.

The following gentlemen passed for Membership:—

Adams, A. J.
Alexander, J. D.
Allott, W. L.
Bamfield, Thomas H.
Barron, H. G.
Basham, W. B.
Bathe, H. H.
Bavill, J. T.
Beaumont, W. M.
Bell, J. D.
Bell, R. F.
Blackmore, F.
Blakiston, A. A.
Boase, W. F. F.
Boswell, Alexander
Buckell, E.
Cadge, William H.
Chadwick, Alfred
Chant, Thomas
Chick, W. J. B.
Christian, John
Clayton, J. E.
Coombe, A. T.
Cozens, Thomas F.
Cree, William E.
Davis, Harry
Day, E. J.
Downing, Joseph U.
Elliott, F. J.
Ellis, H. B.
Evans, D. T.
Evans, M. B.
Fernandes, O. L.
Ford, A. V.
Golding, Reginald
Good, D'Oyly J.
Govett, N.
Gregg, Thomas
Griffith, T. N.
Gurdon, E. J.
Haines, E. W.
Hall, W. H.
Harding, G. C.
Haverson, J. J.
Hawken, F. J.
Heard, C. G.
Hewett, Augustus
Heygate, J. H.
Hind, H. J.
Hobson, J. M.
Hodson, Joseph H.
Houlbrook, Edward
Howells, Henry
Howse, Francis R.
Hutchinson, S. J.
Iliff, Percy
Irvine, T. J.
Jackson, Arthur A.
James, J. B.
James, William M.
Jones, C. M.
Jones, W. M.
Joseph, S. W. J.
Kempe, John Arthur
Lancaster, H. F.
Leavens, R. C.
Lee, C. G.
Lee, Edwin
Leeson, J. R.
Lyle, Samuel H.
Mansell, E. R.
Mason, S. B.
Manders, Horace
May, Sidney
Michell, H. S.
Moody, J. M.
Needham, Joseph
Newton, E. S.
Norburn, A. C.
Nott, J. H.
Owston, Alan
Pearse, J. S.
Peyton, W. C. L.
Podmore, Robert
Pointon, J.
Pooley, W. M.
Pope, C. E.
Poynder, G. F.
Pritchard, J. H.
Prouget, C. E.
Pycock, H. A.
Rees, D. V.
Robson, A. W. M.
Smith, Philip
Smith, W. B.
Snell, E. A.
Spitta, E. J.
Squire, W.
Stace, M. V.
Stevens, F. G.
Stevens, J. H. W.
Strover, Walter
Sturmer, A. J.
Swift, W. J. C.
Symonds, Edmond
Taylor, G. G. S.
Thaine, L. L.
Theed, W. C.
Thomson, S. T.
Thurle, Arthur
Turtle, James H.
Towle, J. C.
Twining, A. H.
Vickers, H. A.
Wakley, Thomas
Walbourn, W. H.
Wallis, K. S.
Watts, F.
White, W.
Williams, David
Williams, E. H.
Wilhamson, F.
Wilson, J. L.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 11, 1870:—

Roberts, Richard Lawton, Ruabon, North Wales.
Thornton, Philip, Dockyard, Chatham.

As an Assistant in Compounding and Dispensing Medicines:

Waring, Albert Wynne, Walworth-road.

The following gentlemen also on the same day passed their First Professional Examination:—

Briggs, George Chapman, King's College.
Fenn, Charles Draper, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLEN, PETER, F.R.C.S. Edin., M.D., Aural Surgeon to St. Mary's Hospital—Aural Surgeon to the Royal Society of Musicians, *vice* Dr. Yearsley, deceased.

ELLERY, R., L.R.C.P., etc.—Certifying Surgeon of Factories for the District of Plympton, Devon.

MILITARY APPOINTMENTS.

66TH FOOT.—Staff Assistant-Surgeon James Aloysius Joseph O'Brien, M.D., to be Assistant-Surgeon, *vice* James M'Crevy, M.D., deceased.

67TH FOOT.—Staff Assistant-Surgeon Frederick Heisch Dunbar, M.D., to be Assistant-Surgeon, *vice* Austen Bruen, deceased.

BIRTHS.

COATHUPE.—On August 8, at Broughton, Manchester, the wife of Edwin Coathupe, M.R.C.S., of a daughter.

PALATIANO.—On July 21, at Malta, the wife of George Palatiano, M.D., Staff Surgeon, of a daughter.

PEARSON.—On August 15, at 23, Upper Phillimore-place, the wife of David Ritchie Pearson, M.D., prematurely of a daughter.

SEALY.—On March 26, at Nelson, New Zealand, the wife of W. B. Sealy, M.D., of a daughter.

WATSON.—On July 9, at Little Huthwaite, Wortley, Sheffield, the wife of Alfred M. Watson, M.D., of a son.

MARRIAGES.

CHARLTON—CHARLTON.—On August 11, at St. Bartholomew's Church, Sydenham, John E. Charlton, Esq., R.N., eldest surviving son of the Rev. James Charlton, to Mary, only surviving child of John Fitzgerald Charlton, M.D., R.N.

HACON—MAN.—On August 10, at St. John's, Hackney, Edward D. Hacon, F.R.C.S., of Hackney, to Sarah Maria, daughter of the late Christopher Man, Esq., of 10, Chatham-place, Hackney.

KEELAN—LEATHEM.—On May 24, at the Cathedral, Georgetown, Demerara, Nicholas Walter Keelan, M.D., to Rosabella, second daughter of the late Charles Leathem, Esq., of Dominica, West Indies.

KOETTLITZ—FISHER.—On August 16, at Glasgow, Emil F. A. Koettlitz, London, to Eliza, only daughter of the late Alexander Fisher, M.D., Glasgow.

WISE—WOODS.—On August 10, at Long Benton Church, J. P. Wise, son of T. A. Wise, M.D., late Bengal Medical Staff, to Julia Ann, second daughter of John A. Woods, Esq., Benton Hall, Northumberland.

WOODGATES—ALLAN.—On August 11, at the parish church, Lewisham, Henry Woodgates, M.D., of Brighton, to Frances, second daughter of James Allan, Esq., of Campshill, Lewisham.

DEATHS.

ASHFORTH, GEORGE MORRIS, M.D., late of Market Overton, Rutlandshire, at Dr. Lowe's, Anglesey, suddenly, of aneurism of the aorta, on Aug. 10, aged 32.

DICKSON, ANNE, relict of the late Edward Thompson Dickson, M.R.C.S., for upwards of fifty years a Medical Practitioner in Jersey, at her residence, 41, Victoria-road, Kennington, on August 14, aged 78.

PEARSON, JANE, the infant daughter of David Ritchie Pearson, M.D., at 23, Upper Phillimore-place, on August 16.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRIGHTON AND HOVE DISPENSARY.—Resident Medical Officer and Dispenser; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Committee of Management on or before September 5.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Applications and testimonials to C. J. Thompson, Esq., Bristol, on or before August 23. Election on August 31.

CHESTER COUNTY ASYLUM, UPTON, NEAR CHESTER.—Assistant Medical Officer; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Clerk, on or before September 1.

CITY DISPENSARY, 46, WATLING-STREET.—Physician; must be duly qualified. Applications and testimonials to Mr. W. Tyler, Secretary, on or before September 10.

CLAYTON HOSPITAL, WAKEFIELD, GENERAL DISPENSARY.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Binks, on or before the 29th inst.

COTON-HILL INSTITUTION FOR THE INSANE.—Assistant Medical Officer; must be duly qualified. Applications and testimonials to Dr. Hewson, on or before August 24.

Derby General Infirmary.—Compounder of Medicines. Applications and testimonials to Mr. S. Whitaker, at the Infirmary, on or before August 27.

Dudley Dispensary.—Resident Medical Officer; must be duly qualified. Applications and testimonials to Mr. T. Sheppard, Dudley, on or before August 23. Election on September 7.

Gloucester County Asylum.—Senior Assistant Medical Officer; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Committee of Visitors on or before September 5.

Gloucester County Asylum.—Junior Medical Assistant; must be duly qualified and registered. Further particulars may be obtained of Mr. Toller, the Superintendent.

Hollingbourn Union.—Medical Officer for the Lenham District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. E. Hoar, Maidstone, on or before August 30. Election on September 15.

Hospital for Consumption and Diseases of the Chest, Brompton.—Resident Clinical Assistant. Applications and testimonials to Mr. P. Rose, Hon. Sec., on or before September 3. Attendance at the Hospital will be required on Monday, September 5.

Jersey General Dispensary.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

Maidstone Union.—Medical Officer for the Second District of this Union. Candidates must be duly qualified and registered. Applications and testimonials to the Board of Guardians, on or before August 25.

North Riding Infirmary, Middlesborough-on-Tees, Yorkshire.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Gregory, on or before September 1. Election on October 6.

Parish of Unst, Shetland.—Medical Officer. Applications and testimonials to Thomas Edmondston, Esq., Unst, from whom further particulars may be obtained.

Public Dispensary, 59, Stanhope-street, Clare-market.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. S. Phillips, 5, Bishop's-court, Lincoln's-inn, W.C., on or before August 22.

Queen's College, Birmingham.—Medical Tutor and Demonstrator of Anatomy. Applications, August 27.

St. Giles and St. George, Bloomsbury.—Resident Assistant Medical Officer for the above parishes; candidates must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. J. Robinson, Vestry Clerk's Office, Broad-street, Bloomsbury, on or before August 22.

Stafford County Lunatic Asylum.—Assistant Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Superintendent at the Asylum.

Stronsay, Orkney.—Parochial Medical Officer and Public Vaccinator. Applications, August 24.

Sussex County Asylum, Hayward's Heath.—Assistant Medical Officer; must be unmarried and duly qualified. Applications and testimonials to Dr. Williams, Medical Superintendent, on or before September 3.

Westhampnett Union, Sussex.—Medical Officer wanted for the Manhood District; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. R. G. Raper, West-street, Chichester, on or before September 1. Election on the 5th.

York County Hospital.—House-Surgeon; must be duly qualified. Applications and testimonials to Mr. R. Holtby, 5, New-street, York, on or before August 27.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Maidstone Union.—Mr. George Henry Furber has resigned the Second District; area, 5424; population, 13,013; salary, £120 per annum.

Melksham Union.—Mr. Lewis Miller has resigned the Fifth District; area, 5486; population, 1747; salary, £25 per annum. Mr. Joseph W. Stapleton has resigned the First District; area, 1453; population, 5598; salary, £60 per annum.

APPOINTMENTS.

Guisborough Union.—Henry William A. Sandell, M.R.C.S. Eng., L.S.A., to the Danby District.

Medway Union.—William P. Adams, M.R.C.S. Eng., L.S.A., to the Second District and the Workhouse.

Rotherham Union.—Frederick T. Le Tall, M.R.C.S. Eng., L.S.A., to the Beighton District.

Totnes Union.—Albert James Wallis, M.R.C.S. Eng., L.S.A., to the Dartington and Littlehempston District.

Toxteth-park Township.—Alexander McGregor, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., as Assistant Medical Officer at the Workhouse.

The library of the Royal Medical and Chirurgical Society will be closed from Monday, August 15, to Saturday, September 10, both days inclusive.

Mr. J. H. Perrin has been appointed demonstrator of anatomy in the Medical School at King's College.

Munificent Gift to the German Hospital.—The Baron Von Diergardt has given the munificent sum of £10,000 to the German Hospital at Dalston.

New Sanitary Act.— On Saturday Dr. Brewer's new Sanitary Act, passed in the Session, was printed, which enacts that all Hospitals in the Metropolis be placed within the district of every one of the nuisance authorities in the Metropolis.

Royal College of Surgeons.—The proceedings of the Council on the 11th inst. are just published, from which it appears, amongst other matters which have already been published in the *Medical Times and Gazette*, that the President reported the withdrawal of the Government Bill, and that the Committee on the Conjoint Board be requested to resume their labours, Messrs. Quain and Cock being added to the Committee. The Council then, in pursuance of the notice in the summons, proceeded to the consideration of the confirmation or non-confirmation of the following resolution of the Council of March 22 last—viz. :—"That it is desirable that not less than half of the members of the Court of Examiners shall be Fellows, who are not and have not been members of the Council, and that this resolution shall be carried out as soon as possible." Whereupon it was moved by Mr. Busk, and seconded by Mr. Erichsen, that with the addition of the words "within twelve months" after the words "and have not," the resolution be confirmed—*i.e.*, that the resolution do read as follows:—viz., "that it is desirable that not less than half of the members of the Court of Examiners shall be Fellows, who are not and have not within twelve months been members of the Council, and that this resolution shall be carried out as soon as possible," and the votes of the Council having been taken on such motion a majority was in favour thereof. The Council then proceeded to the consideration of the report dated May 6 last, and entered on the minutes of the Council of May 12 last, of the Committee on Alterations in and Additions to the Bye-laws relating to the Election of Examiners. Moved by Mr. Curling, seconded by Mr. Hancock, "That the report, omitting the last paragraph relating to an alteration in clause 3, Section XI. of the Bye-laws be approved and adopted." Moved as an amendment by Mr. Hewett, seconded by Mr. South, "That the consideration of such report be deferred until the Council shall have decided upon the report from the Committee on the Conjoint Board," and the votes of the Council having been taken on the amendment a majority was in favour thereof. The consideration of Mr. Gay's motion was postponed until the ordinary meeting of the Council in November. The recommendation of the Court of Examiners that a candidate of the name of Meredith Frederick Howells, who had endeavoured by offering a bribe to get the decision on his preliminary examination altered, be not again admitted to the preliminary examination was confirmed. A letter from Mr. Cæsar Hawkins thanking the Council for their resolution of the 14th ultimo was read and directed to be entered on the minutes. Mr. Solly's resignation of the office of Hunterian Orator was reported, and the President was appointed orator in his place.

City of Dublin Election.—The nomination of candidates for the seat in Parliament rendered vacant nearly two years ago by the disqualification of Sir Arthur Guinness, Bart., took place on Tuesday last. Until lately, it was generally thought that our distinguished *confrère*, Sir Dominic Corrigan, would have had a walk over, but a formidable opponent has since appeared in the person of Captain King Harman, who comes forward as the advocate of a Federal Parliament for Ireland. Sir Domiuic Corrigan, Bart., M.D., was proposed by Alderman Campbell and seconded by Sir William Carroll. Captain Edward Robert King Harman was proposed by Alderman Plunkett, and seconded by Mr. V. J. Mackey. A show of hands was taken, and was declared by the High Sheriff to be in favour of Captain King Harman, whereupon a poll was demanded on the part of Sir Dominic Corrigan. This took place on Thursday. On the evening of that day, just before going to press, we received a telegram from our Dublin correspondent informing us that at four o'clock Sir Dominic Corrigan had a majority of one thousand and fifty-eight. The poll closed at five.

The Contagious Diseases Acts (Women).—At the Canterbury Petty Sessions, seven women were summoned for not having submitted themselves for Medical examination. In six of the cases orders were made for the women to attend for twelve months; in the other the defendant was committed to prison for fourteen days, as she positively refused to undergo the ordeal.

Blue Coat School, Birmingham.—At a special meeting of the committee of this institution, held on the 16th inst., Dr. Suckling was unanimously appointed honorary Medical officer to the Bluecoat School.

Death from Hydrophobia.—The newspapers report the death of a boy, 13 years of age, who was bitten some weeks since by a retriever dog suffering from hydrophobia. Symptoms of the disease presented themselves in the boy on Thursday se'nnight. These gradually increased, and he died on Monday.

International Exhibition of 1871.—We are requested by Her Majesty's Commissioners to state that there is no foundation for the rumour that the International Exhibition appointed for 1871 is to be postponed by reason of the war. The first of the series of Annual International Exhibitions of Selected Works of Fine and Industrial Art and Scientific Inventions will take place next year, as already announced.

Medical Reform Union.—A copy of "The Retrospect" will be forwarded to any gentleman sending his address, with a postage-stamp, to Mr. Lloyd Owen, 9, Easy-row, Birmingham. The balance due on account of the Birmingham Memorial is £12; subscriptions towards defraying it may be forwarded to Mr. Lloyd Owen, or to the Treasurer, Mr. Arthur Oakes, 9, Old-square, Birmingham.

Professor Halford's Treatment of Snake Bites.—In an interesting communication to the *California Medical Gazette*, Dr. E. H. Hall gives some particulars of cases in which he had successfully employed Dr. Halford's treatment. He says:—"With respect to the operation, I have found from experience that the injection may be made into any vein, and not necessarily near the spot where the bite was inflicted. This may be determined by the Surgeon, who is at once able to learn to what extent the poison is absorbed. In one case a young man in the habit of going barefooted was bitten on the great toe, close to the metatarsal joint. I injected the solution into the median-cephalic vein of the left arm with success." Dr. Hall observes in conclusion, "The great success this treatment has achieved, undoubtedly ranks it as one of the greatest discoveries in the practice of medicine in modern times. In many parts of America, where venomous snakes abound, it is well worthy of trial, and I doubt not its application would be the means of saving many lives. It yet remains to be proved whether it may not be useful for other diseases; and while being heartily thankful that I have not lived in a country where hydrophobia occurs, yet, did a case come under my notice, I should certainly give Professor Halford's method a full and careful trial, with, I confess, not a little hope of success."

Nature remarks that the fearful destructiveness of so-called "natural" causes of death, as compared with even the most sanguinary battles, is shown by the fact that during the siege of Sebastopol the French army lost 20,240 men by death in the field or as the result of their wounds, 75,000 from epidemic and other diseases. During the Italian campaign of two months the French losses were 3664 killed or mortally wounded, 5000 from disease.

EXAMINATION OF CANDIDATES FOR HER MAJESTY'S NAVAL MEDICAL SERVICE.

Anatomy and Physiology: Ma. Busk.
Monday, August 8, 1870, 10 a.m. to 1 p.m.

1. Describe the dissection required to expose the parts (muscles, nerves, and vessels) contained in the spheno-maxillary fossa; also describe the parts thus exposed in their relative positions.
2. Describe the fascia of the perineum (superficial and deep), explaining how its attachments or connexions limit the extravasation of urine in certain directions and permit it in others.
3. Give the origin, courses, distribution, and anastomoses of the following arteries:—(*a*) Ascending pharyngeal; (*b*) lingual; (*c*) middle meningeal; (*d*) internal mammary; (*e*) superior mesenteric.
4. Describe the course of ossification of the femur, stating the periods at which ossification commences and is completed in the various epiphyses, and the times at which each becomes finally united to the shaft.
5. State the conditions upon which myopia, presbyopia, and hypermetropia respectively depend, and describe the optical appliances needed for correct vision in either case.

Medicine: Dr. Parkes.
August 9, 1870, 10 a.m. to 1 p.m.

1. What is meant by embolism? Mention the chief vessels which may be affected. Describe the symptoms and pathological conditions following complete occlusion of the middle cerebral artery on the left side.
2. Contrast the physical signs of pleurisy with effusion on the left side and extensive pneumonia at the base of the left lung.
3. What are the chief forms and causes of ulceration in the following situations:—(*a*) Stomach; (*b*) ileum; (*c*) colon; (*d*) rectum. How would you treat a case of obstinate vomiting supposed to depend on ulceration of the stomach?
4. What are the chief pathological conditions of the kidney producing Bright's disease; and what would be the chemical and microscopical characters of the urine?
5. What are the diameters of the normal female pelvis? How would you examine in order to ascertain the dimensions, and what is the smallest size which will allow a good chance of delivery at full time?
6. For what purposes are preparations of silver and zinc used externally and internally? Give the chief Pharmacopœial preparations, doses, and the precautions to be attended to in using them.

Surgery: Ma. Pollock.
Monday, August 8, 1870, 2 to 5 p.m.

1. Describe the symptoms, physical and general, of a case of fractured ribs. What would be the evidence of injury to the lung; and what the treatment with such complication?
2. A man receives a bayonet wound of the lower third of the thigh, followed by recurrent arterial hæmorrhage: what treatment should be adopted in such a case?
3. What are the pathological conditions which give rise to senile gangrene? In what respect, and for what reasons, would the treatment of a case of traumatic gangrene of the leg differ from that of senile gangrene?
4. A patient, having suffered from old-standing stricture of the urethra, becomes the subject of extravasation of urine—describe the symptoms which would be present, the direction in which the extravasation would extend, and the treatment which should be adopted.
5. Describe the symptoms of syphilitic iritis, and its treatment.
6. Describe the symptoms which accompany the condition known as "chronic rheumatic arthritis" of the hip-joint, and the pathological changes found in any joint so affected.

Natural History, Voluntary: Da. Thomson.
Tuesday, August 9, 1870, 2 to 5 p.m.

Zoology.

1. Describe the mode of fecundation of reptiles and fishes.
2. Give an account of the principal modifications of the respiratory apparatus in the animal kingdom.
3. In what forms is phosphorus met with in animals, and in what parts of the system does it occur? what function does it perform?
4. Give an account of the nature of the principal nitrogenous and non-nitrogenous secondary elements which enter into the articles of food in common use.

Botany.

5. What are the essential differences between plants and animals?
6. Describe the structure of the trunk of an oak, a palm, and a tree fern.
7. What is yeast? Describe its structure and development, and its action upon sugar.
8. What are the essential characters of *graminea*?
9. Enumerate the principal economic products of *umbella Ferræ*, giving in each case the name of the plant and the part which is used.
10. Explain the structure of a fig, a mulberry, a pineapple, and a pine cone.

Physics, etc.

11. Describe the most remarkable phenomenon of radient heat,
12. What is the composition of the atmosphere? How is it modified by altitude and humidity.
13. What changes take place in the length of the day at different seasons of the year in the torrid, temperate, and arctic zones respectively, and to what cause are they due?
14. Give an account of the area occupied by the chalk formation in Great Britain; and explain the manner in which it is supposed to have been formed.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Sheridan Muspratt has written us a letter in answer to some observations by Dr. Macpherson, in his recent paper on "Chalybeate Waters," published in our number for August 6, on the chalybeate spring of Harrogate, called by Dr. Muspratt's name. Dr. Muspratt's letter contains a number of quotations from the late Dr. Kennion, Sir William Lawrence Dumas, and others, as to the medicinal value of his spring. He insists that no other potable water contains the proto chloride of iron, and consequently that the Harrogate chalybeate is *sui generis*. He believes that the other salts contained in the spring do not interfere with its medicinal properties.

An Old Subscriber.—1. It is probable that no mechanical means would be of service. 2. The works of W. Adams and B. Brodhurst.

A Reader of the Medical Times and Gazette.—He must pass the examination of the Pharmaceutical Society.

Brodie.—No notice has yet been given of an examination to be held in January next for admission to H.M.'s Indian Medical Service.

Dr. Drake, Montreal.—Your letter, with enclosure, has arrived safely.

R. C.—The case was tried before Mr. Baron Park. The verdict was for the defendants on the ground of non-liability.

Juvenis.—There are free scholarships at Charing-cross Hospital. Particulars may be obtained by application to the Secretary.

A Candidate.—The selection is by ballot. Three-fourths of the votes must be in favour of the admission.

Nota Bene.—The question is one that can only be answered by a fuller exposition of the case. It is probable that some points of law will have to be discussed before a proper conclusion can be arrived at. If a copy of the deed be forwarded, the subject shall receive attention.

T. B. R.—The "Sydenham College" existed for only a short time. Marshall Hall was the lecturer on Medicine.

L.R.C.P. Lond.—Sir Henry Halford, Bart., M.D. Oxon, was elected President in 1820; Dr. Paris, M.D. Cantab, succeeded him in 1844; Dr. Mayo, M.D. Oxon, followed in 1857, and was succeeded by Sir Thomas Watson, Bart., M.D. Cantab., in 1862. Sir James Alderson, Bart., is the President now.

Case of Ruptured Kidney (?) Recovery.

Communicated by W. Bevan Lewis, L.R.C.P. Lond., &c., House-Surgeon to the Rotheram Dispensary.

We watch with great interest those cases, where operative procedures, on the part of the Surgeon, restores the patient to his former health and comfort, yet equally satisfactory do many cases appear, where, operative means being useless, the patient must simply be placed under the most favourable circumstances for receiving that aid which Nature alone can supply. Can there be a more interesting study for the Surgeon than that

of watching this *vis medicatrix naturæ*, of computing Nature's resources under difficulties, and estimating the value of interference on his own part in aiding these powers? The case to which I now refer is one of those numerous examples where Nature and not the Surgeon carries off the palm.

W. M., aged 16, a farm labourer, received a violent kick from a young horse. Being at a short distance from the animal he received the full force of the blow upon the right iliac region; this occurred at 5 a.m. on Sunday, and complaining of great pain and faintness he was carried to bed and I saw him at 2 p.m. the same day. During this interval he had passed by the urethra about 16 ounces of pure, florid blood. On examination the pulse was 98, sharp and irritable; he complained of being hot and feverish, his tongue covered with a thick creamy fur, and there was a constant aching pain over the right hypochondriac and iliac regions, which became sharp and lancinating during deep inspiration, as also by pressure over the part. There was also much nausea and vomiting of greenish bile. Ordered him to be kept perfectly quiet on his back in bed; to keep a piece of ice constantly in his mouth, his dietary limited to barley water and cooling drinks. The abdomen was covered with cloths dipped in an evaporating lotion and laudanum and the Pilula cal. c. opio was ordered to be taken. At 3 p.m. he again passed about 6 ounces of pure blood.

Monday.—Slightly delirious, tongue dry and furred, pulse 186, sharp and wirey, characteristic of peritonitis. There is a great amount of tympanitis, and the pain is entirely localised to the seat of the injury.

Tuesday.—Tympanitis extreme, pain more acute but still confined to the right hypogastric and iliac regions. Pulse hard, 150; tongue dry and furred. The bowels have been kept quiet; but he has passed a normal amount of turbid urine containing a little albumen. An enema was given this evening to ascertain the state of the intestinal canal; it however brought away no fæcal matter.

Wednesday.—The pain is much less severe, but the flatulent distension of the abdomen is still great. Pulse 120, soft, full. Tongue covered with a thick white fur. He complains of great nausea, and vomits frequently large quantities of bile. A linseed poultice, besprinkled with laudanum, was applied to the abdomen, an enema was again administered, and iced champagne ordered to be taken frequently in small doses.

Thursday.—The bowels were opened freely, three times this morning, a large quantity of yellowish offensive fæcal matters being passed. The stools contained no trace of blood. The tympanitis has subsided, the pain is hardly felt; pulse 110, soft and full. Urine clear and limpid; no albumen. Feels better, is more lively and cheerful. From this date he has gradually improved, and he is now progressing very favourably. Like many other serious cases, the above teaches us how wise and safe a nurse we possess in Nature, and we have yet to learn the full powers she has at her disposal. The more perfectly this lesson is mastered by the Surgeon and Physician the sooner shall we learn to discriminate between those cases where the interference of our art is really required.

COMMUNICATIONS have been received from—

Mr. John Woodman; Dr. F. Royston Fairbank; Mr. J. Chatto; Mr. H. Arnott; Mr. Walter Tyrrell; Dr. May; Mr. G. F. Brodie; Mr. Morrant Baker; Dr. Bakewell; Dr. A. Mackintosh; Dr. Muspratt; Mr. Funneaux Jordan; Mr. Sampson Gamgee; Dr. W. Hitchman; Dr. C. B. Taylor; Dr. Campbell Black; Dr. Edward Waters; Mr. J. W. Garnett; An Old Subscriber; Mr. J. Perkins; Mr. R. Ellery; Mr. T. E. Espin; A Reader; Dr. W. Campbell; Mr. Weightman.

BOOKS RECEIVED—

Beale's Health and Longevity, Second Edition—Niemeyer's Lectures on Phthisis—Daji on Ailantus Excelsa, a new Indian Remedy—Dr. Bridges' Catechism of Health, adapted for Primary Schools—Dublin Quarterly Journal of Medical Science, August.

NEWSPAPERS RECEIVED—

Medical Press and Circular—Nature—Pharmaceutical Journal—Chemist and Druggist—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

August 20. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women 9½ a.m.; Royal London Ophthalmic, 11 a.m.

22. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

23. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

24. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

25. *Thursday.*

Mu *ns* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Bar*yal* Orthopædic, 2 p.m.; West London, 2 p.m.; University College *Hospital*, 2 o.m.; Royal London Ophthalmic, 11 a.m.

26. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 13, 1870.

BIRTHS.

Births of Boys, 991; Girls, 1075; Total, 2066.
Average of 10 corresponding weeks, 1860-69, 1925·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	755	739	1494
Average of the ten years 1860-69	733·9	693·1	1427·0
Average corrected to increased population	...	...	1570
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	4	26	...	3	1	5	1	41
North ...	618210	3	9	36	5	5	8	11	1	61
Central ...	383324		3	13	1	2	1	1	2	17
East	571158	5	2	8	1	3	1	2	...	62
South	773175	3	4	35	2	12	1	4	5	105
Total	2803989	11	22	118	9	25	12	23	9	289

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·915 in.
Mean temperature	64·5
Highest point of thermometer	79·1
Lowest point of thermometer	56·3
Mean dew-point temperature	56·3
General direction of wind	N.N.E.
Whole amount of rain in the week	0·62

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 13, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Aug. 13.	Deaths Registered during the week ending Aug. 13.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2036	1494	79·1	56·3	64·5	18·05	0·62	1·57
Portsmouth ...	122084	12·8	62	58	82·8	52·6	65·0	18·33	0·32	0·81
Norwich	81087	10·9	42	49	77·5	55·0	63·7	17·61	0·00	0·00
Bristol	171382	36·6	117	106	81·8	50·0	63·7	17·61	0·17	0·43
Wolverhampton ...	72390	21·5	46	39	83·9	49·6	64·5	18·05	0·05	0·13
Birmingham ...	369604	47·2	240	215	82·6	51·6	64·6	18·11	0·12	0·30
Leicester	97427	30·4	95	79	82·7	49·0	64·8	18·22	0·29	0·74
Nottingham ...	88888	44·5	59	55	83·7	50·6	65·2	18·44	0·13	0·33
Liverpool	517567	101·3	311	420	79·3	49·0	63·3	17·39	0·00	0·00
Manchester ...	374993	83·6	238	222	...	...	...	...	...	...
Salford	121580	23·5	89	60	85·5	48·1	64·7	18·17	0·10	0·25
Bradford	143197	21·7	149	121	80·2	53·3	65·0	18·33	0·01	0·03
Leeds	259527	12·0	284	204	82·0	51·0	65·2	18·44	0·00	0·00
Sheffield	247378	10·8	184	176	82·0	49·7	62·9	17·17	0·02	0·05
Hull	130869	36·7	90	91	76·0	48·0	61·2	16·22	0·04	0·10
Sunderland ...	100979	30·5	68	31	...	...	...	...	...	...
Newcastle-on-Tyne	133867	25·0	114	62	72·0	53·0	60·3	15·72	0·00	0·00
Edinburgh	178970	40·4	119	70	78·7	50·0	62·9	17·17	0·00	0·00
Glasgow	468189	92·5	347	293	79·2	50·5	64·3	17·94	0·00	0·00
Dublin (City, etc.*)	321510	33·0	167	119	86·9	39·0	65·0	18·33	0·12	0·30
Total of 20 Towns in United Kingd'm	7216325	33·8	4887	3965	86·9	39·0	63·9	17·72	0·11	0·28
Paris—Week ending August 13... ...	1889842	242	...	1122	...	...	...	...	...	...
Vienna—Week ending August 6 ...	622087	167	...	313	...	...	73·9	23·25	...	...
Berlin—Week ending August 11 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·915 in. The highest barometrical reading was 30·10 in. on Saturday morning, and the lowest was 29·68 in. on the evening of the 7th instant.

The general direction of the wind was N.N.E.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

BY HER MAJESTY'S ROYAL LETTERS PATENT
AND BY SPECIAL APPOINTMENT TO HER MAJESTY
AND THE ROYAL FAMILY
THE EMPRESSES OF RUSSIA & FRANCE
&c. &c.

JOHN WARD

5 & 6, LEICESTER-SQUARE, LONDON.

No. 12, Ward's Patent Albert

Lounging Chair, the most simple and luxurious extant, is fitted for the Drawing Room, Boudoir, Cabin, or Camp; is made in Wood, Iron, or Brass, and folds into a small compass for shipment. From 4½ Guineas.

No. 17, a Four-wheel Victoria Pleasure-ground Chair, mounted in a very light Iron-framed Carriage upon C and patent India-rubber Springs, is either drawn by Hand or Animal, and is the most elegant and easiest Chair made.

No. 16, a ditto, upon three wheels, mounted same as four wheels, on C and India-rubber Springs.

No. 9, a Bath Chair, with Leather Head, and Folding German Shutter.

No. 18, a Sofa Britska Spinal Carriage with the inside Tray made to take out and in, on which an invalid may be taken from her room to the carriage.

No. 8, Ward's Improved Operating Dentist Chair, suitable for a Child or Adult.

Nos. 10, 10, Sketch of Earl's

General Invalid Couch or Bed, made with or without a Convenience; it adjusts the back seat and legs to any given position by means of machinery, and is recommended by the Faculty as being the most complete Bed ever made for confirmed Invalids, or for Fractured Limbs.

No. 11 is Ward's Patent Reclining Chair, with Shifting Elbows for more easily getting on and off the Chair when the leg-rest is drawn out, as shown in the drawing.

No. 7 is an elegant Patent Recumbent Chair.

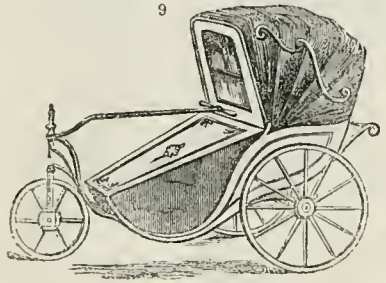
Nos. 13, 13 is a Couch-Chair or Bed invented by Dr. Hester, and may be placed in any position by the Invalid without the assistance of a second person.

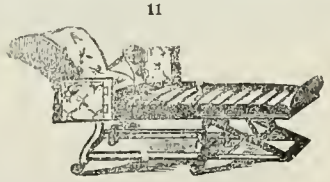
Nos. 2, 3, and 4, are all Self-Propelling Chairs, upon the best and most scientific principles; either may be used by a child eight years of age with perfect ease.

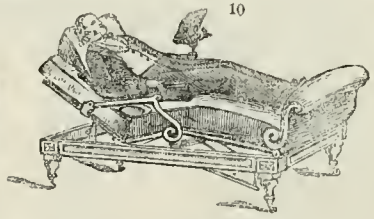
No. 24, Ward's Improved Child's Perambulator, with Patent Parasol. A variety always on hand.

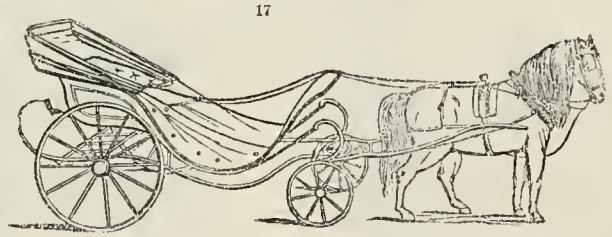
No. 14 is the simplest and best-constructed Chair for carrying invalids up and down stairs, the lower handles for level ground, the upper ones for ascending or descending a staircase; the sketch conveys the exact idea; it is also made portable for travelling. Several other kinds are always in stock, upon various principles.

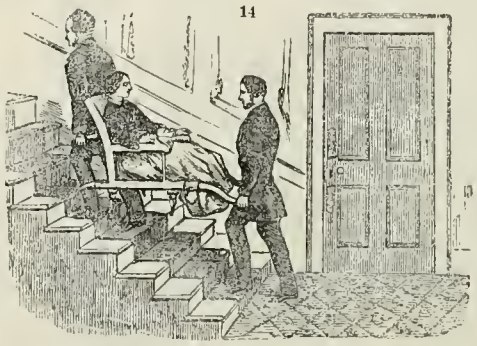
N.B.—The largest assortment in the World of Invalid Chairs, Carriages, Crutches, and Beds, always on hand, for Sale or Hire. Established more than a century.

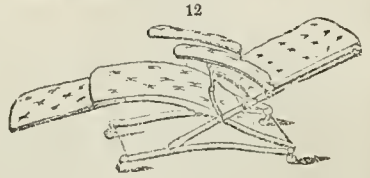


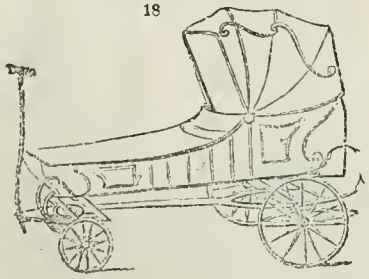


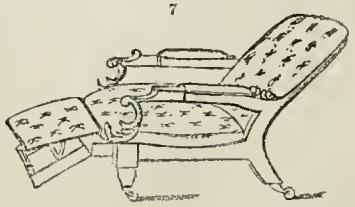


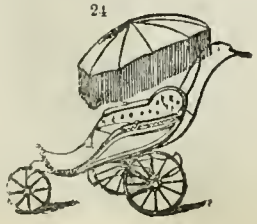


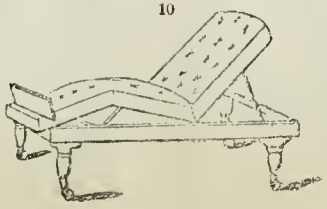


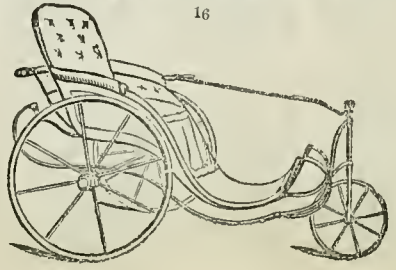


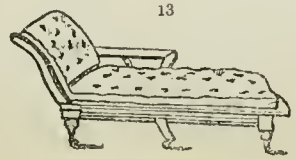


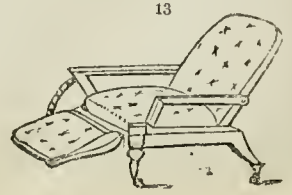












ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

LECTURE IV.

We think of the processes of life as referable to three kinds of action:—1. Formation; 2. Nutrition; 3. Function. We always speak of these three as distinct. Now, though we must think of formation and nutrition as different, yet nutrition is only the continuation of the forming process, just as the formation of a rainbow is not different from the maintaining of it; it is all along the same light broken by raindrops. And so, if we could see what is in a bird's egg, we should see the bird. If our senses could develope out into as effectual and various powers as a little heat makes the bird's egg develope out into, then we should no doubt see all the bird in the egg, but our senses are, we know not how, coarse. But if formation and nutrition thus are like different views of the same thing, certainly it appears that nutrition and function must be different. The keeping up of the shape and the action of the shape kept up we shall surely see as different. There is an exception certainly in the case of tissues, whose duty is only to keep to a certain mechanical form; with them function is only the being what they are. Indeed, in the proper sense, it is perhaps better to say they have no function. But where a proper function is discharged by a tissue, the function is so distinct from the nutrition that we look to find some mark of the difference in the tissue.

Now we believe that we do see such a mark of the difference; indeed, that we can discern the seat of nutrition and the seat of function in all tissues.

First, we will reflect that we should expect the seat of nutrition to be constant, because formation or nutrition is the same everywhere. But we should expect the seat of function to vary in the different tissues, seeing that function itself varies so much. If we look over the several tissues one thing forces itself upon our attention. In all the elementary forms of tissue, however they vary, the nucleus is constant. The intercellular substance is not constant; it varies exceedingly. The cell and its contents vary also exceedingly. But the nucleus is singularly constant in its form and size and chemical reaction.

Now, if we extend our observations a little further, and instead of only considering the completed tissues we follow their development, we again are as much as ever struck with the same thing—the *constancy of the nucleus*. It comes first, whether the cell that is to arise is arising by division of the parent cell or by "endogenous" production; the first thing to take the new shape is the nucleus.

If we turn to the other end of cell life, when the cells are aged and decaying, we find again that senescence first seizes the outer parts, and the nucleus persists as long as the cell shows any vital activity, while during the life and action of the cell the nucleus takes no part in the chemical changes and mechanical alterations which the cell and the intercellular matter undergo in accordance with the nature of the office they subserve.

If, again, we consider the changes that disease brings in cells, we find that the parts which first give way to degenerative changes are the outer parts, and the nucleus can be found in them when searched for properly, even after they are a good deal spoilt. This you may see very well in cartilage cells when surrounded by urate crystals in gouty joints, or when surrounded and obscured by lime salts in the earlier stages of calcification of cartilage, or in other cells when fat grains have, in the ordinary course of fatty degeneration, hidden the nucleus; in all these cases suitable solvents will bring it again to view by dissolving the fat, or lime, or urates.

If, further, we take the effects of reagents, such as water or acetic acid, we find that the cell-wall will change, burst, or otherwise disappear, but the nucleus remains set free. It is worthy your practical notice this ready change of cells under reagents; we may, by using water in examining tumours, etc., make great mistakes as to the real components of the substance, and talk of free nuclei and so forth, when we ourselves have set the nuclei free.

Now, in the perfect tissue, the cell, on the other hand, has varied into the most different forms—stellate, pyramidal, caudate, or has joined others and lost its identity. Then we can also see that the forms of cells and their functions are plainly useful for the functions the tissue discharges.

Now, as the nucleus comes first, and is the same in all, and loses its life last, and undergoes no change of shape, and, lastly, is always to be found in all tissue elements, whether these are still of cellular structure or not, so long as the nutritive changes of the tissue continue—if we sum up these conditions, we find a good case made out for believing that the nucleus is necessary to the nutrition of the cell or its modified representative. We can scarcely avoid believing that the nucleus is the focus or hearth from which the self-nourishing power of the part radiates as far as the limits of the cell territory range. If we like to put the view in this way, that the nucleus is tissue as yet unformed, and about to take shape and function, then we shall very nearly express the view that Dr. Beale teaches. But whether we think with him that the nucleus presents a stage in the changes of the matter of the cell, or whether we think that it is the site of a power that it diffuses around it in all directions, in a way like that in which the nerve-cell diffuses powers along its prescribed tracts, we must, I think, interpret the universality and constancy of the nucleus as signifying that it is the seat of nutrition, while the shape and other direct characters of the cell and its contents show that these discharge the functions of the tissue.

Now see what a great gain this is—pathologists have always wanted a uniformity. Once it could only be found in the blood or in the nerves, and those who held to the blood for their great general truth were fluidists, and those who looked for it to the nerves were solidists. But then their uniformity was too uniform, for the difficulty was to know why, if everything came out of the universal blood, everything did not seem alike in all places. But now we have the true uniformity, which sets that difficulty at rest, for while the nucleus is uniform, its formed tissue varies so that we find a uniformity in the midst of, and subserving and governing variety, and there can be no more fluidism or solidism, for we find in the fluids self-governing solid cells, and in the solids mobility of parts swelling, imbibition—changes, in short, that belong to fluids.

Now, as we see that the initiative power of life and of its derangements lies in the cellular, and especially the nuclear elements of tissue, we must first well understand these elementary structures of the tissues to know the proper pathological history of each; so we will pass on to consider the materials of structure and the composition of the several tissues.

If we consider the structure of the tissues in what is known as minute anatomy, we find that every tissue has its own proper elementary composition, and each tissue contains within it some component that is peculiar to it, and whose presence is necessary to it. These are the *elements of tissue*, and we must have a clear view of their nature and modes of blending and complication.

Do not call these *elementary tissues*; none of them are tissues. They are in every case (nearly) fragmentary when taken alone. Even epithelium is not an exception. For as inquiry is more exact, evidence is accumulating to show that the cells of epithelium in some cases join with nerves in structural continuity. This is shown to occur in the Schneiderian membrane and in some other parts, the papillæ of the tongue for instance. In this way we may better understand how a surface so thickly coated can be so sensitive. I have seen large epithelial cells of cancer of the glottis drawn out into processes continuous with the processes of connective tissue cells.

But in nearly all the tissues you find several of the elements of tissue combined. Fat consists not only of the well-known fat-cells, but of areolar fibres and vessels also. Muscle tissue is not only the proper fibres, but also areolar tissue, vessels, and nerves. In the physiology of these tissues we are apt to lose sight of this or regard it as a trifling point, for the proper function of each tissue, which is the only concern of physiology, depends on the peculiar element that gives it its characteristic structure. But the knowledge of the tissues for the purposes of physiology will not suffice as a knowledge for the purposes of pathology. It often happens—indeed, it is the rule—that elements of the tissues, which are all important for physiological purpose, are of little significancy in regard to their tendency to disease. Take as an instance the tissue of brain. Physiologically your attention at once turns to the cells and tubules of its properly nervous components. To the physiologist it is scarcely more than a complex system of batteries and wires, and he need give but a cursory notice to the fact that these, his wires and batteries, are always set in a certain

homogeneous looking matter with a few nuclei in it; and again he would think of the vessels that supply the nerve tissue as a matter of course. These are only to him padding and supply-pipes. But in the discoverable diseases of the brain this is the truth—that the homogeneous matter which embeds and connects the nerve cells and fibres is the principal, nay, almost the exclusive, seat of pathological changes. And the vessels are in a very great number of these changes the main agents in bringing about the disease of the tissue. To the end that we may understand the pathology of the several tissues, then, it is very necessary that we should distinguish between the elements of tissue and the elementary tissues.

The importance of knowing all these elements well, depends on the force of this great law. *Every element carries with it into the tissue it goes to form its own proper liabilities to disease.* The greatest advance pathology has made has been in the recognition of the relations between the structural elements of the tissues and their diseases. What insight the discovery of normal structure has given us into physiology! The same insight changed structure gives us into pathology.

Now there are a few substances in the bodily structure which are made of a single tissue, massed in bulk and unmixed with any other. But the number of these tissues is very small, and their quantity is very small also. There are but three substances which properly belong to this class. These are cartilage and crystalline lens and mucous tissue. I may be told that I am overlooking the epithelial structures; but in the glands these are much commingled with vessels, etc., and even on the surfaces and in the shape of hairs and nails they are so connected with and dependent upon the beds from which they arise that they cannot in any useful way be viewed as separate. Indeed, the epithelium of nails and hairs to all intents and purposes is dead. The cells persist, but, if I may so speak, they are but little cenotaphs of their former selves.

Now if we take and consider the *elements of tissues*, and compare them, keeping the combinations of them in tissue manufacture out of view, and thinking only of the elements severally, we shall soon perceive that they fall into three groups. For some of them are *cellular*, being made up of cells only, without anything between them. Others are not made up only of cells, but of cells with an important quantity of material between them. These we will call *intercellular*. Others yet have no longer any cellular forms in them when they are fully developed; but by the union of the original cells in longitudinal series, long tubes are produced, in which peculiar contents are found. These we will call the *tubular* elements.

The *cellular* elements are, the several kinds of epithelium, the elements of crystalline lens, of fat, the elements of the thyroid, spleen, and lymphatic glands, suprarenal capsules, etc., and of the blood. I will not describe these, as you know them very well, but only remind you that they retain their cellular form throughout the whole of their life, and remain independent of each other, not joining in continuity, though lying close together. As to the elements of the suprarenal capsules, spleen, thyroid, etc., I don't know whether they should be considered as special cellular elements developing special organs, or whether, as Kölliker suggests, they should be viewed as having the relation of modified connective tissue cells to the intercellular tissue they have in them. But this view has, at least, the advantage of giving us a clue to the curious irregularity that the spleen and capsules are liable to. I mean the occurrence of multiple spleens and capsules—"spleniculi" and "capsuliculæ." Seeing the casual accidental looking multiplication of spleens and capsules, one is prepared to think of them as arising in the connective tissue of the region by some very simple kind of change in its elements.

Now, in all these tissues which these elements form, the proper function of the tissue depends on the cell and its contents. The function is discharged by the cell itself. The cell generally shows peculiar chemical rather than dynamical powers, and the mode of nutrition consists of a reproduction of the cellular elements. It has to grow, and it is then complete; its product is *so much* of a certain stuff. The whole shape and action is, as it were, nuclear. The function may be expressed as multiplication. It is curious how little we know for certain whether the elements of a part are built up permanently, or whether continually replaced.

The *intercellular* elements of tissue show not only cells, but important matters between the cells. I need not give detailed descriptions of these, as they are already well known to you.

1st, and most simply, we have cartilage and fibro-cartilage, which are found quite pure in the body, free from mixture with other elements of tissue. In the composition of these, nucleated cells are found, surrounded by an intercellular substance, which is either hyaline or more or less fibrillated. But observe that the properties of the tissue depend on the intercellular substance.

2nd. Next, "mucous tissue," as it is called. This is only found in the vitreous humour in the fully developed body, and even here its structure is often imperfect, or at least very difficult to show; but it is plentiful in the young fœtus, and it composes the gelatinous substance of the umbilical cord. It precedes the areolar tissue as a stage in its development, especially where fat is going to arise, as in the subcutaneous adipose tissue. It consists of clearly-defined branched and anastomosing nucleated cells, embedded in a glutinous substance which contains mucin. The relation of this mucous tissue to fœtal fat is interesting, because we find that many fatty tumours contain more or less of it, apparently in the growing parts of the tumour; and also because the tumours composed of mucous tissue (myxomata, or some forms of "fibro-cellular" tumours) show a marked disposition to the production of true adipose tissue. So that we not infrequently meet forms intermediate between myxoma and lipoma, fœtal-fat tumours indeed.

3rd. Next, as very simple and plainly comparable to the last two, is the dense substance which forms the essential part of the immediate surface of the true skin and of mucous and serous membranes. The papillary layer of the corium we may take as a representative. This substance is composed of cells, with processes extending from any one to its neighbours, so forming a network, which is embedded in a homogeneous firm material, rich in gelatine, and differs thus from the mucous tissue, although the microscopic appearances of the two are very like each other.

There cannot be a doubt of the close resemblance of all this group of structures to each other, and there is another which is very like them—namely, the deep layer of periosteum and perichondrium. The only difference in these is the greater closeness and firmness of the substance, and the arrangement of the elements parallel to the surface of the bone in layers.

Another tissue element which does not at all evidently resemble these when its physical characters only are taken—nay, which has no physical characters that can be traced to itself properly—has nevertheless a real identity and a close similarity of structure with these. I mean the nucleated homogeneous matter that cements the minutest elements of parenchymatous organs, such as the brain, or the liver, or kidneys; this substance in the brain has received the name of neuroglia or nerve cement. It is very soft, and except in the lining membranes of the ventricles it exists in small quantity, and as one generally is looking rather at the fibres and cells of the brain it is apt to escape observation, as the curiously shaped spaces between printed letters are overlooked by readers so habitually that you cannot run your eye along a line and catch up the shapes of them. In reading letterpress that does not matter, but in the case of the intermediate material between the nerve fibres, the homogeneous soft matter is really one of the intercellular tissue elements, and possesses in consequence important properties which make it necessary that we should recognise its nature.

Now, though these certainly are very like each other, proof would be wanting to show that their resemblance is more than superficial. But this proof comes in a very striking manner through the fact that all these forms of tissue graduate in the most imperceptible way into another kind of tissue, so that where either of them joins this kind of tissue you cannot find a line at which the one begins or the other leaves off. This tissue, which so is continuous with them all, is the common connective tissue.

When one makes a dissection and finds connective tissue in its ordinary way lying between a bone and the skin over it, one would say the tissue separated the skin from the bone as a thing foreign to both intervening and marking their difference. But careful microscopic examination shows that it rather is a link of union, or more a proof of real identity of plan in structure of the two, for the deep layer of the corium and the surface of the periosteum join, or rather constitute, the areolar connective tissue, and here it is best seen that this connective tissue, so different in appearance and in physical properties, has really the same cell-elements as the more homogeneous materials that it thus identifies itself with. The obvious cells of periosteum can be followed out into the nearest part of connective tissue, and will lead to the cells that are present in it, and so be the best means of discovering these. When the eye has become accustomed to detect them—which it can very well do without reagents, though acetic acid renders them plainly visible at once, at least their nuclei—then the real identity of connective with the other intercellular tissues will be seen. The connective, then, appears as an intercellular tissue element, whose intercellular

part is fibrillated into irregular bundles—those wavy bundles which we are all so familiar with. These, with a few elastic fibrils, were once thought to be the whole substance of connective tissue, and for the discharge of its functions in the body they are sufficient, but the network of cells, which we now know is always present in this tissue, is almost the only constituent which concerns us as pathologists.

The real identity thus established among tissues, which are similar in plan and convert themselves under your eye the one into the other, cannot be further proved. The admission of this identity on these grounds constitutes the law of Reichert, which is thus stated—"The continuity of tissues must be regarded as a fundamental proof of their identity." This law, however, does not hold good as so stated. The *continuity* must be supplemented by a *correspondence* in elementary structure, such as we see in this class of intercellular tissues which I am enumerating, for the most diverse tissues are continuous. Thus the muscle fibrils of the limbs of insects are continuous with their chitinous tendons, and neurilemma is continuous with sarcolemma.

There is another tissue, which by the same continuity and correspondence of elements is brought into this intercellular group of tissues—namely, bone. In the process of ossification out of periosteum the simple relation of bone to periosteum is beautifully seen. I have here a specimen of ossifying periosteum in which several single periosteum-cells are simply covered with solid pellucid earthy matter, making little spindle-shaped bone-cells, quite discontinuous with the bone which lies near them, having its lacunæ developing by changes in these cells of the periosteum.

In the more complex processes of ossification out of cartilage, where so much tedious and seemingly needless complication exists; the cartilage first calcifying, then the lime-charged tissue removed by vacuolation, and the bone then forming in the hollow spaces produced by the areolation of the cartilage; even in this process the identity of the cell element remains. I have seen plainly and clearly the cell of the cartilage tissue persisting in the vacuole formed in the calcified cartilage. The development from it of the marrow cells that fill up the vacuoles and then change to bone lacunæ-cells, after wearing for a time the form of periosteal tissue, may be seen if one watches carefully.

Now in all these intercellular tissues the use of the tissue depends on the physical qualities of the intercellular material. All these tissues have a purely mechanical use. They cannot be said to have a function. After formation and growth are complete, their only function is to remain as they are. Their ultimate aim is *maintenance*.

Then the third kind of tissue elements, which we have called *tubular*, are capillary, muscle, and nerve.

1. Capillary vessels are composed of cells which have made a mutual connexion to form tubes. The nuclei of the cells are still seen on the capillary wall. They grow out of the connective tissue-cells. I have seen this process in the dorsal fin of young salmon, and watching the same connective cells (or cells that looked just like the stellate cells of connective tissue) during fourteen days, I have seen an individual cell slowly communicate with a capillary arch, and the blood make its way into it. The changes in this cell took about four days to complete themselves. I thought I made out that the contents of this cell became two blood-corpuscles before the communication was made. How far the capillary has active dilating powers is still doubtful. Important authorities, as Schiff, Lotze, and others, believe in such powers. The capillaries appear to retain permanently their cellular composition, and to be permeable, and we must not be hasty in setting them down as mere dead tubes.

2. *Muscle fibres* are tubes of sarcolemma. On the inner surface of this are nuclei, set at pretty regular intervals. They are best seen in the heart; on the muscular fibres of the heart a cluster of brown pigment grains is very apt to occur around the nucleus, and this pigment easily guides attention to the nucleus.

3. *Nerve fibres* are tubes with a very delicate envelope, on which are nuclei; these cannot be made out except by the use of nitric acid, and then with great difficulty, except in early periods of life in some creatures—as tadpoles, for instance—where Kölliker has followed out the development of the nerves of the tail from nucleated cells, the nuclei persisting after the fibre is formed.

In the case of nervous and muscular tissue there is the same evidence of fundamental identity as are found in the intercellular tissues, for the nerve fibril can be seen to join the muscle fibril in absolute continuity, the neurilemma running on as myolemma, and the contents of the tubes meeting and coalescing.(a)

Now all these tubular tissues, in addition to production of a peculiar material, like the cellular, and the maintenance of a certain shape, like the intercellular tissues, have further a dynamic action to perform. Their function or purpose may be described as dynamic.

Thus, in a way, we see that this arrangement of elements of tissue into cellular, intercellular, and tubular, responds to their general powers and history; so that *the cellular* are those that produce so much of what is wanted for its physical or chemical qualities. Their function is multiplication, to get more of the same kind of matter. *The intercellular* are those that keep the mechanical shape, and maintain the connexions of the parts of the frame. Their function is maintenance, to remain as they are. *The tubular*, when they come to take shape, have certain powers that they continue to exert. Their function is to act dynamically, and their nutrition seems to be very opposite to that of the cellular, for they do not die away by perishing of their cells, but by *integral substitution*.

LECTURES ON DERMATOLOGY,

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Lecture V.

II.—DISEASES OF FUNCTION AND APPARATUSES.

(*Continued from page* 117.)

From mere defect of nutrition of the integument, we may pass on to another form of aberration of nutrition, or perverted nutrition, in which there is an increase of bulk of the skin, a partial excess of nutrition—in other words, a state of *hypertrophy*, and the hypertrophous growth is sometimes simply physiological, and at other times pathological, sometimes involving the whole thickness of the skin, and at other times only individual parts or separate tissues.

The simplest example of the hypertrophous growth that can be adduced is that of the common tegumentary *mole*, which is sometimes congenital and sometimes acquired—that is, it may become developed at any period of life; it is nothing more than a simple growth of the skin limited to a circumscribed spot, and ranges in size from one or two lines in diameter to as many inches, having an elevation rarely exceeding a line. Sometimes the mole corresponds in appearance with the neighbouring skin, only differing from it in bulk, *nævus cutaneus simplex;* at other times, its most striking characteristic is an accumulation of dark, and frequently black, pigment, *nævus pigmentosus;* while, in a third instance, it may be remarkable for a tuft of hair growing from its surface, *nævus pilosus*.

When these aberrations of nutrition take place congenitally they must be referred to a want of proper harmony of the vital powers of the individual, to a deficiency or weakness of the controlling power; they are not examples of redundant vigour, but of a loss of the power which controls and fashions the tissues and organs of the body into their normal configuration and structure. Of this we have an interesting illustration in the kakotrophic and dystrophic condition of the skin of elderly persons; the skin is not simply wasted from deficient nutrition, but it exhibits a tendency to abnormal growth in a variety of ways. One of the most common of these is the growth of the superficial portion of the integument into the form of a thread-like cylinder, varying in size from a mere rounded shining papilla to a pendulous thread two or three lines in length; this is the *akrochordon*, sometimes termed verruca akrochordon, but we abandon the latter term as calculated to establish an analogy between the akrochordon and the verruca, and therefore to mislead. Akrochordones are most commonly met with on the integument of the neck of elderly persons, and particularly on that of women, in consequence of the greater fineness of their skin. You will find them on the neck of the first elderly lady whose skin you may have an opportunity of observing, and they

(a) I make this affirmation without any doubt of its correctness. I published in 1867, in the *Microscopical Journal*, an observation on the antennal muscle of a gnat-larva, which showed this continuity. Some distinguished authorities did me the honour of adverting to that observation, though not in terms of acceptance. But I cannot gather that the observation has been repeated to ascertain its correctness, and meantime I can only say that I believe any one who examines the larva in question—which is easily got—will come to the same conclusion as the one I published.

are worth a little study from conveying an important lesson as to the nature of hypertrophy of the integument. They are identical in general appearance with the rest of the skin, and evidently consist of a fine process of the same integument as that from which they grow; they may be seen arising from the lip of a follicle, sometimes they surround a pore and carry it forward in their growth. They begin as a rounded papilla; sometimes this rounded papilla assumes a globular figure, but sooner or later longitudinal growth is established, and then they are more or less pendulous, the rounded head dilating somewhat into the shape of a pouch, and being larger than the stem. In this state they resemble a little flaccid pouch or bag, and are evidently nothing more than a process of attenuated and flaccid integument containing in their interior a portion of loose and spongy connective tissue together with a minute vessel to supply the tissue with the requisite nutrition.

You will perceive that in akroehordon we have all the elements of a tumour of the simplest structure; a sac of integument filled with a loose and spongy connective tissue, and furnished with a minute vessel to maintain its lowly organisation; a mere increment of the normal textures of the skin, without further pathological change; a mere accumulation, by growth, of a low form of tissue where, to preserve the integrity of the skin, a higher tissue should be present, a substitution of quantity for quality; too much integument, too much connective tissue, and, as a consequence, a deficiency of the highly organised papillary layer of the derma. You will also note that the change which I am now describing is located at the surface of the derma; it may be properly said to be upon the skin rather than in the skin, or to affect only the uppermost stratum of the derma.

I am now going to ask you to imagine the form of degeneration of tissue before us to increase to the extent of producing small tumours, which no longer require the lens for their examination, as in the case of akrochordon, but which may be handled and felt. These tumours may range in size from that of a mustard seed to that of a billiard ball; they are always prominent, sometimes merely sessile, and more or less embedded in the integument, and sometimes pedunculate. Exteriorly they resemble the adjacent integument; to the touch they are compressible and soft—hence their name "mollusca." This is the affection to which the term *Molluscum* has been applied. In structure and in the phenomena of its formation, molluscum is identical with akrochordon, only differing from it in bulk, and somewhat in the precise seat of origin, the akrochordon being more superficial than molluscum; and molluscum, from its mere size, intruding itself upon the deeper structure of the derma. Molluscum, like others of our terms, has in course of time, undergone corruption; it has been applied to tumours of the skin of various kinds, particularly to those of a pendulous figure, and a necessity has arisen of distinguishing the molluscum under consideration by the name of Molluscum simplex, or perhaps better, as conveying an idea of its structure, *Molluscum areolofibrosum*.

It is a curious and interesting fact, that the kind of hypertrophy which I am now describing is sometimes met with not confined to mere points of the skin, but affecting a region of considerable extent. I mean that the integument grows to an inordinate degree, and is thrown into folds like the wattles of a turkey or the neck of a bull. Alibert seems first to have given this affection, this cutis pendula, this chalazoderma, a niche in dermal nosology, and termed it *dermatolysis*, or relaxation of the skin. He has noted and has distinguished five varieties of the affection—viz., dermatolysis palpebralis, facialis, collaris, abdominalis, and genitalium. A very remarkable example of this affection is recorded by John Bell in the third volume of his "Principles of Surgery" in the section devoted to the "unlimited growth of tumours;" and another by Dr. Wright in the *Transactions of the Pathological Society of London* of the session 1864-65; while more recently a similar and very interesting case of this affection has fallen under the observation of Mr. Weeden Cooke. We are indebted to Mason Good for the term *ekphyma*, which is applicable generically to the prominences that I have just been describing—namely, to nævus, akrochordon, and molluscum, as well as to some others to which I will now direct your attention. Ekphyma, in reality, signifies a growth or excrescence, and it meets with an apt illustration in verruca and clavus. Verruca or wart is a state of hypertrophy of the epidermis resulting from hypertrophy *of the papillæ* of the derma and their consequent more active function. As we know the verruca upon the fingers and hands (*verruca vulgaris*), it is isolated; in some situations, as on the forehead, verrucæ are often minute and abundant (*verrucæ minimæ*); occasionally, besides being minute, they are confluent, and constitute a warty layer ranging in extent from a few lines to an inch or more (*verrucæ confluentes*); a fourth kind, met with on the scalp, I have named *verruca digitata* from its singular finger-like papillæ; and a fifth variety is presented to us in those remarkable vegetations which are so common about the pudendum and anus, and whose growth is kept up by the moisture of that region (*verrucæ vegetantes*).

Clavus, or corn, is closely allied with verruca, being partly due to hypertrophy of the papillæ cutis, and partly to augmented function of the derma from hyperæmia. Where the action, instead of being limited to a small extent of surface, is more widely diffused, it gives rise to that broader accumulation of hardened and hypertrophied cuticle which has received the name of *Callus*.

When hypertrophy once breaks through the barrier of law and order, it is impossible to set limits to its progress otherwise than by restoring the balance of healthy vitality. The common wart is familiar to us all; it is the representative of the simplest form of hypernutrition. When we see it on the scalp, throwing out long conical processes like feelers, or like the legs of insects, we perceive that a greater amount of metamorphosis lies before us than that which is present in verruca vulgaris. If we go a step further and examine a similar hypertrophy of papillæ, as it occurs upon an irritated or inflamed surface, we change our language, and call them not simply warts, but vegetations. Such are the warty growths of the pudendum already referred to; but in certain affections of prolonged irritation of the skin, such as old ulcers of the legs or chronic eczema, we sometimes find a luxuriant crop of such vegetations which have a development resembling that of the cauliflower, and which may be very appropriately named *cauliflower vegetations*.

Hypertrophous papillæ cutis are, however, sometimes met with in a congenital form. Such a case is described in the first volume of the *St. Bartholomew's Hospital Reports*. A girl of 15 had discoloured blotches on the skin; they were thickly papillated, the papillæ cutis being hypertrophous, and each invested with a pigmented cuticular sheath. To this peculiar case the term *ekphyma papillosum*—a term well suited for distinguishing the growths occasioned by hypertrophous papillæ—seems peculiarly applicable.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

CASE OF HYDROPHOBIA.

By THOMAS DAVIDSON, L.R.C.P. and L.R.C.S. Edin.

Having recently attended a well-marked case of hydrophobia, and having received many letters from members of the Medical Profession and others asking me to give them particulars, I considered it would be better to publish a report of it in some Medical work where it could be read by every one interested. In a letter which I received from a Glasgow M.D., he stated that doubts existed in the minds of some in that locality of there being such a disease. This doubt may arise from the circumstance that the frightful malady is rarely seen in this country. Many Medical men of great experience have passed through life without ever having witnessed a case. I am, however, well assured that any one who has ever seen the disease will not be at all sceptical on the subject for the future, nor will he fail instantly to diagnose the case if he is at all conversant with the symptoms of the disease, and will feel satisfied that it does not originate from a diseased or alarmed imagination.

The subject of the following case had no knowledge whatever that any peculiar disease followed the bite of a rabid dog, nor was he at any time after being bitten either alarmed or nervous. We have evidence that the disease was known from remotest antiquity, Aristotle being generally considered the first author who had noticed the disease in the dog. He wrote on the subject about 320 years before the Christian era. How long it was known before that time we have no means of knowing. Numerous writers have subsequently recorded their views regarding it. It must appear remarkable to those who question whether there be such a disease, that all those suffering from hydrophobia after being bitten by rabid animals, have had precisely the same train of symptoms, and have died in the same way as was seen in the present case.

On May 20, 1870, Thomas Cowan, 8½ years of age, was bitten by a terrier dog. The boy was passing quietly along

the street on his way home from school about midday, when two ladies followed by a dog came out of a house a short distance from him. The dog without any provocation instantly sprung at him, pulled him to the ground, and bit him severely in various parts of the body. I saw him about twenty minutes afterwards in the house of a gentleman who witnessed the accident, and had assisted in taking the dog off the boy. I was told by the person who came for me that the wounds were bleeding severely, and on approaching the house where the boy was, I noticed a considerable quantity of blood on the street. I found him pale and faint from the shock and loss of blood, but the hæmorrhage had ceased. After he drank a cup of tea the faintness speedily passed off. I dressed the wounds in a temporary way, and had him taken home in a conveyance to his mother's residence and completed the dressing. I found an extensive lacerated wound extending from the outer angle of the right orbit to near the centre of forehead, and embracing the entire eyebrow and upper eyelid, which were hanging as a flap near the nose, and partly exposing the globe of the eye. The dog's teeth must have pressed upon the latter, but it was not perceptibly injured. There were also several severe wounds all over the forehead; in the centre there was a deep indentation down to the bone, evidently done by a large canine tooth. There was also a lacerated wound in the chin. On examining his left arm I found several teeth marks on both sides, the dog having had a firm grasp of the arm in his mouth, the marks of the teeth of both jaws being quite distinct. The canine teeth had entered deeply into the arm. On the right thigh there were also several deep wounds.

The owner of the dog being present, assured me there was no disease about the animal, it never having shown any symptoms of rabies. To prevent it injuring any other person it was shot, after it had resisted the action of a powerful poison, which had been given for the purpose of destroying it. The wounds from their situation and number rendered excision and cauterisation out of the question. I therefore washed them carefully and applied carbolic acid, replaced the flap, securing it by wire sutures, at the same time directing hot poultices should be applied to the different parts until the evening. I at that time removed them, substituting a mixture of linseed oil and carbolic acid. On visiting the patient next morning I found him going on very well; his general health was good, there was no fever, the wounds presenting a favourable appearance, and healed perfectly in about ten or twelve days without the least deformity about the eye. The boy got out of bed occasionally after the eighth day, and being a cheerful happy little fellow, he played about the house, showing no anxiety or nervous depression. After the twelfth day, the wounds having quite healed, he was allowed to go out and play about the doors with his companions for a short time daily, the weather being warm and genial. I had never mentioned that hydrophobia was likely to result, nor had I any dread of its appearing in this case, as no one considered that the dog was affected by canine madness. The patient's mother, and his aunt, who resided in the same house, assured me it had never been mentioned to them or the boy that such a dire disease was likely to follow, nor was he at any time either annoyed or frightened after being bit. On Sunday, June 5, he appeared in perfect health, and was quite cheerful and happy. A fearful change, however, was shortly about to take place. On June 7, eighteen days after the accident, I was called at eight o'clock in the evening to see him. His mother informed me he had complained all that day of pains about the neck, head, and face, but not particularly about the bitten parts. Although he had been able to amuse himself with his companions as usual about the doors, he had taken very little food during the day, and could not take his tea in the evening. I found him in bed suffering from intense fever and vomiting, which I was informed had come on about an hour previously. The pulse was 130, hard, and incompressible; tongue clean; skin particularly hot and dry. The symptoms indicated severe functional fever, yet there was an indescribable appearance which I thought I had never seen before in any case. When I asked him if he had any pain he replied he had pain in his head. There was no thirst, but his mother informed me on inquiry that he had drunk a little tea, which he swallowed without any difficulty. I prescribed a mixture composed of aqua acet. ammon., spt. æth. nitros., vin. ipecac., to be given frequently in warm water and sugar, directing at the same time that the extremities should be occasionally sponged with tepid water and vinegar. On visiting him on Wednesday morning the fever had somewhat abated, the vomiting had ceased during the night, the pulse was 120 and firm; the tongue appeared as if it had got a coating of thin white glistening varnish. A laxative was administered, and the mixture continued. The symptoms remained unchanged until early on Thursday, the 9th. I saw him about 7 a.m. His mother stated he had scarcely slept during the night, having been extremely restless, tossing about the bed, and changing his position every few minutes, and had not been able to swallow anything after 2 or 3 o'clock in the morning. I offered him a teaspoonful of tepid milk; he readily opened his mouth, but in a quick hurried manner, the moment the fluid touched his tongue or palate, it was instantly ejected with force. Being at the same time seized with a fit of suffocating spasm, he sobbed or sighed heavily, and threw about his arms. His features were much convulsed, and expressed the greatest dread and horror; the muscles of the larynx, pharynx, and trunk all became agitated by convulsions, which lasted for about a minute. After the fit had subsided his features became quite natural, and indicated very little appearance of disease or suffering. Nor was he either excited or talkative, as has been seen in some cases of the same disease; his intellect was unaffected. After waiting a short time I breathed gently in his face, when the same sobbing, choking, and convulsed condition came on as when he attempted to swallow fluids. I then informed his friends it was a decided case of hydrophobia. He could now, and at any time during the progress of the disease, open his mouth freely, and protrude his tongue when requested to do so. The term hydrophobia—dread of water—was not very applicable in this case, as he seemed to have no actual dread of it, as he a short time after this asked for a drink of water; the act of deglutition and remembrance of the pain and difficulty in attempting it caused dread, as I observed. Although he asked for fluids, when they were presented he suddenly pushed them away, and said he could not swallow. Pantephobia (a fear of all things) or phobodipson (fear of thirst)—names given by the ancient writers—seem more accurate. During the course of the forenoon I asked Drs. Cahill and Gracey to see the case with me. One of these gentlemen, feeling the patient's pulse with cold fingers, instantly threw him into the convulsed state before described. I noticed the application of the patient's own finger to his face produced the same effect. The instant it came in contact with the skin he started as if he had received a sharp shock of electricity; he sobbed, threw his arms out, and the usual convulsion of the face and trunk followed. Having directed one of the attendants to pour water from one vessel to another in such a position as he could not see the water, the sound alone produced the same dreadful symptoms.

The Medical gentlemen named entirely concurred with me in my views of the case, and it was mentioned in the discussion which followed that the fits did not resemble tetanus, epilepsy, apoplexy, or convulsion in any form which we had ever witnessed during a practice extending from twenty to thirty years. With respect to treatment, we had little faith in any known remedy, believing that no record exists of a single recovery from this fearful disease either by art or from the efforts of nature when the symptoms of the malady are fully established and well marked. Chloral was spoken of, but as he had lost the power of swallowing it was never tried; it would possibly have proved of as little efficacy as any of the various remedies which have been tried, as its effects seem to be chiefly upon the cerebrum; but from what I saw in this case I am led to conclude that the spinal nerves are more implicated than the cranial. I had the bowels freely moved by a purgative enema; a dose of calomel, scammony, and jalap was given in divided doses, mixed in stiff jelly, which he masticated and swallowed without much difficulty. A beef-tea enema, containing tinct. opii, was directed to be given, but had to be laid aside, as it brought on the fits. A heated air-bath was extemporised by getting a tin tube made about four feet in length, with inverted funnel-shaped mouth. A lobster "creeve" was obtained. After removing the "net" the frame was placed over the patient's body, and covered with the bed-clothes. Placing a spirit-lamp below the funnel, the heated air was conducted within the frame, and an excellent air-bath was established. A slight moisture over the surface of the body was soon produced; the bath was continued for several hours. The powder moved the bowels freely; the tongue assumed a more natural appearance; he seemed more tranquil, and the fits not quite so frequent; and he had eaten a small biscuit during the afternoon. Many spontaneous attacks occurred during the day, but care was taken not to induce them by any exciting cause. About 7 p.m., the fits becoming more frequent and severe, inhalation of chloroform was now tried, and persevered in for two hours; but, instead of soothing him, it

seemed to have the opposite effect—complete anæsthesia could not be induced for more than two or three minutes at a time. Three ounces of Messrs. Duncan and Flockhart's best chloroform were used, then discontinued. The fits were so severe and the struggling so great, he had to be kept in bed. A sheet was fixed over the frame of the bed for that purpose, and was found quite effectual. As the disease progressed he became more exhausted, the pulse weak and irregular. He continued perfectly sensible until the last. When I asked him, a quarter of an hour before his death, if he felt any pain, he answered instantly that his eyes and his hair were painful. His eyes, for an hour before dissolution, appeared projecting from their sockets; the eyelids retracted in a perfect circle, giving to his countenance a look of dread and horror which was painful to witness. The muscles of the scalp were also affected with spasm, causing his hair to stand almost straight out. There never appeared any unusual amount of fluid about his mouth, and nothing like "slaver" until an hour before his death, when he frequently vomited about a table-spoonful of viscid, clear mucus slightly mixed with froth. Occasionally a spot of blood was observed in the matter vomited. He complained that the light of a candle pained him. I left him at 12.30 a.m., and was informed that ten minutes afterwards he vomited about a pint of dark-coloured blood, when death quietly took place in a few minutes without any convulsion, on the twentieth day after the accident and twenty hours after decided hydrophobic symptoms were presented.

Remarks.—No post-mortem examination was made, as the morbid appearances most frequently found have thrown little or no light upon the disease. As no change of structure has yet been discovered as pathognomonic of, or essential to, the existence of hydrophobia, to those interested in the post-mortem appearances presented in hydrophobia, after a careful dissection made by an expert anatomist, I would recommend them to read Dr. Struthers's case, which occurred in Leith in 1850, and was published by that gentleman in the *Monthly Journal of Medical Science* for January, 1851. There is a considerable analogy between Dr. Struthers's case and my own; the patients were of the same age, and the wound in his case was on the eyebrow also, but not involving the eye. An hour and a half after the accident Dr. Struthers carefully excised the bitten parts, and cauterised first with nitrate of silver, and then with pernitrate of mercury, yet the results were the same, the stage of incubation was thirty-two days in his case, and death took place fifty hours after the first symptoms had shown themselves. I would conceive that bites inflicted in bare and very vascular parts will be much more likely to be inoculated than those in less vascular situations. Absorption of the virus seems to take place with great rapidity, as we learn that the sting or bite of a serpent causes death in a few minutes, the poison being diffused by the circulation to the remotest parts of the body in a few seconds. I consider it is the duty of the Medical attendent in every case, where he is called to dress wounds occasioned by the bite of a dog, whatever its state of health may be, to excise at once, and apply caustic, if the nature and situation of them will admit of such treatment. Were I called to treat another case of hydrophobia I would again try the effects of the air bath, and the hypodermic injection of the ext. physostigmatis, which has been found successful in tetanus. It has been stated that some hydrophobic patients have barked like a dog. In the boy Cowan, during the fits he would utter a scream, which was sometimes checked by spasmodic contraction of the muscles of the larynx, thereby causing something like the bark of a dark. During the fits there was not anything like opisthotonos, emprosthotonos, or pleurosthotonos, but the head and trunk were violently twisted from side to side by the irregular spasmodic contraction of the sterno-mastoid and other muscles, the mouth being at the same time suddenly opened and instantly shut again with a snap. Had great care not been taken, any attendant might have been severely bitten. These motions appeared to me to be entirely involuntary, and not occasioned by a morbid desire to bite, or from any savage emotion passing through the mind. At the coroner's inquest which was held on the body of the boy Cowan the owner of the dog stated that it had been very restless and out of sorts for a day or two before attacking the boy. Another witness mentioned there had been a change in the usual habits of the animal; from being very quiet it had of late been frequently found fighting with other dogs, which the late Mr. Youatt, who had seen more of the disease probably in man and animals than any other person in this country, would have considered sufficient evidence that it was in a dangerous state. Dogs appear to be much more susceptible of infection than man. How it first originated in the canine species it is impossible to say; yet it appears incontestably proved that idiopathic or spontaneous hydrophobia never occurs in the human subject, but is invariably caused by inoculation by "bave," or slaver, from a rabid animal being inserted or applied to an abraded surface. The disease, most fortunately, is comparatively rare in this country; yet it must be well known in Prussia, as we read in Sir Thomas Watson's "Practice of Physic" that 1666 human beings fell victims to it in that country in the space of ten years.

TREATMENT OF A CASE OF SUNSTROKE BY VENESECTION.

By J. H. SALTER, M.R.C.S., L.S.A., L.M.
Associate of King's College, London, etc.

Authorities on sunstroke being still somewhat divided in opinion as to the most effective method of treating the disease, I am induced to lay before the Medical public a case that recently came under my own observation, which I treated by venesection with such marked success that, in setting it forth, I am willing to run the hazard of being charged with therapeutical heterodoxy.

On July 21, a day to be remembered as one of the hottest of the summer of 1869, I was hurriedly summoned to a case of sunstroke.

I arrived about half an hour after the seizure, and found my patient, a lad of 16, who had been working in the harvest field in perfect health, lying on the ground, under the shade of a hedge.

He was insensible, and wriggling in convulsions like an eel. The muscles of the trunk, neck, and legs were rigid; the countenance suffused, the eye directed backwards and fixed, the breathing snatchy and stertorous.

On a closer examination, I discovered the pupils were contracted to a minimum, the conjunctivæ were injected, and the teeth firmly clenched together. The temperature of the body was abnormally high, with the surface dry and rough. The heart beat tumultuously, and the throbbing of the carotids was very energetic. At the wrist the character of the pulse was small, quick, sharp, and wiry—there was a lack of volume, not of propelling force. I watched him carefully for some few minutes, and his symptoms increased in severity, so that I considered him in extremis. It then occurred to me that his condition might be relieved—it certainly could not be made worse—by the careful abstraction of blood; my immediate desire being to moderate, if possible, the urgent venous congestion, and to lessen the general spasm.

I took several ounces of blood from his arm without delay, keeping, at the same time, a vigilant watch on him. The effect was most striking. The convulsions were quickly relieved, and gradually ceased as the blood continued to flow; the pulse became slower and fuller, the breathing less laboured and snatchy, and the venous engorgement of the face subsided; the pupils relaxed a little, and, by the time I had bound up his arm, he lay in a heavy oppressed sleep.

He was then removed to a neighbouring house and put into bed. Cold applications were used to his head, and his extremities, which were now cold, were artificially warmed. A dose of castor oil was given him as soon as he could swallow; and through the night, small quantities of weak brandy and water and beef-tea were administered repeatedly.

The next day (July 22) I saw him about noon, and found him in every respect better. The night had been a restless one. He had passed water, though scantily, and his bowels had been relieved. His pulse was quiet and tolerably full; his pupils nearly normal. He could not speak, and his intelligence seemed impaired. When urged, he muttered incoherently. The skin was acting healthily and perspiring. He made known to us that he had no pain except in the spot whence he had been bled.

On the following day he was well enough to be removed to his home—a distance of several miles.

With the above facts before me, it is impossible for me to ignore the beneficial effects of bleed letting in this case, and I have implicit belief that through this means, the patient's life was saved. Its immediate effects seemed to be: To relieve the general venous congestion; to render the breathing calmer and less laboured; to diminish the frequency, and alter the character of the pulse; to lessen the spasm, and arrest the convulsions.

The venous congestion was probably lessened by the direct mechanical relief afforded by the abstraction of blood from the oppressed circulation; and when the pulmonary engorgement had been reduced, and the obstruction offered to the effective working of the right side of the heart removed, the pulse resumed its normal character.

It is probable also that the blood letting had an immediate and direct action on the vaso-motor nervous system, in exerting over it a calmative influence, and, by this means, relaxing the spasm, which was evinced by the gradual, but speedy abatement of general convulsion, and the spasmodic action of the respiratory process.

Tolleshunt D'Arcy, Essex.

CASE OF

ENORMOUS HYDATID CYST IN THE LEFT VENTRICLE OF THE BRAIN.(a)

By GEORGE YATES,

Surgeon-Major to the Birmingham or 1st Battalion of Warwickshire Rifle Volunteers; formerly Surgeon in the Anglo-Turkish Contingent in the Crimea.

It may be premised that this case was intended to have been laid before the general Profession through the Medical press at the time of its occurrence, but the notes had been mislaid. The unusual dimensions of the cyst, however, and the peculiarity of the matter altogether, seem to render a record of it very desirable even at this late date.

A young man, named J. G., about 19 years of age, full in stature, and swarthy pale, was brought to me on September 26, 1854, complaining of the following symptoms—namely, great pain over the whole of the head, want of rest, and at times slight delirium, accompanied with an occasional discharge of fœtid matter from the nostrils, which discharge gave relief. He had been, as reported, under Medical care previously, and it was stated that the case had been viewed very naturally, by one Practitioner after another, as one of bilious headache, and treated accordingly by purgatives, etc. I at first was inclined to adopt the same view, and, in order to test it, ordered him an emetic, followed up by purgatives and a light kind of dietary. The pain, etc., however, continuing severe, and various other remedies giving no permanent relief, I began to consider that there must be some local organic disease, and recommended that they should consult Dr. Nelson. That gentleman stated, after examining the patient on June 13, 1855, that he had no doubt whatever of some very serious mischief having commenced within the head; but whether it might be chronic softening, or hardening of the brain, or some effusion or progressing abscess, he saw no pathognomic symptom to determine, though he rather inclined, at this time, from the occasional fœtid discharge of the nose, to believe that there might be some bone disease giving rise to pressure on the brain from accumulations of pus or other effusion. Dr. Nelson had observed a peculiar wavering and dulness of the patient's eyes, and an uncertainty of motion in the lower limbs, so that he knocked himself against the corners of tables and chairs while walking across the room; like one either tipsy or unnerved by reason of some debauch of the previous day. The father had been so much struck with this feature of the case that he said he had begun to think that the symptoms might proceed from secret drinking, and that he had resolved not to let him be out of his sight for two or three days in succession; but no change in this respect was noticed after that very judicious experiment. Dr. Nelson suggested the continuance of moderate purgation, blisters behind the ears, and a mixture, the active ingredients of which were iodide of potassium, colchicum, and aconite. His prognosis was that the fate of the sufferer would be slow and dismal, unless some sudden death should cut him short. The result proved both alternatives to be true.

This treatment relieved the pains while the patient was under its influence; but they recurred as severely as ever in the intervals. Dr. Nelson was again consulted on September 13 in consequence of the agony becoming so great that the patient uttered piercing screams which alarmed the whole neighbourhood, as if some person were being cruelly murdered. With a view to test if these dreadful paroxysms were of a neuralgic character, for they were somewhat periodical, the effects of cinchona and quinine, and large doses of carbonate of iron were tried; but with so fearful an increase of this peculiar symptom at each exhibition of those agents that it became evident that sedatives, and not tonics or stimulants, were required. They were therefore laid aside, and the former remedies resumed, along with morphia, which gave temporary alleviation. In the acute attacks he solicited his friends to hold his head fast, and allow it to be only very gradually raised from or laid down upon the pillow, the slightest jar renewing the agony and piercing shriek, and in this way giving evidence of some fluctuating fluid, as in hydrocephalus. Thus he continued up to the period of my leaving England for the Crimea, after which Dr. Nelson was consulted from time to time as before, and from that gentleman I subsequently received the following account of the progress of the disease. He was first called after my departure in consequence of the appearance of partial hemiplegia of the left side, the pains, however, having considerably abated, both in frequency and severity, for some time before. There was a certain good-natured dulness about him, but he knew every one, and would give clear answers to simple questions. He could grasp with his left hand, but its powers were manifestly impaired, and he could move his left leg about in bed, but could not stand upon it. There was no drawing of the mouth or tongue to one side, nor any impairment of speech, vision, or taste. He also eat voraciously, was very full in the face and neck and chest, and all the organs of vegetative life, as the lungs, heart, etc., etc., seemed in perfect order.

Dr. Nelson continued thus to see him from time to time up to April, 1856, pain being only occasional, and in other respects the patient continuing much the same, neither improving nor relapsing to any appreciable degree, unless the extraordinary increase in the puffy, but not watery, magnitude of the face and neck, could be called either relapse, or improvement.

In such condition I found him on my return from the Crimea, when I visited him along with Dr. Nelson. He had a sort of half-idiotic, good-natured smile; but answered all questions with clearness, knew both myself and Dr. Nelson, and pronounced our names at once, and without the slightest hesitation. He was, in short, as above stated, the face being very large and fleshy looking, and the appetite inordinate.

On September 11, 1856, while living at Smethwick, where the father had gone to manage some large works, while apparently as well as usual (having even got downstairs without assistance), he suddenly expired. Before his mother could reach him, on the alarm of his sister, he was gone; and she only witnessed one or two slight convulsive twitches of the muscles of the face. The examination of the body revealed the secret cause of all this fearful train of symptoms; for, on raising the detached bone, the organ underneath gave a startling sort of leap, as if it had previously been under great pressure, and we then observed that the left hemisphere contained a large bag of fluid, or cyst, which had actually displaced the entire substance of the brain on each side of it to the extent of circles of about two inches in diameter; so that the cyst in these spaces impinged directly upon the dura mater, and we could see that the mass was semi-transparent on looking through it from side to side. The remainder of the substance of the hemisphere overlapping the cyst above, behind, and in front, was reduced to a mere thin soft shell, which, upon being pushed aside, displayed to view this immense single hydatid cyst, lying without any other than certain curd-like, and perhaps inflammatory, attachments within the ventricle—if such it could now be called—the floor of which was entire, while the substance of the brain above had been absorbed under the pressure of the growing cyst. It was about the size of an ostrich egg, but globular, and formed, as it rolled along any smooth surface, a very oblate spheroid, like a flat turnip, but beautifully symmetrical, about fourteen inches round the bulging circumference, and having sundry echinococci, such as these acephalocysts contain, not attached, but gravitating from side to side in the semi-transparent fluid as the cyst was rolled along.

This report, of course, can only be viewed as a contribution to the curiosities of the science of Medicine, inasmuch as both Physician and Surgeon must stand powerless in the presence of such a formidable invasion of parasitic growth, happily so very uncommon, unless one or other be of so heroic and adventurous a spirit as to drag the enemy out of his stronghold, first knowing him to be there, and that in his early infancy. But one fact, which some might consider of an extra-Medical bearing, though I am far from doing so, is worthy of being remarked upon. If we cannot cure a disease, we may assuage pain; and even if we cannot do that we may, by care in the collateral treatment of the general health, protract the duration of the

(a) Read in substance before the Medico-Chirurgical Society of Queen's College, Birmingham, by Professor David Bolton.

life, which may often be of great consequence in many ways, irrespective of the fact that it is of course the bounden duty of all concerned to see that they shorten it not even by one instant of time. In this case, the young man came under my management when he was 19 years of age. He lived just two years. An uncle had left him a considerable legacy, payable to him at 21, dying before which time it would revert to other parties. As it was, he survived 21 years by a few days, and his father thus became his heir. The cyst was at the time sent for inspection to the General and Queen's Hospitals, and the Queen's College here.

14, Bath-row, Birmingham.

FATAL OBSTRUCTION OF INTESTINE FROM DISEASE OF THE PANCREAS.

By HENRY F. NATHAN,
Assistant-Surgeon Royal Naval Hospital, Malta.

W. G., aged 25, private in the Marines, was received into the Royal Naval Hospital, Malta, on April 11, with a history of having been on the sick list of his ship for nearly a fortnight with catarrhal symptoms, and great debility, succeeded a day or two before admission into Hospital by gastric irritability, foul tongue, nausea, and constipation. When received into this establishment there was much nausea, tongue thickly coated with yellow in the centre, red at the tips and edges, a small weak pulse, constipation, incessant hiccup, and a tympanitic abdomen, the fulness being especially marked in the epigastric and upper half of the mesogastric regions; but no pain or tenderness anywhere. A few hours afterwards vomiting commenced, the matter vomited being in large quantities, stringy, thin, brownish, and of a strongly acid reaction. As the case progressed the hiccup was constant, the bowels acted at first after injection into the colon by means of a long flexible tube, and subsequently enemata of beef-tea returned laden with fœcal matter, the emaciation and debility increased, vomiting was always present, the ejected matter being of the character described above, and loaded with torulæ, but never stercoraceous; and what is rather remarkable is, that throughout the case there was no pain or tenderness in any part of the abdomen, the urine was secreted pretty freely, but was albuminous, which probably depended on renal disease, and there was no jaundice. The patient retained his senses to the last, but finally sank, apparently from exhaustion, at 8 p. m., on April 15.

Necropsy.—On opening the abdomen the stomach was found greatly dilated, the omentum healthy, but here and there were small coagula of blood, caused by capillary rupture. The pancreas was much enlarged, and its head greatly indurated, almost possessing a mortar-like feel. The canal of the duodenum in the lower half of the descending portion was entirely closed by the pancreatic pressure, its coats were much thickened, its mucous membrane swollen, and intensely congested at this point. The lining membrane of the upper part of the duodenum, and of the stomach, although slightly congested, were healthy. The liver was somewhat fatty, and pushed up towards the thorax. The kidneys were enlarged, and in the first stage of fatty degeneration. The gall bladder was distended.

ON THE DECUBITUS IN PHTHISIS PULMONALIS.

By ROBERT W. FOSS, M.B. Edin.,
Late Resident Clinical Assistant at the Hospital for Consumption, etc., Brompton.

It is an interesting fact that in many one-sided inflammations in the chest the decubitus is on the affected side, of which there is a satisfactory explanation in the hypothesis that the other side has to do double work, and so by this means its expansion is made the easier. In phthisis pulmonalis, on the other hand, the reverse is the case, the decubitus, instead of being on the most affected, is on the least affected side. Louis, speaking of this latter phenomenon, says, "This circumstance may consequently aid the observer without the use of auscultation or percussion in ascertaining which side of the chest is most affected."

I have examined fifty-eight cases of undoubted phthisis, and found that in forty-seven the decubitus was on the healthiest side, in three on the most diseased side, and in eight it was not affected at that particular time. Of the eight in whom the decubitus was not affected, five had double cavity, one had passive one-sided cavity, and two had crepitation to about an equal degree at both apices, so that in seven the disease was equal on both sides and in the eighth it was passive. In several of these cases at one period of the disease the decubitus had been solely on one side; but as it progressed and affected both sides equally, then the decubitus became dorsal, or finally abdominal.

Of the forty-seven whose decubitus was on the healthiest side, the disease in all was advancing with more or less rapidity. Of the patients who could lie on the most diseased side the disease was in a passive condition at the time; but in one of them soon afterwards active symptoms, as hectic, etc., set in, and then the decubitus was on the least affected side, so that it may be said that during the absence of active symptoms the decubitus is not so much interfered with, but that, as soon as they appear, where one side is more affected than the other, that then the decubitus will be on the least affected side. This fact is interesting when taken in relation with the hectic flush, which is usually said to be greatest on the most affected side, so that we see the patient lying on the healthiest side, with the greatest flush on the opposite cheek—two things, when taken together, quite diagnostic of the most affected side—viz., decubitus=healthiest side, greatest hectic flush=cheek corresponding to most diseased side. In nearly all the cases there was softening on one or both sides, and until this process took place the decubitus was normal. There are two ways of accounting for this one-sided decubitus, neither sufficiently comprehensive, however; first, that by lying on the diseased side the abnormal secretions are emptied with greater difficulty; secondly, that the weight of the superincumbent viscera causes the increase of cough and pain complained of. In forty of the fifty-eight cases the left was the most affected side, bearing out the general rule.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

MYXOMATOUS TUMOUR IN THE CALF—OPERATION—RECOVERY.

(Under the care of Mr. CHRISTOPHER HEATH.)

Myxoma is a term still so rarely used by English Surgeons that we are glad of the opportunity of reporting a fairly characteristic example of this form of tumour. It is not many months since a Medical contemporary reviewing a reissue of a standard Surgical work, objected to the multiplication of new names of morbid growths in a series of illustrations of the microscopic appearances of tumours, and, if we remember rightly, myxoma and glioma were the names singled out for reprobation. But, surely, if scientific pathology is to make any real advance, every genuine distinction which separates one class of morbid growths from another, is of very practical value. It is in this respect that Virchow has done so much for Surgical pathology; and the taking certain of the "fibro-cellular" or "colloid" tumours of former pathologists and placing them in a separate group as myxomata or mucous tumours with distinctive signs and characteristic structure, is not the least important result of his labours in this department. The purest form of myxoma is comparatively rarely met with, the clear translucent viscid mass being generally mingled with more or less of fatty or ordinary white fibrous tissue. When these elements are absent, the diagnosis is usually sufficiently easy. The viscid fluid which slowly drains away in a bulky stream from the freshly cut surface is clearly not mere serum entangled in connective tissue. If there be any doubt on this head, a few simple tests will establish the nature of the fluid. Thus, it is hardly, if at all, coagulable by heat; on the addition of spirit a coagulation ensues, not in dense flocculi, as in the case of serum, but in circling streaks and ribbons; vegetable acids cause a precipitation; and, finally, mineral acids also cause a deposit, but this is redissolved in an excess of the acid. The only other thing that it could be confounded with would be true colloid disease, but here the microscope would step in to aid, even if the seat and mode of invasion of the growth were not sufficient to distinguish it at once

from the more malignant affection. The microscopic as well as the naked eye characters of myxoma were very well marked in the case under discussion, whence our pleasure in obtaining it for our Hospital Reports.

Eliza C., a widow, aged 55, in domestic service, was admitted into University College Hospital, under Mr. Heath's care, on April 12, 1870. She had been a strong healthy woman, had never suffered from symptoms of syphilis, had reared two children, and had spent many years in service. It was to the amount of kneeling required in her work that she herself attributed the swelling for which she sought relief. About two years previously she noticed a small lump growing below the right knee, on the inner side, but as neither pain nor inconvenience were occasioned by the swelling, she allowed it to increase to its present size, and to become both tender and painful, before seeking relief.

On admission, a tumour the size of a hen's egg, firmly elastic, and freely movable, was found over the inner side of the head of the tibia. It was not adherent to bone, but firmly attached to the skin. The pain was increased on lying down, and relieved when the leg was in a dependent position. The veins of the same limb were varicose, and it was at one time thought that the swelling was a hæmatoma. Mr. Heath made an exploratory puncture, but nothing but blood escaped. He then made an incision about two inches in length over the tumour, and readily dissected it out. The tumour was described as being of a colloid appearance, but a small quantity of viscid mucoid fluid escaping on section, it was pronounced to be a myxoma. The wound healed without trouble, and the patient was speedily discharged.

Thin sections and little teased out bits of the tumour, stained with carmine, and mounted in glycerine, showed beautifully the typical structure of these growths. In the thicker portions of the specimens only a confused network of delicate fibres was visible, intermingled with cells and nuclei of various shapes; but where the section was thinner the structure was seen to be made up of cells of very varying shape and size, exceedingly delicate, with faintly granular contents (so as to be hardly discernible until stained), and one or more oval nuclei. These cells giving off long slender branches in all directions, formed by the free anastomosis of their branches, an irregular network, the threads of which usually presented a well-marked double contour. In some parts these appearances were modified by the fibres assuming a coarser aspect, and being loosely banded together in wavy clusters, and elsewhere collections of minute oil drops in round and oval masses, showed degenerative changes to be at work. The tumour was not very vascular, but here and there fine capillary vessels could be traced ramifying through it. It will thus be seen that the structure of this tumour resembled closely that of the mucous tissue of the umbilical cord, and it therefore serves as a good illustration of a typical myxoma.

THE MIDDLESEX HOSPITAL.

COMPOUND COMMINUTED FRACTURE OF RIGHT RADIUS AND ULNA—IMMEDIATE PARTIAL RESECTION OF ELBOW—RECOVERY WITH USEFUL LIMB.

(Under the care of Mr. De MORGAN.)

We are indebted for the notes of the following case to the House-Surgeon, Mr. Pidwell.

Alfred K., an engineer, aged 22, was admitted May 27, 1870, with a severe injury of the right elbow. Whilst leaving the engine-house he had slipped down a step, and fallen with his arm against a band-saw. On admission an incised wound was found extending from the anterior surface of the right elbow joint, along the outer side and obliquely along the back of the forearm to the inner side of the ulna, about 2½ inches below the elbow. The wound was clean cut, the muscles not lacerated nor detached from the skin, there was no hæmorrhage, the arteries at the wrist pulsated, the hand was warm, and the sensation perfect. On examination under chloroform the olecranon was found detached, together with the head of the radius, and some splinters of the articulating surface of the ulna, the humerus was sound. Mr. De Morgan removed the head of radius and some splinters from the wound, leaving the olecranon. The wound was washed out with lot. zinci chlor. (gr. 30 ad ℥j.); a deep suture employed to bring the edges together, and ordinary sutures to maintain them in apposition. The fore-arm was hung at a right angle to the arm, the latter resting on a pillow, and lint soaked in lot. zinci chlor. (gr. v. ad ℥j.) was applied constantly to wound.

May 29.—Slept well. Complained of no pain. Wound had a slight blush about it. No constitutional disturbance.

31st.—Felt well, but there was a little redness and swelling above the joint.

June 1.—Deep suture removed. Redness disappearing. A thin discharge from wound.

6th.—Going on well. No swelling nor tenderness; a thin purulent discharge.

14th.—Wound was healed excepting a small spot at its outer side. Ordered bals. Peru with lot. zinci chlor. over it.

20th.—Limb placed in angular splint.

22nd.—Since the splint had been used the arm was a little more swollen, and there was more discharge, the patient feeling uneasy. The limb was therefore replaced in its former position.

25th.—Improved since the angular splint was left off.

July 8.—Improving daily.

20th.—Wound healed. Many-tailed bandage used, the limb being slung.

By July 30 there was already fair movement in the joint, and the patient remaining perfectly well in other respects he was shortly discharged.

THE LONDON HOSPITAL.

CLINICAL NOTES OF CASES.

Two cases of ligature of the main artery for acute inflammations. Compound fracture at elbow. Obscure head injury. Erysipelas following operation for hernia. Cases of severe multiple injuries.

We saw, during a recent visit to the wards of this Hospital, some cases of interest of which we append a few brief notes. Mr. Reeves has under treatment a patient for whom ligature of the main artery of the limb has been performed for acute inflammation of a joint. The man, aged 36, was admitted with a wound of the left knee, opening the joint on the inner side. There was much inflammatory mischief set up in the part, and smart hæmorrhage recurred more than once—no vessel being found for ligature on the wound being explored. Ice and pressure and the use of the tourniquet at the groin, sufficed to arrest the bleeding, but considerable disorganisation of the joint resulted, with much suppuration and severe constitutional disturbance. Mr. Reeves, after consultation with Mr. Maunder, tied the femoral artery in the groin. The result next day was seen in 2° lowering of the temperature; the pulse went down from 130 to 110, the discharge of pus fell from eight to four ounces, the sweating decreased, the redness cleared off to some extent, and the parts generally looked much quieter. When we saw the man three days later, there was a good deal of suppuration, and he looked much exhausted, but his state had been clearly improved by the operation.

We saw another somewhat similar case under Mr. Maunder's care, in which the brachial artery had been tied in the middle of the arm for diffuse cellulitis of the hand, but without—as far as we could see—any marked amelioration of the symptoms, the inflammation speedily regaining its intensity, and producing much disorganisation of the parts. It may be, however, that deligation at a higher point, so as to cut off the supply from the superior profunda, might have had a greater effect. The immediate result of the operation was that the temperature fell from 102·2° to 101·4° in two hours, with temporary abatement of the local symptoms. By the next morning, however, the redness and swelling had again appeared, the temperature went up to 103·2, and subsequently the hand suppurated.

Amongst the patients under Mr. Waren Tay's care is a woman, aged 36, whose elbow being opened by a wound which also shaved off the head of the radius, has yet done exceedingly well. The wound having been sealed with collodion and kept constantly cold with ice, healed nicely with no untoward symptoms, and with the temperature averaging 100° or lower. When we saw her, an attack of erysipelas, which seems somewhat prevalent in these wards, had thrown the healing process back; otherwise, this case would have been a good one to set against the singular recoveries from compound injuries of joints treated with carbolic acid or other disinfectants.

Mr. Tay has also an obscure case of head injury worthy of study. A young girl, aged about 18, was lying drowsily in bed, apparently but half sensible, complaining sleepily when interfered with, and specially when her right arm was moved or pinched. Two or three weeks previously she had been riding in a cart when the horse ran away, and to save herself the girl leaped out, and fell heavily on the head. She was brought

insensible to the Hospital, having had two or three convulsive fits, and when admitted there was bleeding from the right ear. This bleeding was very slight and did not continue, and although the fits recurred, convulsing both sides alike, the coma quite cleared off in a couple of days, and the case was thought to be one of concussion. She was kept under observation, as she remained rather stupid, and on the tenth day she had fourteen fits in rapid succession, and next morning she was found completely unconscious, with the whole of the right side and the right half of the face paralysed. The temperature also, which had hitherto kept normal, now went up to 100° or 101°, and kept up. There was no loss of sensation, but the fingers were contracted as in cases of brain irritation. This paralysis lasted only forty-eight hours, and then slowly passed off, leaving the girl in the stupid drowsy state mentioned, and with some loss of power and exaltation of sensibility in the right arm.

There is an unfortunate instance of the result of erysipelas attacking a patient after operation for strangulated hernia, in whom, however, the result has been far more satisfactory than could have been expected. A middle aged woman was operated upon by Mr. Tay for strangulated femoral hernia, on April 26, the sac being opened. All went well for three days, and then the wound was attacked with erysipelas, and a very extensive slough resulted, the skin over the upper part of the thigh and groin being destroyed over a surface as large as a dinner plate. The hernia did not suffer in any way, and a weight being kept on the limb so as to keep the thigh well extended during the healing process, the whole of the surface has now closed in—excepting a bit the size of a florin—with the limb in excellent position.

Another instance of recovery under untoward circumstances, is that of a man admitted three weeks ago under Mr. Tay's care, having fallen some five-and-twenty feet from scaffolding. Besides a fractured femur and hæmorrhage from the urethra, the man sustained a compound comminuted fracture of the humerus into the right elbow. Mr. Tay at once excised the joint, removing six detached bits of humerus and the heads of the radius and ulna, and the man bids fair to recover with a useful limb.

The last case we noted was one of still more severe injury. A man aged 32, whilst working a machine for masticating gutta-percha, got his arm entangled and dragged in between two rollers up to the shoulder, when his head coming in the way, stayed further mischief, and he was released with a broken rib, a severely contused head, one ear torn off, a fractured humerus, and all the skin stripped from the inside of the arm and the side of the chest. The axillary artery could be seen beating for some distance, but no pulsation could be felt below the fold of the pectoral muscle, nor at the wrist or elbow. All power of movement and sensation had also left the arm. The opinion was that the main artery and the brachial plexus of nerves were torn across. The man lived and seemed disposed to recover, but no sign of nervous power returning to the arm after three weeks, Mr. Tay amputated the limb, keeping the skin on the outer side for a flap, and sawing through the bone close above the seat of fracture. The brachial artery was found plugged, and the nerves were not injured below the site of amputation, and he could just feel at this spot. He is now doing well. The interesting feature in the case is that with such grave vascular and nervous lesions the limb did not become gangrenous, but on the contrary good suppuration was established by the time the arm was removed.

THE ROYAL SOUTH HANTS INFIRMARY, SOUTHAMPTON.

The Royal South Hants Infirmary is situated on a height overlooking the Itchen, on the north side of the burgh of Southampton, and about a mile from the docks. The building itself is of different dates, but no portion is very old, the institution having been established so late as 1838, the building dating from 1844, and certain of the wards having been only recently added. It is well planned, through and through ventilation being obtainable in almost every ward. In consequence, these are very airy, and they are kept very clean and sweet. The portion devoted to in-patients occupies two floors, the basement being given up to the kitchen and out-patients' departments. The east half of the building is occupied by males, the west by females; but the former is considerably the larger, there being built from its extremity a fine wing projecting southwards towards and overlooking Southampton. The ground floor is given up to Surgical cases; the first floor, with the exception of one ward, to Medical cases; but in none of the wards did the patients strike us as being so ill as it is usual for us to see in-patients in metropolitan practice. Nevertheless the beds, which number 104, were all full. The flooring of the wards is of polished oak, covered with a kind of varnish made of paraffin, introduced by Dr. Langstaff, one of the Surgeons. It is said that pyæmia, which was formerly common, has ceased to infest the institution since this was used. Of Surgical diseases, those of the bones and joints seem to be by far the most common, and it is said that Hampshire is notorious for the abundance of these. Of course, in a place like Southampton, the head-quarters of our mail steamers and of steam traffic to all parts of the world, accidents must be common, and the distance of the infirmary from the docks and railway is in this respect a disadvantage, which, however, is to some extent compensated for by the salubrity of its site. The sufferers are conveyed on stretchers specially constructed so as to suit any of the doors of the Infirmary. As to dressings, we noticed nothing peculiar in the establishment; the carbolic acid lotion is used, but the carbolic acid dressings in compound fractures have not found favour in the eyes of the Surgeons. As in some other of our provincial Hospitals, cleansing the wounds by means of a stream of water alone is here adopted, and one of the Surgeons, Dr. Lake, has invented an efficient apparatus for this purpose. It consists of two tall zinc vessels, attached the one to the other, the one containing cold, the other hot water. The two communicate with a flexible tube, furnished with a nozzle, in such a way, that either cold or hot or tepid water may be supplied, and the pressure of the fluid in the tall vessels promotes sufficient power to cleanse the wound properly. The hot water further keeps a supply of poultices warm, and furnishes the means of readily applying adhesive plasters at any time.

In one of the wards we saw a man whose right middle finger had been severely injured, in so much that it had been removed. He had a strong tendency to hæmorrhage, and the bleeding had recurred again and again, and had been with difficulty arrested. His brother, who had also been an in-patient, had exhibited a similar peculiarity. When we saw him the wound was looking very bad, and it was being subjected to constant irrigation. The way in which this was improvised struck us as being neat and effective. A basin of water was placed at the bedside, and elevated above the level of the patient; in this was placed a long Liston's splint, and across its notch was laid a small piece of wood as a cross bar. These together supported several loosely twisted cords of darning cotton, which extending from the basin to the end of the splint, there hung over the patients hand, and, acting as a syphon, kept up a constant drip drip upon the wound.

We noticed also certain spring mattresses, or rather bedsteads, of ingenious construction; they were formed thus: all round the inner margin of the bedstead ran strong rods; to these at intervals thick wires were attached, and coiled loosely round till their ends were left projecting straight up in the air, or directed slightly inwards, and having their extremities formed as hooks. Each coil of wire thus constituted a separate spring, and when, by means of a strong web of canvass, the whole were united and then made fast by their hooks, the canvass constituted a most efficient mattress, peculiarly grateful to wearied patients. We should have remarked that each ward on the south side opens directly out on to a verandah, where patients may take the air, and on to which those who cannot walk may be wheeled in chairs. These seemed to be largely patronised. The wards themselves are rendered very cheerful by multitudes of coloured prints of all sorts, and we should remark that the offices attached to each ward are remarkably clean and free from smell. We were told that the committee looked strictly after these being kept properly.

Of the diseases to be seen on the Medical side nothing struck us as peculiar, but we were informed that intermittent fever, usually of a tertian type, was very common. Notwithstanding the many lines of vessels sailing from Southampton, we could learn of no disease being common in them, except in those on the West India passage; in these the disease just alluded to was most common, and their crews supplied most of the patients in the Infirmary. Firemen seemed to be peculiarly liable to such attacks. Seamen constitute a very considerable proportion of the patients here, and among them rheumatism seems common. This is not unfrequently followed by heart disease, generally mitral, but we could not find that the nature of their occupation predisposed them to any other form of this complaint, although it is generally alleged that it renders them liable to aortic regurgitation.

A case of Addison's disease in a man, aged 45, had been in

the Hospital a few days before our visit. The condition of parts found after death tends to confirm the tubercular theory of the disease; both supra-renal capsules were converted into a chalky mass, and the lungs were filled with tuberculous matter in the same condition, their apices being specially affected.

But a year ago, and the respected name of Bullar would have occupied a prominent place in connexion with this institution, now it is conspicuous by its absence, the whole family having died off. The present staff is constituted as follows:—*Consulting-Surgeon*: R. S. Fowler, Esq. *Physicians*: Dr. Maul and Dr. G. Scott. *Surgeons-Extraordinary*: J. Stace, H. Clark, J. R. Ware, and J. King Sampson, Esqrs. *Surgeons*: Dr. G. A. K. Lake, Dr. Langstaff, and J. Reeve Shorto, Esq. *Assistant-Physician*: Dr. Broster. *Assistant-Surgeon*: G. King, Esq., M.B. *Administrator of Chloroform*: W. Sims, Esq., M.B. *Dentist*: E. P. Bromley, Esq. The *House-Surgeon* is S. H. Hobley, Esq., formerly of King's College, for whose kind attention our best thanks are due.

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Medical Times and Gazette.

SATURDAY, AUGUST 27, 1870.

THE ADDRESSES DELIVERED TO THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association has, as is its custom we think, opened the Association and Congress-meeting season, and has just celebrated its annual gathering, the busy, noisy, smoke-canopied town of Newcastle-upon-Tyne having been the honoured *locus in quo* of its scientific, physical, and gastronomic labours, and the Association must be congratulated on having had eminently "a good time" in all senses. The gathering of members was large. The great amount of space which for two weeks we devoted to recording the proceedings in the general and sectional meetings, has amply shown our sense of their value. The weather was superb; the excursions and sightseeings were numerous; the entertainings and feastings innumerable and splendid, and the general hospitality untiring. Cordiality and good fellowship reigned everywhere and throughout, and all went merry as a marriage bell. The members must have all come away mightily refreshed and recreated in mind and body, and interpenetrated with a most grateful sense of the excellence and greatness of their Association. Before our recording pages are stowed away on the shelf, we would say a word or two on some of the addresses delivered during the meeting, not attempting to at all fully describe or criticise them, but simply to take some note of their characters and value.

The President for the year, Dr. Charlton—who five-and-twenty years ago had, at Sheffield, delivered the annual address to the then "Provincial Medical Association"—did not take any very wide or ambitious themes for his introductory address, but contented himself with first giving an interesting sketch of the past and present of Newcastle, chiefly from a sanitary point of view, and then with addressing himself to Medical politics, and pointing out the good work the Association may do towards settling the pressing Medico-social questions of the day. In the first part of his address he told us, among other interesting matters, that the mines around Newcastle, and the hours of work in them, are so well regulated, that anthracosis, or collier's lung, is very rarely seen; so rarely, indeed, that they have "to obtain their specimens of it from Belgium or from Scotland." His observations, in the latter part of his speech, on the aborted Medical Acts Amendment Bill and the Medical Council were moderate in tone; and he was rather happy, when very shortly alluding to the Contagious Diseases Act, in his remark on the "band of so-called strong-minded women and weak-minded men, who are striving to reverse the verdicts of the wisest and the best among the Medical Profession."

The Address in Medicine, delivered by Dr. Sibson, is certainly interesting and practical, but we venture to think that it required no little courage to make an "Address in Medicine" on such an occasion consist almost entirely of the author's treatment of cases of acute rheumatism and acute gout, in Hospital, from October, 1866, to May, 1869. The communication is undoubtedly a very valuable one, and could only have been produced by an immense amount of care and labour; but its value cannot be fully appreciated except after minute and careful study of the tables which illustrate it. We must also confess to feeling that a Physician shows unusual—well, we will say courage—who ventures to treat 74 cases of such a disease as acute rheumatism without giving any internal medicine. "Exactly one half of the cases were affected with inflammation of the heart." May we ask whether that is to to be considered a satisfactory result—to the patients? Dr. Sibson draws from his cases the inference "that we do owe to a marked extent the small proportion of cases of pericarditis, especially in the young patients, and the happy result of those threatened and affected with endocarditis, to the care taken to keep the inflamed joints at rest, to shield them from external pressure, and to give them ease." But it strikes us that the immense value of "Rest and Ease" in the treatment of inflamed structures can hardly be considered so new or so unrecognised as to need enforcing by so extensive an experiment as this treatment of acute rheumatism; and we would submit that though "a large number" of those patients "who were threatened and affected with endocarditis left the Hospital with valves faultless," so far as could be detected, it could not be known whether the affected valves had or had not been permanently weakened or damaged till the patients had returned into the battle of life, and for a time met its daily strain, wear and tear, and anxieties.

The highest honours of the meeting must, we think, be adjudged to Mr. Heath, who delivered the address in Surgery. He took for his theme modern operative Surgery, and in his very able, and at times very eloquent, address depicted it as characterised "by the boldness and magnitude of its proceedings, by its respect for the integrity of the human body, and its reticence of the knife, and by the general superiority of its results;" or, as he more tersely phrased it, "by its Audacity, its Conservatism, and its Success." Mr. Heath's grasp of his subject and familiarity with its details make his address valuable as an historical sketch, and prove him to belong to that band of able and accomplished provincial Surgeons who are an honour to the Profession. We commend to the attention of Surgeons, especially of country Surgeons, Mr. Heath's observations on the value of extension and of flexion in controlling the circulation in, and restraining hæmorrhage from, the extremities.

Of the minor addresses—those by the Presidents of sections—we have been enabled to present to our readers only that delivered by Dr. Rumsey to the section of Public Medicine; and this address, though we do not agree with all the views of its

author, we strongly commend to the attention of the Profession. It is remarkable both for the knowledge and learning it displays, and for the thoughtfulness and careful reasoning that distinguish it, while the many topics of which it treats are at times handled with no little eloquence.

We do not need now to tell our readers that we do not fully share Dr. Rumsey's admiration for the rejected Medical Acts Amendment Bill, that we did not and do not think that it was "correct in principle, simple in form, statesman-like in design, and capable of effecting an enormous improvement in the framework of the Profession," and we think that Dr. Rumsey treats much too lightly the strong objections made to the omission of the 18th clause of the Lord President's original Bill. A man who takes his stand on "abstract justice," may be for this work-day world as impracticable a reformer as the mere *doctrinaire*. But if Dr. Rumsey, or any one else, can produce a scheme for really and effectively preventing graduates of Universities and members of Colleges from practising unless they possess also the one-portal licence, the opposition to the ommission of the famous Clause 18, will at once cease, and no one will object to the universities and colleges conferring their degrees and diplomas how and when they like.

We have ourselves more than once pointed out as a very grave deficiency in the mere one-portal system that it provides no guarantee whatever that its licentiates shall be, and shall continue to be, men of high personal respectability, morality, and honour. We therefore can cordially agree with Dr. Rumsey when he treats of this topic, and observes that, "in striving zealously for the 'one portal' we cannot forget that membership of a College or gradnation in a University secures certain objects of high moral importance, which no State licence can secure;" and that "a high standard of Medical ethics can never be expected from the mere one-portal system, while the maintenance of that standard is essential to the character of a College." We cannot give more space to this important matter now, but we heartily thank Dr. Rumsey for the eloquence and force with which he treats the subject of Medical ethics. This part of his address, and his able and powerful comments on the agitation against the "Contagious Diseases Acts," are especially excellent and admirable, but the whole of the address well merits careful and attentive perusal.

THE HYGIENE OF WAR.—No. II.

Hospitals.

From the accounts already received from the present seat of war, it is evident that the magnitude and rapidity of the military operations, the overwhelming successes of the Prussians, and the disastrous collapse of the French, have produced in the Medical aspect of the position of both armies circumstances as unanticipated and unarranged for as those which, politically, have taken Europe by surprise. The enormous numbers of wounded on both sides during the three memorable days, August 14, 16, and 18, have as yet been only roughly estimated. On the French side alone 12,000 are said to have been killed, from 8000 to 10,000 have been taken prisoners, and of the remaining 28,000 or 30,000 wounded a very large proportion has fallen into the hands of the Prussians, whose Hospital resources—great though they are—had been already burdened far beyond their powers by their own wounded, who are considered to have been quite as numerous as those of the French.

For the first few days or weeks after such sanguinary engagements, and particularly while other military movements are in prospect or in progress, the task of simply attending to the most urgent necessities of the wounded as they lie scattered on the field, or are gradually brought together, is one which taxes to the uttermost not only the physical powers of individual Medical officers, but the administrative organisation of the whole Medical service of the army. It is hardly to be wondered at, under such circumstances, that, notwithstanding the dearly bought experience of the Peninsular, Crimean, and American wars, we hear of public buildings, private chateaux, churches, and even graveyards being temporarily crowded with wounded men. It is the expressed opinion of Dr. Hamilton, in his work on Military Surgery, that during the late American war multitudes of the wounded died in warehouses, store-rooms, factories, etc., whose lives might have been saved in properly constructed field Hospitals or tents, or even if they had been left upon the open field, exposed to all the vicissitudes of weather, but where the air was not infected, they would in all probability sooner or later have been restored to health.

The agglomeration of sick and wounded soldiers in buildings not originally intended for Hospitals conduces to the development of erysipelas, Hospital gangrene, and pyæmia in all its forms; whereas the experience of Hammond and other American military Surgeons was that such diseases never originated in tents, and that when they did occur in Hospitals or transports, the patients were benefited by being transferred to tents. Kraus, also, from the experience of the Austrians in 1859, states that it never could be discovered that gangrene originated in a tent, and that the most severe maladies ran their course more mildly, and were recovered from more quickly and perfectly, in tents than in the confined spaces of Hospitals. As an instance, he mentions that the mortality from typhoid fever treated in tents was 20·9, and in Hospitals 30·49, per 100 of admissions. In the treatment of scurvy, also, tents afforded great advantages. Attendance, diet, and medicine were the same in both, and it was to the disadvantage of the tents that they were used during the worst months of the year for typhoid, August and September, when the severest cases were admitted. It was, however, observed that, although the acute stage of the disease was more tractable, convalescents while in tents, particularly during changeable weather, were subject to bronchial catarrhs, diarrhœa, and dysentery; it was therefore proposed to send them into permanent buildings. It is better, therefore, at once to send the severe cases of disease into tents than that the tents should be used as convalescent wards.

Dr. Parkes, summing up the hygiene of field Hospitals in war, says that the moveable field Hospitals—regimental, division, and general—should consist of tents of good size, well ventilated, and with flaps by which they can, if desired, be converted into awnings; the tent-floor to be covered with clean and, if possible, *dried* earth or charcoal, and to be then covered with a waterproof cloth or boarded. The boards should be removed frequently and the earth cleaned, in order to prevent the accumulation of offensive rubbish. Dr. Hamilton, the American military Surgeon, from whose work we have made freqnent extracts, is also strongly in favour of the use of tents for military Hospital purposes, and gives many valuable hints as to how the energetic and efficient regimental Surgeon may by care and foresight provide many comforts for his sick and wounded men—as, for instance, how raised and separate bedsteads may be improvised with forked branches stuck in the ground, supporting side rails covered transversely by fragments of boxes or staves; or a raised sloping däis be constructed in a similar manner, reaching from the side walls to near the centre of the tent, and covered first with straw, then oilcloths, and then the blankets. He has often had to remark the practical differences among Surgeons in their power of adapting themselves to circumstances, and of providing comforts and accommodation for their sick. Some lose their tents, some do not pitch them, because they expect to move to-morrow or next day, and some never get them into order in less than three or four weeks. He describes the Hospital tent of the 7th Massachusetts Volunteers, under the charge of Surgeon Holman, as a model of neatness and comfort. It had a passage-way between the beds covered with cedar twigs, which were changed daily. In the rear was a neat little arbour made of cedar trees, inclosing a circular grass plat, and containing a seat of twigs under the shade of the trees. In the

ground was buried a box containing some ice, which he had managed to save, and still further in the rear was a cow, which had been led by one of the Hospital attendants across the Peninsula, and which was furnishing his sick men with all the milk they wanted. This Surgeon's tents were always pitched within one hour of going into camp, and they were in complete order the next day. As showing what *can* be done, the instance is worth quoting for the observation and imitation of the Medical officers of our own army, both regular and volunteer.

It is now also a generally admitted principle that the stationary general Hospitals in the rear should be of tents or wooden huts, but never of converted buildings—churches especially, as they are not only cold but often damp, and there are often exhalations from vaults—or of Hospitals used by other nations. Hammond states that in the American war the best size was found to be a ward for fifty men, with two rows of beds; length of ward 175 feet, width 25 feet, height 14 feet; superficial area per man 87 feet; cubic space per man 1200 feet; ridge ventilation by an opening ten inches wide, running the whole length of the roof. There were also openings below, which could be more or less closed by sliding-doors. Some of the American Hospitals contained from 2000 to 2800 beds, and were composed of such or very similar huts, arranged sometimes radiating from a circular or ellipsoid corridor, the centre of which contained the "administration;" or opening off two corridors, meeting at an acute angle; or crossing in the shape of the letter X. These two plans, however, are not considered good. The arrangement of the pavilions depends, of course, very much upon the nature of the ground; but the principle remains the same of having the numbers actually under the same roof as small as possible—a principle, by the way, for the first enunciation of which, as well as for its ultimate establishment, modern sanitarians have too easily obtained and too complacently assumed all the credit. Hennen, Millengen, Sir John Pringle, Sir James M'Grigor, and a host of other military Surgeons might be enumerated as energetic, but too long unheeded, exponents of the same principle of limiting, as far as possible, the number of sick treated under one roof. It is the opinion of Dr. Parkes that twenty-five beds would be sufficient in each hut, and that a collection of smaller Hospitals of 500 beds, separated by half a mile of distance, would be preferable to one large Hospital.

But in a great campaign the pressure of sick and wounded is always so enormous that the military Hospitals and Medical service can never suffice, and the care of the wounded becomes the duty of the nation. In the Austrian campaign of 1859 the method of distribution of the sick and wounded over a large tract of country and in many small Hospitals, frequently entirely removed from military control, notwithstanding the disadvantage of badly arranged transport and want of care *en route*, was attended by most satisfactory results, not only as regards the health of the sick, but the behaviour of the soldiers. The distribution spread no epidemic among the civil population, but, on the contrary, epidemics among the soldiers were arrested by it. Among the soldiers received into civil Hospitals, private dwellings, or institutions opened for the purpose, the mortality was only ·67 per cent. In the military Hospitals the mortality was 2·5 per cent., which was exceedingly small, having been less in the year of the war, 1859, than in the year of peace, 1858; yet, small as it was, it was far above the mortality in the civil Hospitals, and these, in their turn, had nearly double the mortality of the private nursing establishments. In the Hospitals near the seat of war the mortality was much greater, amounting to 8·5 per cent. of the admissions at Treviso; but allowance must be made for the greater severity of the wounds treated near the scene of operations, although large numbers of the severely wounded were taken to great distances in the rear.(a)

(a) Dr. Parkes's "Report on Hygiene for 1863;" "Army Medical Department Report for 1862," vol. iv. p. 350.

It is lamentable to learn, as stated by a contemporary, that notwithstanding the accumulation of this and similar evidence in the American war as to the beneficial results of voluntary effort in aid of the wounded, the power of organisation of the French military authorities has in this, as in other matters, appeared to have altogether failed under the strain of the present terrible war. The Voluntary Society of Paris for the Relief of the Wounded has been rendered almost impotent by having had the direction of its efforts placed under the orders of the "Intendance Générale," which has so long and so injuriously controlled the Medical department of the French army. Professors, Surgeons, and dressers have volunteered in immense numbers; but their services are still unemployed, in consequence of the multiplication of official forms and delays. Private individuals have offered beds. On the network of the Lyons railway there are said to be 6000 beds available, and 160 Medical men have offered their services, but without avail, and the sufferings of the wounded on the French side have been frightfully aggravated by official incompetence.

NEUTRALITY OF AMBULANCES AND SURGEONS DURING WAR.

When noticing the proceedings of the various international conferences for carrying out the provisions of the Geneva Convention for the aid of the sick and wounded in war, we expressed our doubts as to the possibility of securing absolute neutrality for the members and *materiel* of the respective aid societies. It appeared to us that such neutrality could only be obtained by the exhibition on the part of the combatants of a forbearance and humanity which cannot be hoped for until the happy time when wars shall cease. We have been in no way surprised, therefore, by hearing of charges of infringement of the neutrality of ambulances being interchanged by the contending armies. It is all very well to declare the neutrality of divisional or general Hospitals along the base of operations, but even this is imaginary, and can only exist without infringement so long as the base is protected by the army in front and complete communication maintained. In case of the position being carried by the enemy, or the flank being turned, Hospital establishments must take their chance during the heat of the engagement, the most that can be claimed for them being that they should not be wantonly or unnecessarily destroyed by the advancing enemy, but even to procure this amount of exemption they must not be occupied or used offensively or defensively by the troops endeavouring to maintain the position.

For regimental or brigade field Hospitals, and the Medical officers and attendants employed therein, it is simply absurd to expect that neutrality can be insured. The duties of the Medical officers engaged in the first line of relief carry them frequently under fire. Their dress, even when supplemented by the red cross badge of the Geneva conference, is not sufficiently distinctive beyond a very short distance to protect them from the fire of the enemy, and in the smoke and hurry of action a train of ambulance waggons bears too close a resemblance to ammunition-carts or artillery to escape being occasionally made an object of attack. The dangers incurred by military Medical officers are therefore twofold—firstly, the chance of injury by the fire of the enemy during the engagements; and, secondly, the risk of fever and pestilence in the crowded Hospitals afterwards. Members of our Profession, either civil or military, are not accustomed to shirk the latter danger, or to take any particular pains to secure a neutrality from it, and we feel certain that they need not the protection of a theoretical neutrality to carry them through the former wherever humanity may require their presence.

It cannot, however, be denied that it would be very desirable that the dress of military Surgeons and Hospital attendants should be such as to be at once recognised at any distance by friend and foe; but we are far from seconding the recent suggestion of a correspondent of the *Times*, that yellow would

be the most appropriate colour for the purpose. Very few complexions could stand the contrast, and still fewer tempers could sustain the fire of jokes which the association of ideas would suggest on the sight of a Medical men in such a costume, although it might avert the fire of the enemy. Black is the colour most affected by the civil Profession, and there should not be much difficulty in devising a black undress uniform, with badges sufficiently distinctive for service; and for full or court dress what could be more striking and handsome than black with silver lace?

THE WEEK.

TOPICS OF THE DAY.

A MEETING of the Executive Committee of the General Medical Council will be held in October. The ordinary meeting of the Council will not take place this year. For ourselves, we do not regard the passing of a Medical Reform Bill next session as by any means a probable event. We have heard of several Bills which are said to be in course of preparation, but unless some one of them obtain the support of the great bulk of the Medical Profession on the one hand, and do not, on the other, provoke the opposition of any of the Medical authorities of either England, Scotland, or Ireland—moreover, unless it be approved by the General Medical Council, and obtain some support from the Government, there will not be the slightest chance of its being passed by both Houses of Parliament. If the Bill is to be a popular one with the Medical Profession—and assuredly no unpopular Bill will pass—it must embody the one portal system, and it must modify to some extent the constitution of the General Medical Council. But on these two points very different views are held. Some would maintain the one portal principle, but admit exceptions in the case of the merely honorary Medical distinctions granted by Universities, and if these exceptions were carefully guarded, we do not think such a compromise should be refused. But the question is, whether the Universities would be content to accept the power of granting merely honorary Medical degrees under such limitations as would imply a restriction of the recipients to professors and men who have followed Medicine merely as a branch of science. We strongly suspect that the Scottish and Irish Universities, and even the University of London, would refuse to part with any of their rights to confer Medical degrees on all comers, and we need not say, if these rights are to be maintained in their entirety, to talk of establishing a single portal to the Profession is simply childish. Then, again, the General Medical Council and the constituencies returning its members are not very likely to agree with the propositions for a reconstitution of the Council which are most popular abroad. And, whatever the Direct Representation Committee of the British Medical Association may say, we know that there are two entirely distinct sets of opinions held amongst well-informed members of the Profession as to the manner in which the General Medical Council ought to be modified. This being the misty state of the Medico-political horizon, we think that it behoves the leaders of the Profession to bring about such reforms as are within their power without an appeal to the Legislature. Let the Medical corporations of England set an example by arranging a good practical conjoint examination for the general Practitioner, and let us hear no more of miserable jealousies and bickerings, and of endeavours to heighten the prestige of one corporation at the expense of another. The Royal College of Surgeons, standing as it does on middle ground between the Royal College of Physicians and the Apothecaries' Society, should hold out a hand to both these bodies, and invite them to join with them in constituting an effective board of examiners in Medicine, Surgery, and Midwifery for the examination of the great mass of English Medical men. Such a combination would confer a real benefit on the student by diminishing the number of his examinations and simplifying his course of study; it would be well received by the General Medical Council and by the Profession generally; it would set a good example to other Medical bodies, which, if followed, would, to no small extent, obviate the necessity for immediate Medical legislation. We trust that any efforts made in this direction by the Council of the Royal College of Surgeons—and, as we stated last week, the Committee of the Council have been empowered by that body to again open negotiations—will be successful.

A case that has been recently heard at the Lambeth Police-court affords a good illustration of the inefficiency of the Sale of Poisons Act, as a protection to the public, and a preventative of accidental and criminal poisoning. From the evidence given in the case, it seems a man and his wife named Davis had determined that the woman should take poison. The woman said she would take it, and the husband was heard by a person living in the same house to send one of the children for a pennyworth of oxalic acid. Evidence was given that the child went to a chemist's shop in Camberwell and purchased half an ounce of oxolic acid. The paper which contained it was labelled "poison." The child returned, the poison was dissolved, and the woman was only saved from death by a lodger, who dragged the cup from her after she had swallowed some of its contents. Now in this case the provisions of the Act were strictly complied with. Oxalic acid is one of those poisons contained in the second list in the schedule of poisons attached to the Act, which may be sold by a registered chemist and druggist to any one, provided that the package be labelled "poison." But what is the value to the public of a law for restricting the sale of poisons which allows any chemist to sell to any child, madman, or idiot for a penny a fatal dose of one of the most powerful, rapid, and certain?

A paragraph has appeared in the *Liverpool Post* announcing the outbreak of a new epidemic at Colchagua, on the coast of Chili. It is described as an epidemic and very fatal fever, accompanied in the second or third day by gangrenous ulcerations of the face, which especially attack the nose and mouth. This account, of course, is of doubtful truth, and, until its confirmation, it is of no use to speculate upon the character and origin of the alleged new disease. But the history of epidemics furnishes so many instances of the origination and spread of new forms of contagious disease that there is no improbability in the statement. The Black Death, which began in Asia and spread over the whole of the civilised world in the fourteenth century, the sweating sickness of the sixteenth, cholera and cerebro-spinal meningitis of the nineteenth, are all examples of new epidemics. The Black Death was not identical with ordinary bubo-plague, and cerebro-spinal meningitis is an entirely different disease from the typhus which is popularly known as brain fever. It must be remembered that whilst the advance of science has done much to improve the sanitary condition of the population in civilised countries, it has also done much by the increase and rapidity of intercommunication to facilitate the spread of epidemics. Another Black Death would not now take several years to spread from China over the world. Such a report, therefore, as the *Liverpool Post* has circulated on the authority of a Chili paper, the *Libertad*, should not escape the attention of our sanitary authorities.

The life of the late Sir Frederick Pollock afforded a good case in proof of the fact that continuous mental exertion extending over a long life is not incompatible with wonderful physical health and bodily strength. The late Chief Baron lived to his eighty-seventh year; he worked hard as a boy at school, as a student at Cambridge, as a lawyer, a member of Parliament, and as a judge, and because his weighty occupations did not give him work enough, he turned to science in his

hours of leisure. With all this brain-work he managed to keep a firm and elastic step and a matchless appetite, when many men who have led a life of idleness are tottering on the brink of the grave.

We are glad to notice that Mr. Goschen is holding out a hope that the system of placing pauper orphans in country homes under proper regulations may be largely introduced into this country. Of course, a system of boarding out pauper children must be hedged with careful precautions against abuse, but England can hardly expect that these boys and girls will grow up healthy and useful members of the commonwealth in the depressing surroundings of workhouse life. If English ladies will devote themselves to the care and education of these children, and provide for them healthy and bright, however economical, homes, they will greatly benefit the community at large, and ought to receive all help from the central and parochial Poor-law authorities.

The trustees of Anderson's University, Glasgow, have elected Dr. T. E. Thorpe, of Owen's College, Manchester, to succeed to the Chair of Chemistry, vacant by the death of Dr. Penny.

The convict Carver, on whose case we commented last week, has been respited by Mr. Bruce. It was evident, from the summing-up of Mr. Justice Blackburn, that a doubt existed in his mind as to the full guilt of the prisoner. No doubt the prisoner and his wife were quarrelling, and she was stabbed with a knife which he held in his hand; but the direction of the wound over the heart from below upwards rather confirmed the supposition that the blow was accidental, and this throughout was the prisoner's account of the matter.

Mr. R. Brudenell Carter has been appointed Ophthalmic Surgeon to St. George's Hospital and Lecturer on Ophthalmic Surgery in St. George's Medical School, in the place of Mr. Power, who has accepted a similar position at St. Bartholomew's.

THE MIDDLESEX HOSPITAL.

At a special court held at this Hospital on Thursday, August 25, Mr. Hulke was appointed Surgeon, and Mr. Henry Arnott Assistant-Surgeon. At the same time, Dr. Greenhow was appointed Physician, with a limited number of beds, having served for a long term of years as Assistant-Physician to the charity.

THE EARL OF DERBY ON SANITARY MEDICINE.

The Earl of Derby, on laying the foundation-stone of a new Hospital at Bootle, made some very judicious observations on the value of sanitary Medicine. He showed that by attention to temperance, the supply of pure water and air, broad streets and commons, precautionary measures to prevent disease, a vast amount of mortality and suffering might be prevented. Lord Derby did not perhaps advance any novelty, but he did enumerate striking truths in a striking manner, and promised to set a good example himself so far as Bootle was concerned.

RELAPSING FEVER IN LIVERPOOL.

The number of patients suffering from fever, chiefly of the relapsing type, in the Liverpool parish institutions on Saturday, the 20th inst., was 568, or 61 more than on the previous Saturday. The services of three additional Medical officers have been obtained by the select vestry during the epidemic, and under the able supervision and with the co-operation of Dr. Robert Gee, the Physician to the Fever Hospital, this additional aid has been found as yet quite sufficient for the emergency. The names of the additional officers are—Dr. Robertson (who is in charge of the fever sheds in Ashfield-street), Dr. Carter, and Dr. Clements. The two latter are engaged on ordinary Hospital duties, allowing, therefore, Dr. Kirkpatrick and Mr. Packman (two of the older officers) to give up their time to the fever patients.

"NUNC AUT NUNQUAM."

It is much to be regretted, while the progress of events at the seat of war is so startlingly rapid, that as yet we have not heard of any British Medical officers having been despatched to the head-quarters of either army as accredited agents of our Government. The delay is most unfortunate, and the more it is prolonged the greater will be the loss of opportunity of acquiring through skilled and scientific observers a detail of the Surgical history of the war. Nearly a month has elapsed since Mr. Cardwell announced his desire to despatch a few Medical officers to each army. The promptest plan would have been to have sent the Medical officers off at once with a Foreign-office letter of introduction, and doubtless they would have worked their way to some point at which they could by this time have been accumulating a vast fund of information on field equipment, Surgery, and hygiene. Even yet this might be done.

THE EPIDEMIC OF SMALL-POX IN PARIS.

For the week ending August 13 the mortality from small-pox amounted to 176 in a total mortality of 1122. For the week ending August 20 the mortality from small-pox was 187 in a total mortality of 1165.

A HINT FOR HOSPITALS IN NOISY THOROUGHFARES.

Every one who has passed down the part of Holborn which has been recently paved by the Val de Travers Asphalte Company, must have been struck by the unwonted silence of this formerly very noisy thoroughfare. It has been quoted as an objection to this method of repairing roads in London that passing vehicles make so little noise as to considerably increase the risk of accidents to crossing pedestrians. But surely this is not the only way in which the new substitute for granite chips may do good to the Hospitals? Such a process employed in the front of some of these institutions would be of inestimable value to teachers of auscultation, and would ease many an aching head which now tosses wearily from side to side, petulantly groaning as the rattling cabs and omnibuses clatter past the windows. We especially commend this suggestion to the notice of the authorities of University College, St. George's, Middlesex, Charing Cross, and the London Hospital.

HEALTH OF THE TROOPS AT ALDERSHOT.

A correspondent informs us that latterly there has been an increase in the sick list at Aldershot, chiefly from venereal diseases. The frequent arrival of fresh troops in camp during the dull season will probably account for this. The inspection of the men on arrival is still carried out, but of course detects only those who are actually diseased at the time; others during the stage of incubation escape observation. A few cases of choleraic diarrhœa have occurred within the last fortnight, and one death from that cause occurred last week. The disease is probably of local origin, as we are informed it is confined to one regiment. It is, however, well worthy the serious attention of the Medical and military authorities in the camp just at this season. Cases of scarlet fever are still frequent among the children.

SIR DOMINIC CORRIGAN, M.D., M.P.

Sir Dominic Corrigan has been returned Member of Parliament for Dublin by a large majority. That he is a man of great ability, a scholar, and an orator, all will admit. But it is doubtful whether the cause of Medical reform in the House of Commons will be benefited by his presence. He ignored all reference to Medical affairs in his address to his constituents, and really represents the Radical interests of the Irish capital. Bearing in mind the part Sir D. Corrigan has taken in the General Medical Council, we can scarcely look for enlarged views from him on questions affecting our brethren in

Parliament. He is too much "a party" man to be a great statesman, too cretchety to form views for the good of the many. But he is eloquent, and will to a certain extent be a "power" in the House. There are many subjects on which he can enlighten the assembly which he is about to enter, and some in which he may render good service to his brethren, without interfering with his peculiar views respecting their education and the form of government under which he thinks it desirable that they should be placed. The Medical phalanx in Parliament was never so numerous or strong as at the present time, and if brought with its united force to bear on any question, must exercise great influence upon it. Entrance into Parliament often makes great changes in men; let us hope that it may have the effect of enlarging the views and modifying some of the opinions of Sir D. Corrigan.

A NEW MILITARY COMMANDANT FOR NETLEY.

Some time ago it was announced, and the news was received with satisfaction, that an economical Government had resolved on doing away with a useless post—that there should no longer be a military commandant at Netley Hospital. Contrary to what might have been expected, the sky did not fall in, nor did any other prodigy appear; things worked smoothly enough, and the principal Medical officer was in his true place at the head of the Hospital. About this time, too, a commission visited the Hospital charged to find out if anything could be done to promote its efficiency and cheapness of management. But Parliament was prorogued, the members were off to the hills, and the temptation for a bit of jobbery was too strong to be resisted at Whitehall. The commission so ostentatiously nominated had not yet sent in their report—a report which it is almost certain will condemn the twofold sway at Netley Hospital; but there were now no independent members to ask awkward questions in Parliament, and a new military governor was forthwith appointed. Only that a man more nearly of a rank with the principal Medical officer should be placed over him, a Lieutenant-Colonel was substituted for a General-Officer, for Lieutenant-Colonel Maclean is to have General Wilbraham's place. Such an appointment cannot but give general satisfaction in the ranks of combatants, for has not the Medical service thereby received another snub?

SOUTH DUBLIN UNION.

We are glad to announce that the guardians of this Union have done an act of justice to their Medical officers. They have advanced their salaries, not as the *Daily Express* says, from "a generous impulse, but from a mature consideration of what was just towards the officers and beneficial to the public interests." The *Express* remarks:—

"We cannot see the reasonableness of the distinction which some guardians appear to draw between private Practitioners and public officers. The whole community have an interest in providing the best possible advice for the poor. In doing so they are consulting best for their own protection. There is no adequate reason why those who discharge public duties, which are more laborious and responsible, should be recompensed in a parsimonious and miserable spirit, which in the case of private practice would not be exhibited. We think the guardians have adopted an enlightened view of the obligations which they have undertaken, and have done wisely in acting liberally towards their officers, especially at a time when the services of the Profession are in more urgent demand."

FROM ABROAD.—FRENCH SANITARY PREPARATIONS FOR THE WAR—MYOPIA IN RELATION TO MILITARY SERVICE.

Notwithstanding the admirable organisation of the *ambulances internationales* in France, described by the correspondents of our own and other journals, it is very doubtful whether they are really doing much service. In the first place, their numbers are so few that they are, to use a common phrase, but as a "drop in the ocean" as compared with what is required. And this description of service is pre-eminently required in France just now, for, as the fortune of war has at present gone, thus far the French military Surgeons are not able to get at their wounded, left behind as they have necessarily been during the retreat. Thus it is stated, on good authority, in the *Gazette Hebdomadaire* of the 19th instant, that the number of wounded which had then come under their treatment had not amounted to 2000. Fortunately, several of the military ambulances, like that of M. Legouest in M'Mahon's corps, have been captured, and will therefore be able, in this indirect way, to assist the Prussians in succouring their unfortunate countrymen. The international ambulances, owing to their protected condition, and power of moving in all directions, might do much more good were they in greater numbers, and less fettered by the *intendance* under whose direction they have been placed. M. Nélaton has announced in one of the journals that many wounded, distributed in private houses near the seat of war, and for whose wants the military Surgeons cannot provide, urgently require aid from the voluntary ambulances. The reserve of these last has been insufficiently provided, and this would seem to have arisen from a not sufficiently liberal appreciation of the offers of service at first very freely tendered. These ambulances are not without their dangers, for not only have they been fired into, but the first sent had itself to bring the wounded from the field of battle. The two others, as yet, do not seem to have been able to enter any active service, but at all events they are on the spot.

If there is any shortcoming in the attendance given to the wounded, it will arise solely from the bad arrangements of the authorities, for the Profession is enthusiastic in its offers of personal assistance, money, and even the provision of beds. M. Devilliers states, as the result of a journey along the Lyons and Mediterranean Railway, to which he is Surgeon-in-Chief, he finds that not less than 6000 beds can be disposed of, the 160 Medical officers of the line all cheerfully offering their gratuitous services. The dissemination of such of the wounded as can travel will be freely practised wherever possible; and M. Boinet, in a recent letter, calls attention to its importance in Paris itself, not only as preventive of the consequences of agglomeration, but as enabling the patients to be far more effectually attended to by the numerous Medical men which this plan can bring into activity. From all sides the most encouraging promises of succour arrive, and doubtless before long means will be found to utilise so much good service now awaiting to be employed. That under so terrible and unexpected an emergency some confusion should arise and some errors should be committed is only natural; but at all events it is most cheering to find our *confrères* acting with so much determination and abnegation.

M. Giraud-Teulon has just published an interesting paper upon "Myopia in relation to Military Service." After observing that, contrary to the practice of the French army, myopia is not allowed as a cause of exemption in the German army, he goes on to observe that the opinion so generally entertained that the eye in a subject of myopia is a good eye is a mere prejudice. This condition of the eye, which is said to be so fitted for the execution of delicate work, is in fact dependant on pathological alterations. The globe passes from the spheroidal into an ovoid type with an antero-posterior axis, this change being due to a ramolissement, distension, and inflammatory condition of the posterior moiety of the deep-seated membranes of the eye. The eye which becomes myopic is at birth spherical, and the changes in its form are only brought about gradually. Leaving out of consideration the primary or native conditions under the operation of which an eye may become myopic, the occasional circumstance which leads to myopic elongation in a predisposed eye is its assiduous employment upon near objects. There are abundant proofs of this. Donders, in 1858, examining his statistics, was surprised to find that myopia is a malady

only of the well-to-do classes, and that while the inhabitants of towns had rendered him a large tribute, he had scarcely derived any cases from those of the country. He found, indeed, that Ware, nearly half a century since, had made a similar remark when comparing the rarity of myopia in the army and its recruits, and in the military schools, with its frequency at Oxford and Cambridge. M. Giraud-Teulon finds the same observation holds good in relation to the French army, the number of exemptions on the ground of myopia not exceeding 4 or 5 per 1000 in the country districts, while in the town districts it is much larger. He refers also to the laborious personal researches of Dr. Cohn, of Breslau, made on 10,000 schoolboys and students, the result of which was that he found 1004, or one-tenth, myopic. His conclusions are that he found no school without myopia; but this was relatively rare (1·4 per cent.) in village schools as compared with town schools, where it prevailed in 11·4 per cent. In the primary schools of towns there were 4 or 5 per cent. more cases than in those of the villages; and that in them the proportion of myopia increased with the character of the school, there being 6·7 per cent. in primary schools, 10·3 in medium schools, 19·7 in normal schools, and 26·2 in the gymnasia and universities. In the Paris Polytechnic School, also, at one of the recent inspections for admission, myopia was found to be as high as 35 per cent. Moreover, M. Cohn found myopia prevalent in proportion to the time the pupils had been in the schools, it not having been found at all among those who had not attended them during a quarter.

It is evident, then, that among other causes myopia is the result of an assiduous use of the eye upon near objects, and the consequent tension of the eye in this form of vision. If on quitting the schools the subjects of myopia no longer employ their eyes in this manner, the affection makes no farther progress, but passes from a more or less acute into a stationary condition, and in the progress of years may seem even to amend. But if occupations requiring continued near application of the eye are pursued, then the myopia becomes greatly intensified, and alterations in the deep-seated membranes are set up, giving rise to changes of such importance as effusions of blood into the choroid or vitreous, serous infiltrations, inflammatory opacity of the vitreous, detachment of the retina, cataract, and at least central scotoma through absorption of the choroid.

In respect to military service, the French service rejects all subjects of myopia, except the officers serving in the *armes savantes*—viz., those who are derived from the Ecole Polytechnique and of the Etat-Majeur. As already seen, these schools furnish a large contingent of myopic subjects. In Germany no exemptions are made, and indeed, if they were allowed in a country where study is so prevalent, the number would be extremely large. The wearing spectacles may well be set against the advantage of having soldiers who are well instructed, and able to find their way in an unknown country by means of the constellations. M. Giraud-Teulon calls attention to the importance of revising the old tests for myopia, which frequently allowed of its simulation being practised with success. With the ophthalmoscope and a drop of atropine it may be exactly ascertained and measured from mere objective signs, independently of any replies on the part of its subject. He is of opinion that the present exemption on its account should be diminished, but that those who are admitted into the army who suffer from it should not be put to services calculated to aggravate it. The number of exemptions in the French service from affections of the eyes, he says, is enormous, and he evidently believes that many of them are ill-grounded, owing to the incompetency of the observers. He thinks that they should only have temporary effect until their validity is inquired into by a council of revision well acquainted with all the improvements in diagnosis.

An Enemy in the Rear. — It is rumoured that dysentery and diarrhœa of choleraic proportions is prevalent amongst the German troops on the Rhine. The presence of cholera in the Black Sea must not be overlooked.

THE MEETING OF THE BRITISH MEDICAL ASSOCIATION AT NEWCASTLE.

(*From our Special Correspondent.*)

If we have not dwelt upon the scientific aspects of this meeting, it is because the festivities claimed so large a share of our attention, science being pushed into the background for the time being. But now, when we can more calmly survey this important department of these annual gatherings, we would consider for a moment what has been, or promises to be, the outcome of the meeting. Our readers will be able to judge for themselves, from the papers and abstracts we have already published, the value of the communications made to the Association. Most of the papers read were of a practical character, and will, it is to be hoped, have the effect of advancing Professional knowledge in reference to the points they treat upon. We regret that we cannot reproduce the discussions which followed the reading of some of the papers. These were mostly highly instructive and valuable. The ripe experience of the general Practitioner and the culture of the consultant are elicited, and these constitute a happy combination, of which it would be well if we heard more. The titles of some of the papers were novel and curious, but still instructive.

No department of Medicine was unrepresented. The youngest of the sections, the psychological, fully asserted her right to be heard, and worthily upheld the dignity of mental science.

The annual museum deserved a much more detailed examination than we could give it. Not to speak of books shown by Messrs. Churchill and Sons, H. K. Lewis, and others, there were two hundred and twenty-two objects exhibited. Drawings and photographs of great interest and beauty were contributed by a few gentlemen. Those shown by Mr. Hutchinson were admirable examples of disease, mainly of the skin. But they showed more than that—they showed his rare skill, industry, and knowledge in selecting the examples for depiction.

The pathological preparations were also instructive. The specimens of drugs, chemicals, etc., were, indeed, most of them "new and rare." Hydrate of bromal, ethal (a solid alcohol made from spermaceti), recrystallised chloral, suppositories, and pessaries containing chloral and other drugs, etc., claimed attention.

There were several new instruments of considerable interest, and a collection of Medico-electrical apparatus, the latter shown by Mr. Brady, of Newcastle, well known as an able pharmaceutist.

Those who found time to go to the great manufacturers, no doubt, learnt much; for ourselves we found the days too short, although the summer sun did linger in the western sky somewhat longer than in more southern parts.

We would not close this notice of a most successful meeting without saying a word of thanks to those who have made it successful. We refer to the members of the local committee, whose exertions were, as they deserved to be, happily crowned with success. Those who visited Newcastle will not soon forget the names of Charlton, Embleton, Philipson, Gibson, Gibb, Arnison, Humble, Armstrong, Nesham, Banning, Russell, Grainger Stewart, and others (as the sheriff, Dr. Gregson), to whose friendliness they were indebted.

The Head Mastership of the Royal Medical College, Epsom, vacant by the preferment of the Rev. Robinson Thornton to the Wardenship of Trinity College, Glenalmond, has been conferred upon the Rev. Dr. W. D. West, of St. John's College, Oxford.

Carbolic Acid and Street Watering.—Dr. Whitmore, in his Report of the Health of St. Marylebone for August, says:—"During the summer most of our crowded streets have been watered on alternate days with a weak solution of carbolic acid, as has been the custom for the last four years, and there is no doubt that this excellent antiseptic and disinfectant has been very beneficial in a sanitary point of view. The inhabitants of those streets have often expressed satisfaction at the freshness and removal of disagreeable smells which this acid produces, and they regard it as an addition to their comfort."

THE INDIGENCE AND ASSISTANCE PUBLIQUE OF PARIS.

A RECENT number of the *Revue des Deux Mondes* contains a paper entitled as above by M. Maxime Du Camp in continuation of his descriptive account of Paris, which has excited so much attention. After briefly sketching the history of the various attempts that have been made for the provision of the indigent population of Paris, he arrives at the law passed in January, 1849, which established the existing "Conseil de Surveillance," and, by centralising all power relating to Hospital and charitable assistance in the hands of this body, has led to some excellent results. By assuring unity of impulse in the various services, it enables these to concur in the same object, stimulates charitable action, and, so to say, regulates it, distributing succour with a knowledge of the causes of requirement, and proportioning it to the resources at command and the urgency of the necessities of those who seek it. For this purpose the "Assistance Publique" has under its direction 8 General and 7 Special Hospitals in Paris and 3 in the country for the treatment of scrofulous children, 10 Hospices, 3 "Maisons de Retraite," 20 Bureaux de Bienfaisance, and 57 Maisons de Sécours. It also has under its direction the charitable aid given *à domicile*, and is the legal guardian of orphans and lunatics. It employs 6338 agents, 1989 of whom belong to the Medical Profession.

A tradition is generally accepted in Paris that the possessions of the Hospitals are something immense; but, in fact, if the "Assistance Publique" had no other resources than the legacies that have been left to it and the donations made to it by charitable persons, one half of the Hospitals would have to close their doors. Its fixed possessions have only accumulated very slowly; but the record of the names of the 8267 benefactors who have enriched the patrimony of the Hospitals from the time of St. Louis to the present day has been religiously preserved. At the time of the Revolution the Hospital fortune was estimated at 8,087,980 livres; but at the present time it is much less considerable, although during the last half century it has been enriched by many legacies. According to the most recent returns the present possessions of the Assistance Publique only bring in a revenue of 3,870,858 francs. To this utterly insufficient sum have to be added 6,369,872 fr. derived from the following sources—viz., 944,000 fr. from payments made by certain residents in the Hospitals and Hospices, 3,808,388 fr. from sales effected in the establishment of the *service général*, 1,184,434 fr. from payments made for the insane by the Department of the Seine, as well as 442,050 fr. for the care and clothing of orphans. But these are only repayments for disbursements already made, and are of no profit to the Assistance Publique. It has, however, other resources in the sale of products from the Hospitals and Hospices amounting to 238,550 fr., in a share of the tax on sepulture (203,000 fr.), the receipts of the *monts de piété* (725,000 fr.), and the tax on the receipts of theatres, public balls and concerts, estimated at 1,750,000 fr. Against this last item the directors of the theatres have of late made a most determined opposition or even actual resistance; but M. Du Camp in nowise sympathises with them, believing it to be a very just tax, which does not, in fact, fall upon the directors, but upon the frequenters of theatres. When first instituted it was collected at a separate pay-place in the theatre, at the rate of 60 centimes for the boxes and 20 for the pit; and it was only for the convenience of the public that the sum was included in the payment for admission to the theatre, and afterwards repaid by the directors to the Assistance Publique. The director of a theatre has no more right to regard this as part of his receipts than a railway director would have to so regard the tax which is included in the payment of fares. A diminution or abolition of the octroi seems to us to be a far more urgent reform than the removal of this tax on pleasure seekers. Summing up the whole of the receipts, they are found to amount to the considerable sum of 13,204,280 fr.; but even this is far short of what is required, for the calculated annual expenditure of the Assistance Publique amounts to 23,806,027 fr. The balance is made up by the Paris municipality, which contributes 10,601,747 fr. This is a large budget, and more than one European State has not a larger one for all its purposes; and if to this are added the money and articles in kind supplied by the various forms of private charity, M. Du Camp states that there will be no exaggeration in estimating the sum paid for the indigence of Paris at 40,000,000 fr.

The Assistance Publique possesses large establishments where it prepares or stores away all that it requires for its daily consumption, suppressing as far as possible the agency of middle-men, and securing the purity of the articles employed. Thus it has its cellars, butchery, bakery, pharmacy, and central magazine. The bakery is on a very vast scale. In the grinding department of it a steam-engine of 95-horse power puts into motion an English mill of the most modern construction in a building five stories high; vast and well-ventilated granaries store away the corn, while the flour is carefully examined from time to time to see that it sustains no harm from keeping. With respect to the unground corn, an interesting experiment has been tried as to its conservation. Six immense iron grain pits, capable each of holding 600 hectolitres of corn, were first exhausted and then charged with azote. The first of these was filled with corn in 1863, and that which is now taken from it is of irreproachable quality. In the bakery there are ten kneading troughs set into motion by a steam-engine of 16-horse power, which works day and night. Ten large ovens are kept constantly heated, as, indeed, they must be, in order to supply the 20,000 or 25,000 kilos. of bread required daily. It is good, wholesome, well-tasted bread, but soon becomes dry, which is attributed by some to its mechanical production. It is not so white as is usual with Parisian bread, a portion of the bran immediately beneath the husk being intentionally retained, owing to its nutritive qualities.

At the Pharmacie Centrale, the Assistance Publique has its large depôt of medicinal agents, whence it supplies all the Hospitals and the Maisons de Sécours. To do this, of course it must be on the largest scale, and the profusion of its supplies is remarkable. It has its separate cabinet, where all the more dangerous poisons are stored, and a very large department, as would be expected in France, as a *herbaristerie*. The laboratory is kept in a state of constant activity. Enormous metallic pans filled with the various syrups are in a state of ebullition, which men, reeking with sweat, keep constantly stirring. Knives for slicing liquorice and other roots, as well as the pestles, are kept in constant movement by steam; but of all the mechanical agents that which is kept most constantly active is the mill for grinding linseed. It is never at rest, sacks as large as those used for corn being continually filling in order to be expedited to the different Hospitals. In the courtyard there is a constant bustle, large casks of orange-flower water and other productions arriving, while numerous carts are lading with supplies for the Hospitals.

The Magazin Centrale is quite a new part of the establishment, only having been built in 1868. In it are stored away in separate pavilions all articles required for Hospital use, any one being peremptorily rejected that does not correspond exactly with the model deposited under lock and key in what might almost be called a museum of samples. Oils, dry vegetables, implements for household cleaning, beds, tables, chairs, plate, etc., all find their appropriate places. Side by side with rows of tin bowls and coarse pottery, destined for the Hospitals, stand other articles in porcelain, crystal, plated, etc., intended for the hospices, at which considerable sums are paid for board. In another pavilion are seen regular stacks of crutches and supplies of every other instrument that ingenuity has contrived in aid of the sick; materials for the various articles of dress are ranged in colossal pigeonholes in perfect order, together with caps, stockings, galoshes, and supplies of old linen, intended for conversion into charpie. Other galleries contain ready-made clothing for both sexes and different ages, all arranged in separate carefully pinned parcels, each containing a complete *trousseau*, designated as a *vêture*. The babies too are not forgotten, for here are large supplies of *layettes* or parcels of child-bed linen, which are in such constant demand. Then there are the *ateliers* or workshops in which the articles of clothing are cut out and made up, mattresses cleaned and restuffed, bandages cut and rolled, plaisters pierced with holes, and charpie scraped. This last article is in such demand that the old linen furnished by the Hospitals no longer suffices for it; and the Assistance has every year to make purchases of old sheets, napkins, etc., in order to keep up the supply. When the bandages are prepared they are stowed away in boxes appropriated to them, and some idea of the quantity required may be got from the fact that 144,000 metres of new cloth bandages have to be issued annually.

The indigent population of Paris is a very numerous one, but it is only since 1829 that any exact figures can be attained

respecting it. Then there were 62,705 indigent persons in a population of 816,486, or a little more than 1 in 13. At the present time it is 1 in 17. During 1869, 129,911 indigent persons were relieved by the instrumentality of the Assistance Publique. To accomplish this task it had at its disposal twenty *Bureaux de Bienfaisance*. There is one of these in each arrondissement, presided over by the mayor, and managed by a council composed of the mayor and assistant mayor and twelve administrators, together with a number of commissionaires and ladies of charity, according to the wants of the locality. Each arrondissement is subdivided into twelve zones, and each zone is under the especial surveillance of one of the twelve administrators, who decides upon the nature and amount of the assistance to be awarded. The Medical men and midwives attached to the bureaux are appointed by the Préfet de la Seine. Every one claiming aid has to be registered, and after his claim has been examined into and pronounced valid the indigent person receives a card of a different colour, according as the aid is to be annual or only temporary. The annual tickets are given to persons suffering from bodily infirmities or who have reached an age incapacitating from work. To such persons between 70 and 79 years of age 5 francs per month are given; between 79 and 82, 8 francs; between 82 and 84, 10 francs; and above this age, 12 francs. The blind, paralytic, epileptic, and persons suffering from cancer receive from 5 to 10 francs, these payments not preventing the various recipients also from obtaining tickets for bread, meat, or clothing. Many wretched persons of this description cannot get admission into the hospices for want of room, and then the bureaux of the arrondissements in which they reside may award annual pensions of from 195 to 253 francs. In 1869 there were 1137 individuals so pensioned. The special resources of these *bureaux de bienfaisance* are uncertain, as they are entirely derived from individual charity, consisting of the products of legacies that have been bequeathed, and of collections made from house to house every year by the *commissionaires* and *sœurs*, after a pressing circular has been issued by the mayors. In 1869 the entire sum amounted to 906,926 fr., the sums received in the different arrondissements varying much, according to the wealth of their inhabitants. The Assistance Publique is obliged to come in aid of the poorer quarters, and last year contributed 500,000 fr. in money, and 684,123 in bread tickets. There is also a reserve fund of 450,000 fr. towards making up deficiencies of the bureaux. Altogether, the bureaux had at their disposal in 1869 in money and food 2,236,351 fr., and were enabled to pay annual sums of from 115 to 137 francs per household. The object is not, however, to encourage pensions, but rather to act in aid in pressing necessity and emergencies. As may be supposed, in spite of the most elaborate examination and watchfulness, the bureaux are the subjects of the vilest deceptions, the money furnished being often at once squandered in drink.

Each bureau has under its direction several *maisons de secours* scattered over its arrondissement, amounting at the present time to fifty-seven in number. They are distributed according to the requirements of the locality, and are under the immediate management and surveillance of the sisters of charity. They are remarkable for their exquisite cleanliness, and contain a large provision of linen articles, for sheets, and even shirts, are lent out and changed weekly—not being, indeed, always restored, and not unfrequently found pawned in the *monts de piété*. Ample supplies of warm clothing are also always ready. There is a small *salle*, where the Doctors see any patients who come with cards exhibiting their right to gratuitous advice, and who amount to from twenty to thirty daily at each *maison de secours*. "Curious pathological cases are very rare, accidents, wounds, rheumatism, and anæmia constituting the cases which are generally met with. A great number of baths are ordered, and in the bulk of the cases a very simple treatment is pursued. Old hands are often met with there, who, from long experience become knowing in Medical habitudes, and describe at length their digestive derangements, and the general debility which has "left them no more strength than a chicken." If the Doctor in attendance knows the parties he has to deal with, he turns a deaf ear to all these familiar tricks, the upshot of which is to get quinine wine ordered, which the patient declares with a confident air he is certain will suit his case. Ninety-five out of a hundred of such applicants are drunkards who have exhausted all other means of getting drink, and execrable as the quinine wine is to the palate, they much prefer it to water. So large is the demand for this article, that the *maisons de secours* alone last year disposed of 35,221 litres. The same tricks are played to get hold of spirit of camphor, many persons bruising themselves, or pretending to have pains in the joints, in hopes of having this burning fluid ordered, and which, when they get home, they dilute and drink in place of brandy. There were 1906 litres distributed in 1869. At these "consultations" the women are more numerous than men, and many bring with them wretched scrofulous little infants. Not only are medicines supplied gratuitously, but, in cases of need, spectacles, knee-caps, elastic stockings, crutches, and orthopædic apparatus, and fortunate is it when the articles are not at once sold for drink. When the prescriptions have been written, if they order any of the thirty-seven articles registered as dangerous drugs or offer difficulties in manipulation, they are sent to the *pharmacies* connected with the *maisons de secours* or to some apothecary, while the more simple ones are compounded by the sisters of charity, whose long practice enables them to dispense the simpler recipes easily. By the law of 1816 no parent is entitled to this gratuitous aid who has not had his children vaccinated (3 fr. being given him for every child vaccinated) and sent to a gratuitous school; but in some cases, as in that of the large Monthyon bequest, these conditions are not insisted on. All demands for assistance are immediately inquired into, an ambulatory service being attached to the Assistance Publique for the purpose of examining into the necessities and resources of the applicants at their own homes. This body, which is in a state of constant activity, consists of sixty-two visitors whom a long and painful experience has placed almost beyond deception. Paris is divided into zones, each of which is confided to one of the visitors, so that the innermost workings of its necessities become necessarily known to him. That the office is no sinecure may be judged of from the fact that during 1869 there were 185,400 visits made. M. Du Camp, accompanying some of these visitors on their rounds, found misery of the most frightful character, this for the most part being the result of debauchery, indolence, and depraved appetite, and most of the money given to relieve going at once to the pothouse. The visitors struggle on through their difficulties, being under the conviction, from long experience, nevertheless, that what they do leads to no serious result, seeing too clearly, behind the indigence they are commissioned to relieve, the vice that causes it. Still, there is actual misery before them, which is oftentimes so excessive that succour must be given, even when it is well known that no ultimate good will ensue. "Inquiring one day of a *chef de service*, who was thoroughly acquainted with the habits and resources of the indigent, how many of 100,000 persons to whom assistance was thus given were really deserving of it, raising his shoulders despondingly he replied not fifty!" M. Du Camp relates in his essay many interesting anecdotes illustrative of this point, but for these we have no space.

During the year 1869 the Assistance Publique had 61,080 demands made upon it for extraordinary assistance, all claims for which were made the subjects of inquiry at the houses of the applicants. Of the above number 17,855 were rejected, either as emanating from individuals who were notoriously leading immoral lives or from their having been made too soon after former grants. There were 43,225 persons who participated in the distribution of the fund devoted to this purpose which the central administration keeps in its own hands. After the second day the applicant may come to receive his portion, signing his name when able to do so. One set of these applicants may be regarded as permanent, numbering in 1869, 6982 persons—viz., 455 paralytics, 917 blind, 1345 octogenarians, and 4265 septuagenarians. The transitory set requiring special aid are the subjects of all the various accidents of life, and require to be very carefully observed as their indigence when not feigned is often greatly exaggerated. Constant practice enables the Assistance to distinguish the real necessities of the poor, and to avoid yielding to indiscriminate compassion. It has of late much increased the department of its agency which deals with the poor sick treated *à domicile*. In 1869 there were 72,706 entries for this purpose, 11,671 relating to accouchements and 61,035 to diseases of various kinds. The total of the days of sickness amounted to 842,907 or 14 days per patient. Of the 11,671 deliveries, 9283 took place in married women and 2388 in *fille-mères* or in abandoned women. The expenses for the entire service, in which the Doctors and medicines are provided, amounted to 818,897 francs.

A Munificent Donation.—A thousand pounds has been given anonymously to the London Infirmary for Diseases of the Legs, etc., in Red Lion-square. This will enable the committee to open a ward for in-patients, which for want of funds has of late been closed.

REVIEWS.

Forms of Animal Life, being Outlines of Zoological Classification based upon Anatomical Investigation. By George Rolleston, D.M., F.R.S., Linacre Professor of Anatomy and Physiology in the University of Oxford. Pp. clxviii. and 268. 1870. Oxford.

Grundzüge der Vergleichenden Anatomie. Von Carl Gegenbaur, Professor der Anatomie zu Jena. Zweite umgearbeitete Auflage. 1870. Pp. xii. and 892. Leipzig: Engelmann. London: Williams and Norgate.

Elements of Comparative Anatomy. By C. Gegenbaur. Second Edition, thoroughly Revised.

A Manual of Zoology for the Use of Students. By Henry A. Nicholson, M.D., D.Sc., F.R.S.E., etc., Lecturer on Natural History in the Extra-Academical School of Edinburgh. Vol. i. Invertebrate Animals. Pp. xiv. and 322. 1870. London: Hardwicke.

The comparative anatomists have been long kept waiting for Dr. Rolleston's promised volume, and now that it has at last appeared, we are sure that they will feel no reason to be disappointed with it. It differs essentially in plan and arrangement from all the works on comparative anatomy that had previously appeared, consisting of three parts—namely, (1) an introduction occupying more than a third of the whole volume, (2) a description of preparations from the classes mammalia, aves, reptilia, amphibia, pisces, gasteropoda, lamellibranchiata, tunicata, polyzoa, insecta, crustacea, annulata proper, platyelminthes, asteroidea, holothurioidea, anthozoa, hydrozoa, and spongiadæ, and (3) the description of twelve plates illustrating the dissection of some familiar mammal, bird, amphibian, etc. The introduction, from the nature of the subjects of which it treats, is the most continuous of the three parts, and affords the most plesant reading. After taking a general survey of the subjects treated of, the author describes the system of classification which he has adopted, and in which he arranges the whole animal creation into seven sub-kingdoms—the vertebrata, mollusca, arthropoda, vermes, echinodermata, cœlenterata, and protozoa. A clearly-arranged table at pp. xxviii.-xxix. shows the divisions, sub-divisions, and classes of these sub-kingdoms.

The characteristics of the different sub-kingdoms are discussed, much in the same excellent and lucid manner that Van der Hoeven adopted in his well-known "Handbook of Zoology," after which the divisions, subdivisions, and classes are duly considered. We will take the Vertebrata as an illustration of the method of treating the various sub-kingdoms. After describing the characteristics which distinguish this from the other sub-kingdoms, he proceeds to divide it into the Allantoidea and Anallantoidea, according as the fœtal envelope known as the Allantois is or is not developed. The first comprises the three classes, Mammalia, Aves, and Reptilia, the two latter classes being associated in the subdivision of Sauropsida; while the second comprises the two classes, Amphibia and Pisces, which collectively form the subdivision of Ichthyopsida. He concludes his observations on the Vertebrata generally with the observation that none of them "are social, nor are any fixed to one spot. The power of repairing injuries and mutilations is, with possibly a few exceptions, confined to the cold-blooded Amphibia and Reptilia. As in the sub-kingdom Mollusca, so in that of Vertebrata, there are very few animals of parasitic habits. All parasitic vertebrata belong to the class Pisces, and amongst these we may mention the Myxinoids, which are not only ecto-parasitic, but penetrate even into the abdominal cavity of other fishes, such as the sturgeon. A Siluroid fish has been found to inhabit the branchial cavity of another fish (*Platystomus*) of the same family; and the invertebrate *Asterias discoidea* is infested by *Oxybeles lumbricoides*, and certain Holothurians by a *Fierasfer*. These latter cases, however, are considered by Van Beneden to be instances of 'commensalism' rather than of parasitism strictly so-called."—Page xlii.

We have quoted this paragraph on parasitism partly on account of the interesting nature of the subject, partly to show how completely Dr. Rolleston has "made up his books to Saturday night," and partly (and, we may add, chiefly) to direct the attention of our readers to Van Beneden's very remarkable memoir, which they can purchase for sixpence, in the number of the *Revue des Cours Scientifiques* for January 5, or can consult (in an English dress) in the April number of the *Student and Intellectual Observer*.

The characteristics of the class *Mammalia*, and of the three sub-classes (based on the reproductive system), Ornithodelphia, Didelphia, and Monodelphia, are then considered. From the section on the characteristics of the class *Aves* we extract the concluding paragraphs as illustrations of the author's pleasant and agreeable style:—

"The right ovary is usually atrophied, and when it is persistent, as in some *Accipitres*, its ova do not come to maturity. In the upper part of the oviduct the albumen, in the lower the calcareous shell, of the egg is formed. [Nothing is stated regarding the colouring of the shell.] Many young birds are, as also are the young of *Chelonia* and *Ophidia*, provided with a hard knob on their upper mandible for breaking their shell when ready for hatching. In some birds the food-yolk is large, and the young are ordinarily more or less entirely competent to provide for themselves when hatched. When the yolk is relatively small, the young are incompetent to locomotion when hatched, and require to be brooded upon whilst going through further stages of development. . . .

"Existing birds are divided into two orders—the *Ratitae*, in which the sternum has no crest and the wings are rudimentary; and the *Carinatae*, in which the sternum has a crest or keel, ossified from an independent median azygos centre, and which have powerful anterior limbs ordinarily organised for flight, though sometimes not, as in the penguins. The former order includes only the genera *Struthio*, *Dromaeus*, *Casuarius*, *Apteryx*, and is distinguished not only by many modifications curtailed [entailed?] by the stunting of their anterior limbs, but also by many morphological points of affinity to the cold-blooded Sauropsida. The *Ratitae* have the barbs of their feathers disconnected, have no inferior larynx, and no angle at the junction of coracoid and scapula. A more perfect diaphragm exists in them than in the *Carinatae*. The latter order comprises all other existing birds. The fossil *Archaeopteryx* appears to have differed from existing birds by possessing a series of caudal vertebræ, equalling the body in length, and in having well-developed non-anchylosed metacarpals. A separate order—that of *Saururae*—has been established for the reception of this transitional form."—Pp. liv—lv.

From his remarks on the characteristics of the class *Reptilia* we extract the following sentence, from its bearing on a popular subject of dispute:—"The ova often undergo development whilst in the oviducal canals, but the young are not set free from the fœtal envelopes before extrusion from the maternal organism. For liberating themselves from these envelopes the young of the really ovo-viviparous viper, as also of many other reptiles, are provided with a temporary premaxillary tooth." P. lxi.

The following paragraph from his remarks on the class *Amphibia* affords one of the many evidences we might adduce that the author has availed himself of the latest zoological investigations:—"The Alpine Triton, one of the caducibranchiate amphibia, has been observed to attain sexual maturity, as indicated by the maturation of ova and spermatozoa, at a time when the branchiæ are still in functional activity, and when the characters of the bones of the roof of the mouth, and the presence of a continuous non-constricted cylindrical *chorda dorsalis*, showed the animal to be really in a larval state. The Axolotl (*Siredon pisciformis*) has long been known to be competent to sexual functions, whilst organs, regarded as provisional in other amphibia, were still persistent; and it has consequently been classed with the *Perennibranchiata* until recently, when it was discovered that its gills are really deciduous, though at varying periods in the life of the animal. Similar instances of larval Ichthyoids maturing sexual products are furnished to us by the immature Lamprey and by the young male Salmon known as the parr." P. lxvii.

If our limited space had permitted, there are several important paragraphs referring to recent investigations which we should have liked to quote for the elaborate section on the characteristics of the class *Pisces*. In his remarks on the breathing apparatus he observes that "accessory aërating organs which enable the fishes possessing them to support respiration when out of water, are developed in several genera of *Teleostei* (*Anabas*, *Saccobranchus*, *Amphipnous*) in relation with the interior of their branchial cavity." We quote this sentence with the view of directing the attention of our readers to a very remarkable paper on this subject by Dr. Francis Day, entitled "Observations on some of the Freshwater Fishes of India," and published in the *Proceedings of the Zoological Society* for 1868.

In illustration of a previous quotation regarding the amphibia, we may observe that "the embryos of the *Petromyzontidæ* (the lampreys) go through a metamorphosis, being blind and edentulous when set free from the egg. These larvæ were formerly supposed to be a distinct species, and were known

under the name of *Ammocœtes branchialis*. Like the larvæ of some other fish, and of some amphibia, they may attain sexual maturity whilst still in one of the stages preparatory to the perfect adult condition. The evolution of the sexual organs appears, however, to exhaust the powers of such larvæ as attain to it, and to be incompatible with the completion of the entire curriculum of metamorphosis." P. lxxxiv.

The characteristics of the other sub-kingdoms, and of their divisions and classes, are worked out with the same labour and skill that are shown in the treatment of the *Vertebrata*. We had marked for quotation the observations on "Agamogenesis in Insects," in p. cxii., and those on "the means of deciding whether a unicellular organism should be referred to the animal or vegetable kingdom," in pp. clxii-clxiii., but we must content ourselves with a very brief extract bearing on the latter subject. "There are organisms which at one period of their existence exhibit an aggregate of phenomena such as to justify us in speaking of them as animals, whilst at another they appear as distinctly vegetable. A monad may at one period be possessed not only of a nucleus and contractile vacuole, but of a cilium, by the aid of which it swims about; at another it may have lost its cilium, and effect locomotion by the protrusion of pseudopodia, like an Amœba; whilst in a third it may surround itself with an envelope of cellulose. If it should prove to be true that organisms as high in the scale as *Amœbina* and *Actophryna* can have their development traced back to a specialization of protoplasm within vegetable cells, it would appear to be necessary to adopt a phrascology which should speak of such creatures as being at one time plants and at another animals."

The second and third parts do not readily admit of analysis, or even of brief description, and we will merely remark that they abound in useful bibliographical references, and that the beautifully executed plates afford evidence of the masterly dissections which they represent.

Every Medical Practitioner, and every lover of natural history, who (to use a phrase which we often see included in the list of qualifications of candidates for election at a certain distinguished Society) is "attached to science and anxious to promote its progress" should at once add Professor Rolleston's "Forms of Animal Life" to his library, and if he can read German we do not think he will once find reason to regret including Gegenbaur's "Outlines of Comparative Anatomy" in his bookseller's order. Of the latter work we can only say that we have dipped into it to see his views on various disputed points, and that we have never been disappointed in the results of our soundings into the profundity of his 900 pages. The new edition is completely rewritten, is much enlarged, and contains more than 300 illustrations. We see that a French translation, executed under the editorial care of Carl Vogt, is announced as shortly to be published, and as it may contain important additions we shall wait for its appearance before describing the contents and mode of arrangement of this valuable work. We may add that it will be a disgrace to British scientific literature if an English translation, executed by a competent editor, is not shortly produced. As a stimulus to the execution of the task let us remember how the late lamented Dr. Baly, Physician to the Queen, obtained his earliest reputation.

Of Dr. Nicholson's volume we need say but little; that little must, however, be commendatory. The author lays no claim to originality, but seems as well acquainted as Dr. Rolleston with the latest discoveries in zoology and comparative anatomy. His principal fault lies in the attempt to compress too much matter into too small a compass. In p. 134 the reader will find a description and figure (after Wyville Thomson) of the remarkable crinoid, *Rhizocrinus lofotensis* that has lately excited so much interest in the scientific world. In his chapter on the *Cephalopoda* he gives as intelligible an account of the Hetocolytus as we have ever met with.

"The sexes (he observes) in all the *Cephalopoda* are in different individuals, and the reproductive process in the Dibranchiate section of the class (Cuttle-fishes) is attended with some very singular phenomena. In this order the ducts of the generative organs open into the pallial chamber, and each individual, besides the essential organ of generation (testis or ovary), generally possesses an accessory gland; that of the female secreting a viscid material which unites the eggs together, whilst that of the male coats the spermatozoa and aggregates them into peculiar worm-like filaments, termed 'spermatophores' or 'the moving filaments of Needham.' The spermatophore is filled with spermatozoa, and possesses the power of expanding, when moistened, rupturing, and expelling the contained spermatozoa with considerable force. During the congress of the sexes, the male transfers the spermatophores to the pallial chamber of the female, true intromission not being possible. Further, in all the male Cuttle-fishes one of the arms is specially modified to subserve reproduction, being in many cases so altered as to become useless as a locomotive organ. The arm so affected in the more striking forms, is said to be 'hectacotylised,' and—like the metamorphosed palpi of the male spiders—it serves to convey the seminal fluid to the female. The mode in which this is effected varies in different species." After showing how in the *Octopus* (the Poulpe) and in *Tremoctopus* the third right arm is hectocotylised, the author proceeds to observe that "in the *Argonaut* the male is not more than an inch in length, is devoid of a shell, and has its third left arm hectocotylised. This arm is developed in a cyst, which is ruptured by the movements of the 'hectocotylus,' which then appears as a small worm-like body with a filiform appendage in front, with two rows of alternating suckers, and a dorsal sac with numerous 'chromatophores' (or little sacs containing pigment-granules occurring in the integument). The duct of the testis probably opens into the base of the hectocotylus, which is ultimately detached, and is deposited by the male within the pallial chamber of the female. When it was first discovered in this position, it was described as a parasitic worm under the name of 'hectocotylus;' subsequently it was described as the entire male, and it is only recently that its true nature has been fully ascertained." Pp. 272—4.

We quoted this passage as affording a good illustration of Dr. Nicholson's style, and with no intention of criticising it. We must, however, observe that in the last few lines he falls into a slight error. The structure of which we are treating was described in 1828 by Della Chiajé as a parasite, to which he gave the name of *Trichocephalus acetabularis*, and it was not till the following year that Cuvier examined another specimen, which he also regarded as a parasitic worm, and to which he gave the name of Hectocotylus.

This manual contains eighty-seven well-executed diagrams, all, or almost all, of which we recognise as old acquaintances, and is likely to be a useful guide to the large class of teachers of natural history who are distributed throughout the country. For independent students we fear it is too condensed, as we think that every one capable of forming an opinion on such a subject must admit on learning that the following extensive group of materials is discussed in less than thirty-eight small pages:—Definition of Biology and Zoology; Differences between Organised and Unorganised Bodies; Nature of Life; Vital Force; Differences between Animals and Plants; Morphology and Physiology; Differences between Different Animals; Specialisation of Function; Morphological Type; Von Baer's Law of Development; Homology, Analogy, and Homomorphism; Correlation of Growth; Classification; Definition of Species; Impossibility of a Linear Classification; Reproduction; Sexual Reproduction; Non-sexual Reproduction; Gemmation and Fission; Reproduction by Internal Gemmation; Alternation of Generations; Parthenogenesis; Development, Transformation, and Metamorphosis; Spontaneous Generation; Origin of Species; Distribution, Geographical and Geological!

NEW BOOKS, WITH SHORT CRITIQUES.

An Elementary Course of Botany, Structural, Physiological, and Systematic. By Professor Arthur Henfrey, F.R.S., L.S., etc. 2nd edition. Revised and in part rewritten. By Maxwell T. Masters, M.D., F.R.S., etc., late Lecturer on Botany at St. George's Hospital. London: Van Voorst. Pp. 708.

*** We are glad to see a new edition of this admirable text-book—perhaps it is the best for the Medical student's use—and to have it revised by such an authority as Dr. Masters. The part in which most alteration is manifest is in that which relates to systematic botany, for it is in that department most advance has been made. It must also be confessed that Professor Henfrey's views on this matter have not been adopted by many botanists, and the old grouping is now giving place to that advocated by Renshaw and Hooker. In the department of physiological botany the work was curiously complete, and here but little alteration was necessary, for at the time the book was written it was far in advance of any thing of the kind. We should not have been sorry however to have seen a little more use made of Hofmeister's valuable encyclopædia as we might call it, for we always consider this to be the department most useful to the Medical student, introducing him to those forms of life which are simplest and consequently most easily understood.

The Parish Leech. A Medical Metrical Medley. By a Parish Doctor. Nicholls, Great James-street.

*** If we cannot award to the writer of this very able and eloquent exposition of the evils which afflict the hard-worked parish doctors of this kingdom, the praise of being a great poet, he is at all events a truthful and graphic artist. He paints in colours and with a vigour worthy of "nature's sternest painter, but the best," the career of the parish leech. From the deep feeling with which this career is sketched, it is evident that it depicts that of the writer himself. The sketches of the boy just issuing from school to "study physic's lore," the Medical pupil, quacks and quackery, and the parish doctor, are admirably drawn. The notes and references appended to the poem display an amount of knowledge of the Profession in all its branches, and a course of reading, classical and otherwise, that is somewhat marvellous. Every Medical Practitioner, whether he be "parish doctor" or otherwise, should invest half-a-crown in this little work.

Handy Book of Cottage Hospitals. Illustrated with Plates and Woodcuts. By Horace Swete, M.D.

*** This is a very useful little manual, and, judging from the number of questions which are put to ourselves respecting village Hospitals, it will be extensively circulated.

Biology versus Theology; or Life on the Basis of Hylozoism. By Julian.

*** Thoughts and speculations on very abstruse subjects, but written in a style at once attractive and clear.

FOREIGN CORRESPONDENCE.

THE WAR.

(*From our Special Correspondent.*)

Paris, August 23.

I am still here, and up to the present time without much chance of escape. Some little hope, however, begins to dawn upon me that, under certain conditions, and in the interest of science, I may soon get permission to go forward to scenes more Professionally, though not more politically, important. All that I can obtain just now is an offer of attachment to a particular ambulance, without the liberty of moving from one to another, or to visit the military field Hospitals. This is hardly what I want, as the sphere of observation would be very limited, and my time, perhaps, fully occupied. I shall make a further effort to get a more general pass from the Minister of War, but that failing—and it is only my being an Englishman that gives me the slightest chance of success—I must be content with the experience of an ambulance, and keep on the look out for better opportunities. It would be easy for me now to fill up my time by making general Hospital reports. This, however, is neither your object nor mine; and I might furnish you too with a variety of little details and incidents, curious and readable enough in themselves, but which would only bring you into competition with the daily journals. The fact is that hitherto nothing of any special Surgical importance has reached Paris. Sick and wounded men come every day in small numbers; but, as you can easily understand, we see only cases of comparatively slight wounds and men suffering under disease which admits of long travelling and no few changes *en route*. Then those who do arrive, and who can risk a further journey, find their way down to some of the provincial Hospitals on the other side of Paris. It seems that a great many at first fell ill from exposure to the heavy rains and from the fording of the numerous streams running everywhere in that part of the country which was the scene of the first actions. Of course, such chances gave rise to rheumatism and bronchitis, and very much worsened the state of the wounded. An officer of Zouaves, who is now in the military Hospital du Gros Caillon, on the other side of the river, told me that after receiving his wound at Weissenburg, he was, in the course of the retreat, obliged to pass more than once through water which rose above his waist. The consequences were for the time worse than the wound. Even then he had no settled refuge, but was moved from one ambulance to another, till at last he reached Epernay. Thence he managed to get to Paris, where he now remains. He was sitting on his horse at the top of a little rising ground, when a ball struck him below the left scapula, made its way obliquely upwards, and out at the back of the neck without fracturing the bone. From the injury and exposure, he of course had severe febrile symptoms, with the usual enormous swelling, and nothing could be done for him during the journey. But now a *coup de bistourie* has set free all matter; he is doing well, and can enjoy his journal and all the luxuries which his friends supply. About eighty patients remain in the Hospital at present, but many slighter cases and convalescents are sent away out of Paris every day. In the Hôtel-Dieu this morning there was not a single case, but I was sorry to hear that it is intended to occupy many of the beds. So much the worse for those who may be the unlucky occupants, and still worse, perhaps, for those civilians who have the misfortune to be already there. In the Charité not one. But everywhere there is the greatest diligence in fitting up ambulances. Private houses are being turned into them everywhere. You find tents and all things ready in the garden of the Tuileries. The French press, in addition to the one sent away in connexion with the Société de Secours aux Blessés, has undertaken to establish and maintain another, if not two more, on a large scale in the city, with M. Ricord at the head of the staff, and have made application for appropriation of the Elysée for the purpose; and as appendages of the Val de Grace, in which there are now a good many men, the Jesuits have opened their colleges. From the arrangement of the sleeping rooms of the young men, they are well adapted to the purpose. The establishment in the Rue des Postes gives them the opportunity of receiving twenty-five officers in separate apartments and of distributing some three hundred soldiers in the dormitories of the students. At Vaugirard they propose to take in as many as four hundred. I paid a visit this morning to the ambulance in the Rue des Postes, and found there seventy-three patients most carefully attended to by those belonging to the establishment, with Surgical and Medical officers from the Hôtel-Dieu in charge of the sick, and every comfort and luxury provided for convalescents. The ventilation was perfect, the cleanliness exquisite, the care of the sick most assiduous, and everything apparently working as smoothly as in an old-established Hospital. The number at Vauguirard is about 120. All the burden of the expense is taken up by the Society, in addition to which they have sent many of their members to accompany the army. Other religious bodies are imitating this example, and, according to all appearances, if the disposition of the people to continue the struggle to the utmost remains as it is at the present moment, and no interference from without checks their determination, there will be work enough for all.

The cases in the Rue des Postes were for the most part Medical, and I must confess that I was surprised to find some that were called wounded in Hospital at all. Many times I have seen English agricultural labourers doing their best at their usual work with wounds quite as severe and quite as far from being healed. The bullet-wounds exposed to view during the visit had nothing peculiar about them—the punctures very cleanly made, and all doing well. There does not seem to be a single Prussian in any of the Paris Hospitals, though I am not inclined to adopt the French explanation of the fact—that their ball is too fatal to give one of the enemy such a lucky chance. A large proportion of the sick really had only slight fever and chest symptoms, and required but the simplest treatment. A great many Turcos were amongst the rest, and the muster was from all parts and of all dates. No preparation is being made in the Salpêtrière; but, in addition to the usual complement of beds, the Physicians there have enough to do with their two wards full of small-pox. In the upper room I saw a day or two ago sixty-one women in all stages and conditions of the disease, and downstairs there were, I was told, another sixty-three; so that the epidemic is not yet over, though under present circumstances it is scarcely ever talked about, and I have seen no notice of it in the journals. The rate of mortality from the disease is not yet determined.

(*Letter from a Correspondent.*)

Berlin, August 16.

The system adopted by the Prussians in the treatment of their wounded is excellent, and the results up to the present time are very satisfactory. There are three classes of Hospitals in rear of the army, called respectively Feld, Kriegs, and Reserve-Lazarethen. The first are on the battle-field itself, and receive all cases. As soon as a wounded man is in a fit state for removal, he is sent off to the Hospitals of the second order, which are at a convenient distance in rear of the army. Hos-

pitals of the third class are in and around towns in the neighbourhood of the seat of war. Moreover, as soon as it can be done with safety, the wounded are drafted off by railway long distances into the interior—for example, beyond Berlin—and then dispersed as widely as possible among towns and villages. By these means accumulations of wounded men are avoided, and the field Hospitals are kept as clear as circumstances will allow, while at the same time opportunities are given for the many kindly hands which are everywhere ready to take the charge of their disabled countrymen off the hands of the Government. The enemy's wounded are treated in precisely the same way; and many a French soldier has made acquaintance with the remoter parts of Germany and their inhabitants in a very different way from that which he proposed to himself. So far as I have been able to hear, the French prisoners have in all cases expressed themselves as highly satisfied with the kindness shown them. Though pains are taken to keep the town Hospitals clear, there are still a large number of severely wounded Frenchmen and Turcos here, chiefly in a large Uhlan barrack, under the care of Professor Virchow. Trains containing wounded and prisoners have been an every day sight along the railways, and naturally excite great interest among the inhabitants.

The spirit with which "aid to the wounded" has been taken up here may be inferred from the fact that 250,000 thalers in money (nearly £40,000) were contributed in Berlin alone in the course of last week; while the convoys of necessaries of all kinds, which are constantly arriving from every part of North Germany, suffice to keep a great corn-market as full as it can be without inconvenience, though supplies are daily drawn from it for the seat of war. In this building, which has been given up to the Central Aid Society (Hülfs Verein), 130 ladies of Berlin may be seen at work any day, making and sorting articles of dress and other necessaries. The day before yesterday an order came from a city on the Rhine for a large quantity of supplies of various kinds. The order was received at 9 a.m., and by 4.30 p.m. 250 boxes containing the articles demanded were on their way to the station, where they filled twenty railway waggons. This will give some idea of the energy which has been called forth by a war which is yet scarcely three weeks old.

In order to be prepared for all contingencies, the Medical Department of the army is now constructing a wooden Hospital for 1500 patients outside the city, on the plan of the Lincoln Hospital at Washington. The buildings are of wood, and the separate wards, each of which is for about 30 patients, are echeloned in the form of a V, the administration buildings being enclosed between the two lines. This arrangement is several times repeated. A line of railway has been brought to the spot, so that patients can be transferred from Alsace to the doors of their wards without change of carriages.

There is so much to learn here that it is unfortunate for foreigners that the Government has ordered them to be excluded from the first two lines of Hospitals with the army. It may be worth while to consider whether our own War Minister and the whole of his department could not be sent out here for a few weeks with advantage, to learn some lessons that will not fall in their way at home.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 1.

Dr. GRAILY HEWITT, President, in the Chair.

THE following gentlemen were elected Fellows of the Society:—John Craigie, M.D., Reigate; Charles Huthwaite, L.R.C.P. Ed., Nottingham; and John Ashburton Thompson, L.R.C.P. Lond., and M.R.C.S., Caledonian-road.

The PRESIDENT said that the following resolution of sympathy with the family of the late Sir James Simpson would be proposed by Dr. Tyler Smith, and seconded by Mr. Spencer Wells:—

"That the Fellows of the Obstetrical Society of London desire to express their deep sympathy with the family of Sir James Simpson on the loss they have sustained, and to record their sense of the benefits he has conferred on Medicine and mankind, especially in the department to which this Society is devoted."

Dr. TYLER SMITH said: The Council has devolved upon me the honour and duty of proposing a resolution of sympathy with the family of our late honorary Fellow, Sir James Simpson, and expressing our sense of his pre-eminent merits. His loss has of late been eloquently deplored in all quarters as an illustrious citizen and a Physician of world-wide reputation. But it falls to us more particularly to lament his death as that of the man who has stood for many years the unchallenged head of the obstetric department of Medicine not only in this country, but throughout the civilised globe. We may be proud that it was in the line of thought belonging to obstetrics that his mind was formed and reached its noblest development. It is true that his exuberant intellect overflowed into Medicine and Surgery as well as into general science; still, it is as an obstetrician that he will be ultimately best known, and receive his greatest meed of fame. It was but in accordance with the fitness of things that the honoured Physician-Accoucheur, accustomed in his daily life through many years to witness the pangs of women in travail, should have had the largest share in the discoveries which to a great extent conquered human suffering, and gave him a motto, "*Dolore victo*," proud as any which the world can boast. Chloroform and the electric telegraph will ever stand forth as the highest triumphs of this age. We may well, therefore, be permitted to dwell affectionately and reverently on the life and memory of the man who has recently passed from amongst us in the zenith of his career. It is we who have, as it were, his ashes in our own especial keeping. It is in obstetric work, and obstetric literature, that his name and fame will be interwoven, and transmitted to future ages. We may proudly add him to the roll containing such names as Mauriceau, Chamberlen, William Hunter, and Naegelé, among which his will shine not the least illustrious. I might easily dwell longer on this eulogium, but in moving the resolution will only add that we do him mere justice, ourselves all the honour, by recording in our annals regret for his loss, and admiration for his genius.

Mr. SPENCER WELLS seconded the resolution. His acquaintance with Simpson dated from 1855, when, with great liberality, he invited him to operate in the Royal Infirmary of Edinburgh on a case of vesico-vaginal fistula. He (Mr. Wells) arrived in Edinburgh on New Year's-day, 1855. The night was spent with Simpson, Dr. Priestley, and others, in visiting the prison, whisky-shops, and low haunts of that city; the next day among Simpson's private and Hospital work. At night Simpson entered into a learned discussion at the Royal Society on some of the Bhuddist opinions and monuments of Asia, compared with the symbols of the ancient sculptured "standing stones" of Scotland. After the meeting Simpson drove him (Mr. Wells) to a country house, the scene of the ball in "Waverley," where patients were visited in the middle of the night, the house and grounds seen by moonlight, and Edinburgh only reached in the early morning. That day Mr. Wells did his operation in the Edinburgh Infirmary, and returned to London in the evening, Simpson having only been in bed two hours all this time—no uncommon example, it was said, of his marvellous activity and power of work. And now he is gone few will think that the Lord Provost of Edinburgh went too far when he called the discovery of chloroform a "great gift to mankind." Simpson never claimed to be the discoverer of anæsthesia; but he did claim, and claimed justly, the first application of sulphuric ether as an anæsthetic in midwifery, and the discovery of the power of chloroform, which discovery extended rapidly and greatly the practice of anæsthesia. Fellows of the Obstetrical Society accustomed to watch suffering women during the most trying period of their existence, are well able to appreciate the value of his discovery, and the energy and ability with which he ascertained the effects of chloroform in all stages of parturition, and his convincing answers to the so-called religious objection, as well as the tact and wit with which he overcame those who thought the new practice unnatural. "How did you come from Belfast?" said he to a lady. "By steamer to Glasgow." "That was unnatural, madam; *why did you not swim?*" By Simpson's handwork anæsthesia in midwifery became an established practice. He had well earned his crest-motto—"*Dolore victo.*" In his own last answer to Bigelow, this is the substance of his claim, and his last words should live in our memory. "I am a sad invalid just now, and quite unable to write with the force and brevity required. With many of our Profession in America I have the honour of being personally acquainted, and regard their friendship so very highly that I shall not regret the attempt—my last, perhaps—at Professional writing as altogether useless on my part if it tend to fix my memory duly in their love and esteem."

The motion was then carried unanimously.

Dr. JUNKER exhibited two instruments in vulcanite, one of

which was for intra-uterine injections, and was modelled on an instrument of Mr. Durham's for injecting the urethra; the other was for applying caustic powders to the cervix uteri.

Dr. Playfair said that Dr. Junker's instrument for applying powders to the cervix reminded him of one which he had seen used by the late Sir James Simpson, who, at one time, had employed a considerable number of substances in powder as applications to the uterus. With regard to the syringe it was open to the same objection as all means of applying intra-uterine injections—viz., that they are apt to bring on very severe symptoms from retention of fluid in the cavity of the uterus, and subsequent attempts at expulsion. He (Dr. Playfair) did not believe that any mechanical contrivance would prevent this except artificial dilatation of the cervix, and that was too severe an operation to be needlessly undertaken. He was strongly in favour of intra-uterine treatment in suitable cases, and believed that old-standing cases of uterine leucorrhœa could not be cured without it, but he thought much the best way of applying it was by means of flexible probes round which a thin film of cotton wool has been wrapped, saturated in the alterative application, far the best being a strong solution of carbolic acid, according to the plan he had recommended in a paper read before the British Association at Leeds.

Dr. Murray said that he preferred Dr. Junker's apparatus to the method advocated by Dr. Playfair, as it seemed to him that the fluid in which the cotton was steeped would be rubbed off in the cervix, and not reach the interior of the uterine cavity at all.

Mr. Spencer Wells said that Dr. Junker's method of cleaning the uterine cavity, or the canal of the cervix, from albuminous fluid added greatly to the efficacy of any applications made to the mucous membrane. If nitrate of silver were used, a compound of chloride of silver and albumen resulted, which was of little or no use. In using solid nitrate of silver, the best plan was to place some of the powdered salt on an aluminium probe, dipped in oil to make the powder adhere.

Dr. Potter showed a specimen of an Ovarian Tumour, removed after death from a patient 83 years of age, which was apparently a specimen of a dermoid cyst.

Dr. Horniblow, of Leamington, read his report of "A Case of Complicated Labour." This was supposed at first to have been a case of placenta prævia, attended by hæmorrhage. After delivery the soft presenting body which had been taken for the placenta was found to be the liver of the child, which was quite exposed, and of unusual size.

Dr. Wynn Williams read a paper on "Cases of Cancer of the Womb, successfully treated by bromine." The author gave full details of seven cases in which the method of treatment advocated by him had been employed, and in which the results had been extremely favourable. He concluded by saying that he considered cancer of the neck of the womb, when discovered sufficiently early, to be amenable to treatment. Superficial growths, such as epithelioma, should be treated by the application of a strong solution of bromine (bromine ♏ xij., spir. vin. rect. ʒj.) by means of cotton wool and caoutchouc cup. Should any stump remain this should always be injected. The more solid growths should be injected. The best means for injecting is with a trocar and canula, with accurately fitting syringe, such as one handed round. The syringe made with platinum was also shown. These were manufactured by Mr. Pratt, of Oxford-street. In all cases a weak solution of bromine (bromine ♏ xij., spir. vin. rect. ʒij., aquæ ʒxvj.) should be used as a vaginal injection during the treatment. The effects of a strong solution of bromine on a kid glove was also shown, which was reduced to a complete jelly.

Dr. Playfair said that the obvious criticism on the cases brought forward by Dr. Williams was that it seemed very questionable whether the diagnosis of cancer could be relied on. Dr. Williams said that his treatment was not applicable in medullary carcinoma after the uterus was fixed. Now, as far as his (Dr. Playfair's) experience went, it was the rarest thing in the world to be able to say positively that a case was malignant before fixation of the uterus had occurred. Before this the diagnosis must always be doubtful, and so, of course, must the result of any treatment based upon it.

Dr. Palfrey rose for the confirming the doubts as to the accuracy of the diagnosis expressed by the last speaker. Dr. Williams had stated that at 30, 23, and 28 years of age respectively patients had consulted him for cancerous disease of the uterus. He (Dr. Palfrey) thought the evidence afforded of this was of little value. Dr. Williams spoke of hardness, peculiar colour, pain, discharge, etc., but he also stated that in each instance the uterus was freely movable. Now, he considered fixedness of the uterus to be one of the most reliable signs of malignant deposit, and he would be very sorry indeed to express a positive opinion that any young woman was the subject of so grave a disease on the evidence the author had adduced. He (Dr. Palfrey) also doubted if bromine excited any action peculiar to itself on the diseased mass. He had formerly made numerous experiments by injecting various substances into the cervix in cases of malignant disease, such as acetic acid, tincture of iodine, and solution of carbonate of soda, etc., with the effect of producing an amount of destructive inflammation so profound that the portion injected died, a slough formed, and after this separated the patient was invariably immediately benefited for a time; and this he believed to be the proper explanation of the success Dr. Williams had met with in the injection of the bromine solution.

Dr. Cleveland, though practically unacquainted with the merits of bromine injections, wished to call the attention of the Society to cases of supposed Cancer of the Uterus published by the late Dr. Ashwell, of Guy's, in which the topical application of iodine, by tincture and strong inunction, was thought by him to have proved curative in many instances. He said it was now generally considered that Dr. Ashwell's cases were rather those of chronic congestion, hypertrophy, and induration, than of a truly malignant character.

Dr. Murray said that one of the cases of epithelioma reported by Dr. Williams had been under his care, and he felt bound to say that up to this time there had been no symptoms of the recurrence of the disease.

Dr. Rogers had, at the suggestion of Dr. Williams, used bromine in six or seven cases of uterine cancer, in all of which, however, the disease was somewhat advanced. He had found the fœtid discharges diminished, and the pain and hæmorrhage were considerably lessened. He had injected the bromine into a cancerous breast with temporary benefit, but the patient had since died. In his hands, therefore, no cure had been effected, and the improvement had been only temporary.

Dr. Williams said, in answer to Dr. Playfair and others, that surely there must be a time in the early stages of the disease when it is confined solely to the neck of the uterus. No doubt there is great difficulty in diagnosing cases of malignant disease, especially the more solid forms, from non-malignant growths, but after all other remedial measures have failed, he considered it quite justifiable to treat them as malignant. The great superiority of this mode of treatment over the écraseur and the knife, you could, by repeated injections, make much more sure of the removal of the diseased parts. As to the appearance of the parts left after this treatment it is such as would be seen after the removal of the slough or core from any other part of the body.

OBITUARY.

RICHARD WELBANK, ESQ.

Mr. Welbank was a man who made his mark in the progress of Surgical science, and whose name will be handed down in classical treatises on Surgery as the advocate of a successful method of treating an intractable disease. So long ago as the year 1817, Mr. Welbank communicated a paper to the Medico-Chirurgical Society on the treatment of sloughing phagedæna by concentrated nitric acid; and this was the beginning of that method of treatment of sloughing sores by escharotics which has now become universal. For many years he carried on a successful practice in Chancery-lane, especially amongst lawyers, who, be it said, are excellent patients. He mixed but little with the Profession, and was never seen at a Medical Society; and the notice of his death reminds us that he had long retired from public life.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 18, 1870:—

Hosegood, Samuel, Williton, Somerset.
Joseph, Joshua Raphael, Merrick-square, Borough.

The following gentleman also on the same day passed his First Professional Examination:—

Jackson, Thomas William, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

De Liefde, J., F.R.C.S. Eng. (Ex.)—House-Physician at Guy's Hospital for October to December, 1870, *vice* C. Higgens, resigned.

Vincent, Osman, M.R.C.S.—Surgeon to the Great Northern Hospital, *vice* Henry Arnott, Esq., resigned.

MILITARY APPOINTMENTS.

War Office.—The undermentioned Officers, with seniority of August 19, 1870, to be Staff Surgeons:—Henry Slade, William Bennett Dalby, M.D., and Ahmuty Irwin. To be Surgeons: James Leech Witney, Garland William Laugdon Harrison, George Bewther Beale, M.D., Charles Strickland William Shute Fisher, Samuel Grosse, James Trimble, Robert Longstaff Bett, Bradley Gregory, Thomas L. Bickford, Alexander Turnbull, M.D., and John Mitchell Hunter.

BIRTHS.

Churchill.—On July 20, at Cape Town, Cape of Good Hope, the wife of A. F. Churchill, M.D., Staff Assistant-Surgeon, of a son.

Crawford.—On August 20, the wife of T. Crawford, Deputy Inspector-General of Hospitals, of a daughter.

Glover.—On August 20, at 33, Compton-terrace, N., the wife of James Grey Glover, M.D., of a daughter.

Iliff.—On August 20, at 37, Kennington-park-road, S.E., the wife of William Tiffin Iliff, M.D., of a daughter.

Kavanagh.—On August 19, at Jerne House, Wickham-road, the wife of P. Kavanagh, M.D., of a son.

Price.—On August 20, at Margate, the wife of William Price, M.D., of a daughter.

Rickards.—On August 19, at 8, Cavendish-place, the wife of Walter Rickards, M.D., of a daughter.

Smith.—On August 22, at 4, Sydenham-place, Sydenham, S.E., the wife of Dr. Robert Smith, Assistant Colonial Surgeon, Freetown, Sierra Leone, of a son.

MARRIAGES.

Drury—Ferry.—On August 24, at Bishopwearmouth Parish Church, by the Rev. John Woodhouse, Charles D. Hill Drury, M.D., of Pullam St. Mary, near Harlestone, Norfolk, to Fanny, second daughter of Robt. Ferry, of Sunderland.

Fyfe—Richmond.—On August 17, at Moneydie, Perthshire, Andrew Fyfe, M.D., 42, Montpelier-square, London, to Louisa Stewart, daughter of the late Thomas Richmond, Esq., of Balbaldie, Perthshire.

Hume—Carey.—On August 18, at the church of St. John the Evangelist, Island of Guernsey, Francis Glynne Hume, to Edith, daughter of R. Gledstanes Carey, M.D., of Hauteville.

Lloyd—Vincent.—On August 18, at Castleblaney Church, William Harris Lloyd, M.D., R.N., eldest son of William Lloyd, Esq., Newtown, Waterford, to Phœbe Jane, daughter of the late Lieutenant-General William Vincent, Bengal Army.

McFall—Clarke.—On August 23, at Christ's Church, Bridlington Quay, by the Rev. James Thompson, M.A., David Chambers McFall, M.R.C.S., 34th Regiment, to Frances Elizabeth, second daughter of the late Commander E. J. Bellenden Clarke, Royal Navy.

Noble—Wetherell.—On August 23, at Matlock Bath, Samuel Clarke Noble, Surgeon, Kendal, to Mary Ellen, daughter of Robert Wetherell, Esq.

Ogilvy—Waters.—On August 18, at the Parish Church, Dawlish, John Ogilvy, M.D., Staff Surgeon, Royal Army, to Harriet Madleaine, second daughter of G. J. Waters, Esq., F.R.A.S., of the East India Covenanted Civil Service.

Robertson—Gilchrist.—On August 23, at Holy Trinity Church, Lee, Charles Robertson, M.D., Surgeon Indian Army, to Sophia Frances, widow of the late Lieut. T. W. Gilchrist, M.S.C., and youngest daughter of the late C. A. Johnston, Esq., of Madras.

DEATHS.

Fox, Charles Joseph, M.D., of Fairholme, Torquay, son of the late Dr. Edward Long Fox, of Brislington House, at the Rev. G. L. Cartwright's, Brislington, on June 28, in the 65th year of his age.

Hutchinson, James, M.D., late of the Hon. E. I. Company's Service, at his residence, Bell Ombre, Cape of Good Hope, on July 29, aged 70.

Welbank, Richard, M.R.C.S., formerly of Chancery-lane, on August 20, in his 74th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in successive.

Brighton and Hove Dispensary.—Resident Medical Officer and Dispenser; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Committee of Management on or before September 5.

Chester County Asylum, Upton, near Chester.—Assistant Medical Officer; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Clerk, on or before September 1.

City Dispensary, 46, Watling-street.—Physician; must be duly qualified. Applications and testimonials to Mr. W. Tyler, Secretary, on or before September 10.

Clayton Hospital, Wakefield, General Dispensary.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Binks, on or before the 29th inst.

Derby General Infirmary.—Compounder of Medicines. Applications and testimonials to Mr. S. Whitaker, at the Infirmary, on or before August 27.

Gloucester County Asylum.—Senior Assistant Medical Officer; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Committee of Visitors on or before September 5.

Gloucester County Asylum.—Junior Medical Assistant; must be duly qualified and registered. Further particulars may be obtained of Mr. Toller, the Superintendent.

Hollingbourn Union.—Medical Officer for the Lenham District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. E. Hoar, Maidstone, on or before August 30. Election on September 15.

Hospital for Consumption and Diseases of the Chest, Brompton.—Resident Clinical Assistant. Applications and testimonials to Mr. P. Rose, Hon. Sec., on or before September 3. Attendance at the Hospital will be required on Monday, September 5.

Jersey General Dispensary.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

Male Lock Hospital.—House-Surgeon. Applications and testimonials to Mr. H. J. Porter, 91, Dean-street, Soho, on or before September 5.

Metropolitan Free Hospital, Devonshire-square, City.—Honorary Surgeon; must be F.R.C.S.E. Applications and testimonials to the Committee of Management on or before September 5.

North Riding Infirmary, Middlesborough-on-Tees, Yorkshire.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Gregory, on or before September 1. Election on October 6.

Parish of Unst, Shetland.—Medical Officer. Applications and testimonials to Thomas Edmondston, Esq., Unst, from whom further particulars may be obtained.

Queen's College, Birmingham.—Medical Tutor and Demonstrator of Anatomy. Applications, August 27.

St. George, Hanover-square, Dispensary, 59, Mount-street, Grosvenor-square.—Physician-Accoucheur; must be M.R.C.P.L. Applications and testimonials to Honorary Secretary, on or before August 30.

St. Mary's Hospital and Dispensary for Women and Children, Manchester.—Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Barber, 41, John Dalton-street, Manchester, on or before September 30.

Sussex County Asylum, Haywaard's Heath.—Assistant Medical Officer; must be unmarried and duly qualified. Applications and testimonials to Dr. Williams, Medical Superintendent, on or before September 3.

Westhampnett Union, Sussex.—Medical Officer wanted for the Manhood District; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. R. G. Raper, West-street, Chichester, on or before September 1. Election on the 5th.

York County Hospital.—House-Surgeon; must be duly qualified. Applications and testimonials to Mr. R. Holtby, 5, New-street, York, on or before August 27.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Llanrwst Union.—The Pentrefoelas District is vacant; area 55,849; population 5663; salary £50 per annum.

Sherborne Union.—Dr. Williams has resigned the North-West District; area 6066; population 1845; salary £62 10s.

APPOINTMENTS.

Bourn Union.—Samuel John Truman, L.R.C.P., M.R.C.S., L.S.A., to the Rippingale District.

Henley Union.—John Johnstone, L.F.P. and S. Glas., L.R.C.P. Edin., to the Caversham District.

Scarborough Union.—Robert Wyllie, L.R.C.P. Edin., L.F.P.S. Glas., F.S.A. Lond., to the Scalby District.

The Council of the Royal College of Surgeons have issued some new regulations for the Professional study of candidates for the diplomas of Fellowship and Membership, which will be applicable to candidates who commence their Professional studies on or after October 1. The regulations are evidently framed with the intention of insuring the practical instruction of students. They will be published *in extenso* in our Student's Number.

English Surgeons at the War.—Colonel Loyd Lindsay, in a letter to the *Times* with respect to the Surgeons attached to the "Aid to the Sick and Wounded Association," says:—"I should like to add some letters from our French correspondent, but fear to trespass too much on your space. I content myself with stating that we now know the position of all our Surgeons, and we are glad to find them doing good service. In France we have one Surgeon at Châlons, three at the camp near Châlons, two (shut up, we believe) at Metz, one at a Protestant Hospital between Châlons and Paris, and two at Paris."

Dublin Dispensary Medical Officers.—At the usual weekly meeting of the guardians of the South Dublin Union, held on the 18th inst., Alderman Bonsall in the chair, it was resolved, by a majority (including Mr. Purcell, Q.C., who spoke in favour of the measure, but did not vote) of two to one, to increase the salaries of the city and rural dispensary Medical officers and apothecaries in the union from £100 to £125 per annum each. The number of officers whose salaries are thus raised is twenty.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.—EXAMINATIONS 1869-70.—Senior Scholarship (£50) in Medicine, Surgery, and Midwifery, A. H. G. Doran; Senior Scholarship in Anatomy, Physiology, and Botany, (1) £50, G. W. Burn, (2) £25, M. Groves; Jeaffreson Exhibition (£20), tenable for two years, F. B. Brodribb; Junior Scholarships, (1) £50, C. Firth, (2) £30, T. H. Sawtell, (3) £20, R. W. Leftwich; Kirke's Gold Medal, A. E. Cumberbatch; Practical Anatomy (Senior), Foster Prize, W. Furner; Certificates, (2) W. Fairbank, (3) A. C. Horner, (4) H. Gibbs, (5) F. Scaife, (6) J. Strafford, (7) A. Godfrey, (8) J. D. Harris, (9) G. W. Burn, (10) C. F. Murrell, (11) A. L. Sobey, (12) H. E. Bridgeman; Practical Anatomy (Junior), Treasurer's Prize, J. F. Dixon, *S. Andrews, *H. A. Nicholls, *J. L. Whitsed (* equal), (5) T. H. Sawtell, (6) C. Firth, (7) W. T. Whitmore, (8) J. Adams, (9) R. W Leftwich.

OUTRAGE UPON A SURGEON.—An Irish labourer, named Martin Feeney, has been fined £3 and costs, or six weeks' imprisonment in default, at the Birmingham Police-court, for biting off the end of one of the thumbs of Mr. Cowley, a Medical gentleman, for causing the removal from a Hospital to her home of a woman with whom the prisoner lived, before she was, in the prisoner's opinion, sufficiently convalescent.

BELFAST BRANCH OF THE MEDICAL BENEVOLENT FUND OF IRELAND.—At the last meeting of this society, which was well attended, it was stated that all the grants that had been recommended to be given to the society's recipients of this branch were all freely made by the parent society. It was to be lamented that so large a number of the members of the Profession, both in town and country, lent a deaf ear to the earnest calls made upon them to give their countenance and support to a society whose objects are so purely beneficent and so deserving of being maintained. The subject was discussed at the meeting.

G. E. YARROW, M.D., Public Vaccinator of St. Luke's, has received the sum of £45 4s. from the Privy Council as an award for successful vaccination.

ON Wednesday, at Stanley, near Wakefield, a cottage Hospital was opened and presented to the parish by the subscribers. It is completely furnished for five beds, and although the district is neither large nor very populous, the building is quite free from debt, and £60 a year have been guaranteed for its support. At the opening, addresses were given by Dr. Crichton Browne and Mr. Lawson Tait explanatory of its objects.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN AUGUST, 1870.—The following are the returns of the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	15·97	0·069	0·075	0·001	13·0	2·8
West Middlesex .	16·87	0·049	0·110	0·000	13·9	3·0
Southwark & Vauxhall . . .	16·95	0·073	0·075	0·005	13·9	3·3
Chelsea . . .	16·90	0·091	0·091	0·001	13·8	3·0
Lambeth . . .	17·77	0·063	0·060	0·001	14·2	3·6
Other Companies.						
Kent . . .	27·19	0·001	0·125	0·000	19·8	5·7
New River . .	15·83	0·018	0·075	0·000	12·8	2·6
East London . .	15·89	0·054	0·110	0·000	12·9	3·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases.

H. LETHEBY, M.B.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

"Ozokerit."—Ask the opinion of your own Medical adviser.

Jacobus must pass the preliminary examination.

J. C.—The words are—"In the manner of an apprentice."

R. T.—The salary varies with the number of emigrants in the vessel. Full particulars may be obtained by application to the Commissioners of Emigration.

A Poor Patient.—No letter of recommendation is required. There is daily attendance.

Anxious should consult some respectable Surgeon; the disease is amenable to treatment, and is only rendered formidable by the patient becoming a victim of advertising quacks, who plunder the pocket and ruin the health.

Country Surgeon.—The A. B. C. bag noticed in a late number of the *Medical Times and Gazette* may be obtained of Jenner and Knewstub, St. James's-street, London.

Vaccine matter can be obtained on application, personally or by letter, to the National Vaccine Institution, Russell-place, Fitzroy-square.

Gallo-Britannus.—It is the fault of the French if they do not evoke their full share of English sympathy for their sick and wounded. Contributions may be sent to the French Society for the relief of the wounded soldiers, at the Palais de l'Industrie, Paris. It is understood that Messrs. Piesse and Lubin, of New Bond-street, also will receive and forward subscriptions, yet we think that a large committee of French residents in London ought to be formed, and that if they did they would receive quite as many contributions as their more active German brethren. Meanwhile, every contribution sent to the International Society at St. Martin's-place is not only divided impartially, but, considering the number of French prisoners whom the hazard of war has sent to Germany, even the contributions sent to Germany benefit an immense number of the French. We never were adulators of the Emperor Napoleon, but we cannot help feeling disgust at the way in which some persons who fawned on him in his prosperity, now turn to kick the sick lion. The most absurd stories are industriously circulated in disparagement of the Emperor's mental and physical condition. One is, that the Prince Imperial has been sent over to the care of Poole, the tailor; another, that a house in the Avenue-road has been got ready for the Emperor; the latest is, that an eminent Surgeon of St. George's Hospital had been sent for to Châlons to see the Emperor, and that he had declared publicly since his return that his Imperial patient had not a fortnight to live! Such stories are disgraceful to those who invent and circulate them. The Emperor's present state brings to our mind Dryden's lines as—

> "Darius, good and great,
> By too severe a fate,
> Fall'n, fall'n, fall'n, fall'n,
> Fall'n from his high estate.
> . . . . . .
> Deserted, at his utmost need,
> By those his former bounty fed!"

France has a great and glorious future before her; but it will be well if her recovery from the present abyss be marred by no political ingratitude or civil dissension.

A Patient.—We do not know whether the little paragraphs which stare us in the face in all the newspapers, headed "British Hospital for Diseases of the Skin," are paid for as advertisements. Whether paid for or not, they are illustrations of a system of puffing highly unprofessional and objectionable. This system of puffing is not resorted to by the larger Hospitals.

Studens (Doncaster), should make application to the Secretary of the College; but we believe it is not usual to furnish the information required by our correspondent. At all events, the application, if made, will, we are sure, meet with attention.

A Provincial Teacher.—The meaning of the circular is this—Lectures on Surgery, theoretical and practical, may be given by one and the same teacher, say the theoretical in the ensuing session, and the practical in the succeeding session. This, in fact, is recommended by the Council as being most convenient to the lecturer and pupils.

H. M., Liverpool.—Dr. Diamond, of Twickenham, published some years ago photographic physiognomic portraits, illustrating various forms of insanity.

Chopart, Manchester.—Mr. Hancock, of the Charing-cross Hospital, was the first to remove the os calcis. The operation of the other gentleman to whom you allude was not successful. The leg was subsequently amputated by, we believe, Mr. Bowman, at King's College Hospital.

A Student, Bath.—The object of registration would be defeated if you were allowed to register by deputy. The registration at the College will commence on Saturday, October 1, and terminate on Saturday, October 15.

Professor Halford.—The *Melbourne Argus* of June 18 has an able leading article on Professor Halford's just claims respecting his treatment of snake-bite. It refers to the mis-statements on this subject made by one of our contemporaries, and it is almost impossible to understand how those statements could have been made and persevered in so ungenerously and unjustly. Here is what Dr. Halford claims; no one can fairly deny the justice of these claims:—

"The credit claimed by Dr. Halford," says the *Argus*, "which cannot be justly withheld from him, is that he first proposed to fight a fierce and swift enemy by an equally fierce and prompt opponent; that instead of dallying with ammonia or other medicines on the surface, while the poison from the snake fang is coursing through the veins, he cuts his way into a blood-vessel, and sends the remedy to tackle the intruder within the seat of life. In fifty-one seconds after the poison has entered the blood it has been transmitted by the energetic action of the heart into every minute capillary of the system. The effect is to rob the blood of its life maintaining power, and thus to paralyse the muscles with which the capillaries are so intimately connected. By injecting ammonia into the veins the action of the heart is restored, the blood again performs its natural functions, and the paralysis is defeated. It would be impossible to administer liquor ammoniæ of such strength by any ordinary process, but it is

found that it may safely be injected into the blood when it could not, without destruction, be allowed to touch the tissues."

A Pupil.—The list was published in the *Medical Times and Gazette* last week; you can, of course, commence your Hospital studies in October next. We cannot recommend any particular Hospital. Consult our Students Number, which will be published on September 10.

Behind the Scenes.—We are fully acquainted with all the circumstances of the case and the cause of the *animus* which exists against certain members of the Council. The days when personal attacks and threats would be tolerated are gone by, never, we hope, to return. Differences of opinion will exist, and the freer the discussion the better; but we much condemn all attempts to stifle that discussion by holding over an opponent the threat of punishment when a chance of inflicting it may arise. Recent events have conclusively proved that the Council and the Fellows have arrived at a true estimation of the value of those attempts to stop freedom of speech. The "reign of terror" must not be allowed to continue. It rests with those who are the subjects of attack to stop it. Let them treat the anathemata, as they deserve to be treated, with silence and contempt.

ERRATUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the review of Dr. Bateman "On Aphasia" an error has crept in, which inverts the sense. On line 21 of p. 224, August 20, the word *and* should read *although*. Will you kindly note this.

August 21. I am, &c. THE REVIEWER.

COMMUNICATIONS have been received from—

Dr. HITCHMAN; Dr. HALDANE; STUDENS; Dr. YARROW; Dr. MUSPRATT; Mrs. BAINES; Dr. FAYRER; Mr. OSMAN VINCENT; Dr. EBEN. HUGHES; Mr. D. C. MCFALL; Dr. W. CARTER; Mr. S. C. NOBLE; Dr. DAY; Mr. H. AMOTT; Mr. T. SPENCER WELLS; Mr. J. CHATTO; Dr. D. CHARLES HILL DRURY; Dr. LETHEBY; Mr. J. H. SALTER; Dr. MOXON.

BOOKS RECEIVED—

Lawson Tait on the Treatment of Cleft Palate—Annual Report on the Health of the Parish of St. Marylebone, 1869—Monthly Report on the Health of the Parish of St. Marylebone, July—Dr. Michel on Hæmorrhagic Malarial Fever—Dr. Halford on the Treatment of Snake-bite in Victoria—Dr. Hammond (New York) on the Physiology and Pathology of the Cerebellum—Dr. Hammond (New York) on Spinal Irritation—Dr. Hammond (New York) on a Medico-legal Study of the Case of Daniel McFarland—Dr. Ransome on the Organic Matter of Human Breath in Health and Disease—Dr. Stratton on the Celtic Origin of a Great Part of the Greek and Latin Languages—American Journal of Insanity, July—Snuff-taking: its Utility in Preventing Bronchitis, Consumption, etc., by Dr. John C. Murray—New York Medical Journal, August—Dr. Clouston on Two Cases of Rheumatic Insanity—Report of the Committee appointed by the Medico-Psychological Association.

NEWSPAPERS RECEIVED—

Pharmaceutical Journal—Nature—Melbourne Argus—Medical Press and Circular—New York Medical Gazette.

APPOINTMENTS FOR THE WEEK.

August 27. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women 9½ a.m.; Royal London Ophthalmic, 11 a.m.

29. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

30. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

31. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

September 1. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

2. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 20, 1870.

BIRTHS.

Births of Boys, 1136; Girls, 976; Total, 2112.
Average of 10 corresponding weeks, 1860-69, 1892·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	737	661	1398
Average of the ten years 1860-69	697·1	667·5	1364·6
Average corrected to increased population	...	...	1501
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	1	32	...	2	1	3	...	28
North ...	618210	3	6	30	1	...	3	12	1	56
Central ...	383321	...	1	17	...	2	...	4	1	16
East	571158	5	3	10	...	5	...	3	3	50
South	773175	2	4	37	1	8	3	9	7	98
Total	2803989	10	15	126	2	17	7	31	12	248

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·860 in.
Mean temperature	60·9
Highest point of thermometer	79·9
Lowest point of thermometer	46·3
Mean dew-point temperature	50·5
General direction of wind	N.N.E.
Whole amount of rain in the week	0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 20, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Aug. 20.	Deaths Registered during the week ending Aug. 20.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2112	1398	79·9	46·3	60·9	16·06	0·00	0·00
Portsmouth ...	122084	12·8	81	40	80·6	46·0	63·5	17·50	0·06	0·15
Norwich	81087	10·9	47	61	73·5	49·0	58·8	14·89	1·04	2·64
Bristol	171382	36·6	118	102	79·7	45·9	58·9	14·94	0·01	0·03
Wolverhampton ...	72990	21·5	47	47	72·0	45·5	57·5	14·16	0·00	0·00
Birmingham ...	369601	47·2	243	172	74·7	44·4	58·1	14·50	0·00	0·00
Leicester	97427	30·4	79	65	...	...	...	...	...	...
Nottingham ...	88888	44·5	46	44	78·6	45·1	59·3	15·16	0·03	0·08
Liverpool	517567	101·3	365	406	72·1	48·7	58·0	14·44	0·15	0·38
Manchester ...	374993	83·6	257	230	...	...	...	...	...	...
Salford	121580	23·5	85	75	75·3	43·9	57·6	14·22	0·04	0·10
Bradford	143197	21·7	94	113	73·5	47·3	58·9	14·94	0·24	0·61
Leeds	259527	12·0	193	198	77·0	48·0	60·4	15·78	0·53	1·35
Sheffield	247378	10·8	209	145	74·7	47·0	58·5	14·72	0·08	0·20
Hull	130869	36·7	100	72	73·0	42·0	56·4	13·55	0·49	1·25
Sunderland ...	100979	30·5	87	46	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	87	88	67·0	48·0	55·0	12·78	0·18	0·45
Edinburgh	178970	40·4	114	85	76·7	45·0	58·8	14·89	0·40	1·02
Glasgow	468189	92·5	333	252	77·7	43·3	58·7	14·83	0·12	0·30
Dublin (City, etc.*)	321540	33·0	180	128	79·1	39·5	58·6	14·78	0·00	0·00
Total of 20 Towns in United Kingd'm	7216325	33·8	4877	3767	80·6	39·5	58·7	14·83	0·20	0·51
Paris—Week ending August 20... ...	1889842	242	...	1165	...	...	...	...	...	...
Vienna—Week ending August 13 ...	622087	167	...	350	...	...	68·0	20·00	...	...
Berlin—Week ending August 18 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·860 in. The highest barometrical reading was 30·08 in. at the beginning of the week, and the lowest was 29·62 in. on Thursday evening.

The general direction of the wind was N.N.E.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

PURE CHOCOLATE.

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"We have examined a variety of the chocolates of the Compagnie Coloniale, and found them to consist solely of cocoa of superior quality and sugar."—Lancet.

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ORIGINAL LECTURES.

CLINICAL LECTURE ON CASES OF DELIRIUM TREMENS.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

Case 1.—St. B., aged 45, porter, admitted November 1, 1869. Ill two months, suffering with loss of appetite, trembling, and weakness, so that he can hold nothing in his hands. Gets very shaky if he walks about, unless he goes very slowly. Hands are cramped at times. Has retching in mornings, and some epistaxis. No pain except at epigastrium, where he has some tenderness. Mouth clammy. The heart sounds were free from bruit, the dulness area rather extended, the impulse was felt in the epigastrium, and in the fifth space at the vertical nipple line. The lungs were fairly healthy. Pulse 80, of fair strength and volume. Says that he has taken a great deal of gin and water, but not during the last four months. Ordered effervescing ammoniated saline, with carbonate of ammonia 4 gr. in excess ter die. Blister to epigastrium. Spare diet, beef-tea.

2nd.—No sleep in night; became excited this morning; declared he would not stay in the Hospital; that he should go mad if he did, he had taken such a dislike to the place. Pot. Bromid. gr. xxx. + aq. ʒ j. 2 dis horis. Takes beef-tea well; chop, milk 1 pint.

3rd.—Pulse 63, regular. Says he feels no trembling now. Took his dinner well. Slept well in night after three doses of bromide. Repeat mixture 4 tis horis.

4th.—Is a good deal excited to-day; wants to go to his work, declaring that he is quite well. Slept from 2 to 6 a.m. Takes his food very well. Fancies his bowels are much relaxed. Urine appears natural, is not albuminous. Repeat mixture 2 dis horis.

5th.—Pulse 78, of fair force, is quieter. Temperature 98·9°. Ale 1 pint.

6th.—Slept well, is quiet, tells me he enjoys the ale ordered yesterday.

8th.—Doing well; employed in the ward. Ordinary diet. Repeat mixture 3 tis horis.

13th.—Quite well; makes himself very useful in the ward. He admitted at leaving the cause of his disorder, said it was all his own fault. He was so obstreperous and excited at first that he had a male attendant for several days.

Case 2.—G. R., aged 30, butler, admitted May 12, 1870. Was taken ill this morning with hæmatemesis. He brought up half a pint of blood, and fainted, becoming quite unconscious. Has brought up no more blood since. Is not subject to indigestion; has no pain at all after food. Never vomited blood before. Pulse 90; soft, open. Temperature, 98°·6. Heart's sounds normal. Liver descends three finger-breadths below ribs; its thoracic dulness is of normal extent. Bowels regular. Broth diet; milk, beef-tea. Plumbi diacet. gr. iiss.+acid acet. ɱvi.+aq. destill. ʒss. 3 tiis horis.

May 13.—Had an epileptic fit this morning; he had two before, but none for a year. Urine before the fit, clear, high-coloured, acid; not albuminous. Urine after the fit is alkaline, with phosphatic deposit, consisting solely of granules; non-albuminous.

15th.—Became very delirious last evening; so much so that it was necessary to confine him in bed; the delirium continued all through the night and morning, till about 2 p.m., when I ordered chloral gr. xxx.; after the second dose at 3.30 p.m. he went off to sleep, and slept till 8 p.m., when he had another dose, and slept through the night, but in the morning of 16th he was by no means rational, though quiet. He vomited thrice; did not care for food. Pulse 105; rather weak; was very small and weak yesterday. Temperature 100·4°. Tongue very dry. Pupils, very contracted last night, are now of medium size. No fever spots. The chloral was continued at intervals, so as to tranquillise him.

18th.—Had a tolerable night without chloral. Takes nourishment well. Is quiet now, and does what he is asked, but last night was somewhat delirious. Acidi muriat. ɱiij.+ inf. quass. ʒi. ter die; omit chloral.

29th.—Quite rational.

31st.—Continues quite rational. Temperature 98·6°. Pulse 100; full and soft. Urine darkens greatly when boiled with nitric acid. He went out quite recovered a few days after.

Strong evidence came before us to show that this man had long been a hard drinker, though, as he had recently come to a fresh situation with a four years' good character, it is probable that he did not get so deeply intoxicated as to be unable to discharge his duties. Such cases are well known in the army.

Case 3.—T. S., aged 39, upholsterer, tall and spare, admitted June 17, 1870. He states that about three years ago a fire occurred in his house, and that his present nervous disorder came on immediately after. He has been married twenty years and had eleven children. No appearance or history of syphilis. He is constantly trembling from head to foot, so that the diagnosis of paralysis agitans was made by one observer; his right hand trembles very markedly. He is said to have had four fits, but not, I believe, very recently. He states that his disorder consists of tremors and convulsions, but he seems to be quite free from delirium. He affirms that he can only come down stairs backwards, and that he is very uncertain on his legs. Subsequent information was obtained to the following effect:—That several of his family have been in lunatic asylums; that his mother was discharged from Bedlam incurable; that he has been a hard drinker himself, in corroboration of which, it appeared that he went out several times to get glasses of gin while he was in the waiting-room. On the 18th he was ordered potass. bromid. gr. 20+spt. ammon. co. ɱ. xv.+aq. ʒ i. 3 tiis horis.

20th.—He became delirious on the night of the 18th, though he had gr. xx. of chloral, and was so turbulent and noisy, screaming so loud, as to disturb all the patients in the ward, and to make it necessary to have a male attendant for him, and to remove him to a separate ward. He had no sleep; pulse 105; forehead cool; pupils rather large. He craves for beer, but takes food badly. Omit pot. bromid.; capiat chloral gr. 20+aq. ʒ i. *o. horâ.*

21st.—After four doses of chloral he had gr ½ of morphia injected subcutaneously about 11 p.m.; he was very noisy at this time, but soon after dropped off to sleep, and has been much quieter ever since; spoke rationally this morning, apologised for the trouble he had given. Since the subcutaneous injection he has only had three doses of chloral. 3 p.m.: Is tranquil and rational; pulse 90, soft; skin cool; tongue moist. Chop, eggs. Pt. mist. 4 tiis horis.

23rd.—Has had two good nights, and walked round the garden this morning. Has been replaced in the ward, but is very querulous and disposed to find fault, quite unreasonably. He continued free from any recurrence of his disorder, his tremors almost quite disappeared, his hand became steady, and his appetite rather voracious, but he complained greatly of debility. He was discharged about the 28th, but there was reason to believe that the craving for spirit was strong upon him, and that he had obtained a supply surreptitiously a day or two before his discharge.

Case 4.—G. W., aged 46, admitted May 9, 1870, an intelligent, respectable-looking man, had a sunstroke in India twenty years ago; it occurred in daytime, and on the march. A second attack took place after two months; he was laid up two or three months and then got well. He had a fit in London in 1851, and another at Slough in 1863, a third soon after, a fourth, the last, occurred yesterday. In the fits he loses consciousness, but does not bite his tongue. Has had dysentery several times, and is apt to have recurrences of it. Has had bronchitis the last two or three months. He admits having been intemperate; has been degraded in the army on account of it, and has continued apparently the same habit since. Lately, has been a spirit-store keeper. Says he gets all sorts of fancies in his head; talks and rambles very much; has sensations as if knives were going through his brain; gets no sleep at night; has not slept last three or four nights. Urine alkaline, deposits phosphates, is not albuminous. Tongue coated, bowels confined. Pulse 81, quiet; heart's sounds normal. Strychnine gr. $\frac{1}{30}$ acid. nitr. ɱij. + aq. ʒj., ter die. Podophyllin gr. ½ + extr. coloc. co. gr. iij., *statim* chloral gr. xxv. + aq. ʒj., o. n. Spare diet; chop. He improved speedily, slept very well the night of 13th and tolerably before, and was discharged in very fair case about 27th. He had experienced much mental trouble and anxiety, in fact was destitute when he left the Hospital.

Remarks.—In the first of these cases the signs of chronic alcoholic poisoning were very plainly marked. Yet, if we may credit the patient's statement (which I am inclined to do), he had abstained from his usual tipple (gin-and-water), or at least had taken it but moderately, for the last four months. He certainly was not at all intoxicated when he came under my care. Case 4 was much of the same kind; the man was on the verge of delirium tremens, though the means employed were just in time to avert an outbreak. How far he had abstained of late

I am not aware, but he presented no appearance of a recent debauch. In Cases 2 and 3 the patients were, in all probability, habitual spirit-drinkers, and had been so for years, but not to such an extent at any one time as to upset their cerebral equilibrium, except perhaps for a few hours. It is quite remarkable how long some persons may go on committing continual and great excess in this way without inducing any approach to delirium tremens. An officer mentioned to me the case of a sergeant-major, who was just about to receive a commission in consequence of his excellent conduct. Somehow it happened at this very time that a parade was unexpectedly ordered at midnight, at which he presented himself so manifestly the worse for liquor that punishment was inevitably substituted for the intended reward. Now, as the action of alcohol is cumulative (Dr. Parkes finding traces of it in the excreta even on the sixth day after it had been left off—*Proceedings of Royal Society*, No. 120), these cases seem to me to make decidedly against the view which regards delirium tremens as a specific toxæmia, and looks to obtaining a cure by eliminating the poison. To the same effect is a case recorded by Dr. Cuming (*Dublin Quarterly Journal of Medical Science*, 1870, i., p. 62). A man was admitted to Hospital who, during the greater part of his life, had been in the habit of drinking for a few weeks at a time several times in the year, but had never had delirium tremens. He was allowed abundant food, but no alcohol. On admission, he was somewhat, but not much, under the influence of drink. It had long ceased to make him drunk; he was morose and rather stupid, but became quite sober on the morning after admission, and complained bitterly of the restraint. On the evening of the second day he became delirious, and passed into one of the most severe attacks of delirium tremens that Dr. Cuming had ever seen. Dr. Cuming has several times witnessed a similar experiment. My belief is that the morbid condition in delirium tremens consists in what we may term hyperexcitability of the brain cells, which is usually the result of alcohol, though it may be produced by other causes, and, when once produced, is not dependent on the presence of alcohol in the system. The practical inference from this is that the object of treatment is not to get rid of a poison, but to tranquillise disorderly and excessive functional actions, and to amend the nutrition. The advocates of the toxæmic view must, if consistent, altogether withhold alcoholic stimulus; those who think differently are free to use it if it be considered desirable.

Another very practical point is this. Does the duration of the disease admit of being shortened by treatment, or is it, like the exanthemata, fated to run a certain determinate course. The latter view is that to which later authors incline. Dr. Aitkin writes that "the paroxysm works itself out in a definite time in uncomplicated cases, and sleep occurs simply as the natural termination of the disorder." I have no doubt that the malady does tend to terminate sooner or later spontaneously, and I would much rather trust to the vis medicatrix naturæ than to rude routine drugging, as Tr. opii ʒi. and tr. hyoscyami ʒij. and spt. ammoniæ ʒj. taken more or less frequently till sleep was induced, or death. No wonder that in the institution where this practice was followed the pendulum swung to an extreme of quietism. But I am also decidedly of opinion that remedies judiciously selected and used have a real efficacy in calming the delirium and conducting the morbid process to a favourable conclusion. I am quite sure that uncontrolled delirium is sometimes a very dangerous malady, destroying life rapidly. I saw a perfectly temperate man die this year from delirium, brought on by mental distress, in less than five days. He had taken little nourishment for two or three days, but twenty-two hours before his death his pulse was of good volume and fair force, only 87, and his axillary temperature 101·8°. Bromide of potassium was ordered, gr. 30 2 dis horis, and he had one cold douche to the head. Nourishment was enjoined to be given frequently, and was taken fairly I believe. Nevertheless he began to sink at 5 a.m., and when I saw him at 10 a.m. he was moribund. The cases I have narrated to you seem to me to testify decidedly to the value of remedies. It is perhaps just possible that the amendment was the result of the yielding of the disease, and not of the therapeutic action; but I think you will agree with me that the other view is so much more probable that we should do scant justice to our patients if we confined ourselves to nursing and feeding them, important as this undoubtedly is. Our first case showed signs of relapse when the bromide was given less frequently on the third day; the second after eighteen hours of active delirium was put to sleep by the second dose of chloral, and was kept quiet by the same drug until the tendency to delirium had passed away; the third was very noisy up to the time when he was subcutaneously injected with morphia, but soon after went off to sleep, and with the aid of chloral gave no further trouble.

Now, as to particular remedies in this malady, I think each case must be treated according to its own requirements. So Graves wrote long ago, stating it as well known that the disease requires very different modes of treatment, varying according to the constitution, strength, age, and habits of the patient. In the young and robust it may closely resemble delirium from congestion or inflammation of the brain and its membranes, and demand strict antiphlogistic treatment. In the old and debilitated, a totally opposite plan may often be necessary—viz., opium and stimulants; and between these two extremes there are many intermediate varieties, each requiring a special modification of practice. The first part of Dr. Graves' statement is corroborated by Dr. McCrea's recent experience on a large scale at Melbourne. He finds there that a uniform treatment, consisting of an emetic, cold effusion to the head, and free leeching, repeated, if necessary, once or twice, gives by far the best results. The same method employed here would prove, I fear, disastrous; but that seems to me no reason why I should discredit the statements of an able experienced man backed by such an authority as Graves. It was the evidence of morbid anatomy that led Dr. McCrea to use the remedies above-named, but as we do not find that our autopsies give the same results, we have sound reason for abstaining from his practice. The pathological state with which we have to deal, judging from the effects of remedies as well as from the phenomena, seems to be one of cerebral hyperæsthesia, attended with little or no hyperæmia, or in which the hyperæmia is altogether secondary to the hyperæsthesia. To many cases of this kind opium proves unsuitable, because it is too exciting. Yet even Dr. Laycock admits that in one class of cases opium and the salts of morphia have the most beneficial effect; and Dr. G. Johnson speaks of the same treatment as highly successful. In my hands, opium of late years has not proved satisfactory, and I greatly prefer in most cases potass. bromid., or chloral. Dr. Balfour has recently given strong testimony to the excellent effects of these remedies, especially the latter, refreshing sleep and speedy convalescence being induced after twelve to twenty-four hours' administration of the bromide, and more rapidly by chloral. Nevertheless, I am quite prepared to meet with cases where opium would prove more efficacious on the one hand, or antimony on the other. The quality of the morbid action varies, I believe, from a condition approaching inflammation to one which is comparable to the neuralgia of exhaustion, and as this quality varies, so should the treatment. Further, individual peculiarities have to be taken into account which are common enough, and may materially interfere with the action of a drug which is usually beneficial. We may roughly arrange the available remedies into three groups—viz., *depressants*, including leeching, the cold affusion, antimony, emetics, purges; *calmatives*, as potass. bromid., chloral, digitalis, chloroform, the ice-bag; *stimulants*, as opium, capsicum, and alcoholic compounds. Often we may take our main remedy from one class, and an adjuvant from one or both of the others.

If it be admitted that delirium tremens is not an alcoholic toxæmia, we may fairly appeal to the analogy of delirium in other diseases, where the cerebral disorder manifests different qualities in different cases, and requires different methods of treatment. In rheumatic fever, I well know that the delirium may yield either to a free administration of tartar emetic or to morphia, and the same may be said of that occurring in typhus fever.

Another point I wish to call your attention to is the occurrence of epileptiform attacks in connexion with delirium tremens. Out of our four cases, one had an epileptic attack in the Hospital, and two others had suffered from them previously. In another case which occurred to me, the malady commenced by two or three epileptic attacks in one day, succeeded on the following by delirium of a very severe kind, which destroyed life by exhaustion in little more than twenty-four hours. In a second, a fit occurred during the course of the delirium, which was so severe that it wellnigh caused death outright. In a third (fatal) case, of which I have notes, an epileptic fit occurred thirty hours before death. This tendency to complication with convulsive disorder is a formidable matter, and when it has once shown itself, the prognosis becomes decidedly more grave. I do not know that it necessarily calls for any modification of treatment, for morphia may be very serviceable in calming epileptiform attacks, but still I should generally prefer pot. bromid. in full doses in cases of this kind. The relation of convulsions to delirium, of motor to intellectual derangement, is very interesting, and I think there can be

little doubt that in the case of alcoholic delirium, at any rate, the locality specially affected is the principal determining cause of the phenomena that ensue; the hemispheres thus suffering most in delirium tremens, the excitable districts (the pons and tuberc. quad.) in convulsions. The replacement of one symptom by the other, and the production of both by the same cause, seems to me to point to this conclusion, and further to justify the view that the morbid action in both is of the same kind—viz., a condition of deranged molecular action, of which hurry and imperfection are the prominent features. The observation of the alkalinity and consequent phospbatic deposit in the urine shortly after an epileptic fit is very interesting, and viewed in connexion with other cases of disease of the nervous system, it shows how the commotion caused by a fit impairs and prostrates the nerve-power, even in organs which have no intimate connexion with the encephalic nervous centres. The alkalinity of the urine may be compared to the temporary hemiplegia or aphonia that sometimes follow an attack.

I must conclude, but not without warning you (1) against one-sided views and unthinking routine; (2) against scepticism in medicine. Do not think, however successful you may be in treating a disease as you see it, that your method is always and in all places to be the correct one. Think what a speck of time and space you occupy, and how well it may happen that elsewhere and at other times conditions may be modified, so that your experience seems to be contradicted. Again, do not lose faith in Medicine, but rather search out closely the conditions of its success. Diagnosis is, indeed, a great thing in Medicine, but it must not be such as contents itself with giving a name to a disease, but such as strives to appreciate wherein one case, or set of cases, differs from another.

LECTURES ON DERMATOLOGY,

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Lecture V.

II.—DISEASES OF FUNCTION AND APPARATUSES.

(*Continued from page* 234.)

In studying the phenomena of hypertrophy of the skin we are insensibly led on from the general to the special. Beginning with the general in the instance of akrochordon, we find our attention in the next place diverted to the papillæ cutis, as in verruca; and subsequently we shall discover other components of the integument pressing their claims upon our attention; it may be its fibrous tissue, or its subcutaneous tissues, or it may be its vascular tissue.

The white fibrous tissue of the derma is liable to hypertrophy, and the hypertrophous tissue may present itself in the form of rounded masses—namely, tubercles or tumours; or in the form of cords or flattened growths. Conjoined with molluscum, which is a hypertrophy of the connective tissue giving rise to soft superficial tumours, we sometimes meet with hard flattened tumours resulting from hypertrophy of the white fibrous tissue of the deeper portion of the derma. These are simple fibrous tumours (fibromata) and we also meet them alone and without any trace of molluscum. When these tumours assume a longitudinal growth, when they produce ridges under the skin, sometimes by extension of growth and sometimes by union with other masses of a similar kind, they constitute the tumour which is known by the name of *cheloma* or *cheloides*. Cheloma admits of a primary division into idiopathic and traumatic. The forms which the idiopathic kind assumes may be inferred from the names which have been assigned to them, for example, cheloma cylindraceum, clavatum, ovale, and radiciforme. The traumatic kind very frequently takes on the appearance of a network of fibrous cords, and may result from any foregone irritation of the skin, that of most common occurrence being burn or scald.

Another strange form of disease originating in a kind of hypertrophy or proliferation of the white fibrous tissue and connective tissue of the derma is termed *morphœa*. In morphœa, after a temporary hyperæmia, the connective tissue of the derma begins insensibly to proliferate and increase in quantity at the expense of the more highly organised tissues, the vessels, and the nerves. It is probable that the connective tissue of the coats of the vessels, as also of the sheaths of the nerves, takes on a similar proliferating action until, in the end, the part attacked has the appearance of a smooth white cicatrix. With the loss of capillary vessels the part becomes pale; with the loss of nerves it is insensible. It is dense and hard from the increase of white fibrous tissue, and the hardness sometimes extends in cords through the neighbouring structures. Its smoothness and whiteness have suggested to different observers a comparison with the dead skin, with ivory or alabaster, or with a skin infiltrated with wax. The disease occurs in patches of various size and extent, sometimes stretching along a part of a limb; and, after a time, the skin either returns by degrees to its normal condition, or falls into a state of permanent atrophy, the part looking withered and dead.

In another pathological state, without any apparent change of structure, and without alteration of colour, the skin becomes so hard and rigid as to warrant the use of the term *dermatosklerosis*, or hardening of the skin; and no less conspicuous than the hardness is a remarkable state of contraction of the affected integument. As a consequence of contraction the lines of motion and wrinkles of the skin are completely obliterated; the surface is as smooth as polished horn, it adheres firmly to the structures beneath it, it seems as if it were incorporated with the fasciæ and bones, the joints of the affected region are rendered inflexible, and the prominences of the bones, particularly the extremities of the phalanges, are pressed upon with such extreme force that they are apt to be forced through the integument. While, in the region of the face, I have seen the lips and eyelids drawn asunder, and the teeth held closely together; in morphœa this extreme degree of induration, and this equally extreme degree of contraction, are absent; in it the most remarkable change of the skin is one of deterioration of structure; the substitution of connective tissue for more highly organised tissues; while in dermatosklerosis the secondary change is atrophy, extending through the soft parts even to the bones.

A local form of dermatosklerosis is met with in the lower extremities, and most commonly in association with varicose disease of those members. The varicose state of the veins causes impeded circulation and venous transformation of the blood within the dilated capillaries. Nutrition is retarded, and not unfrequently suspended. The more highly organised parts of the skin, such as the papillary layer, fall into a state of atrophy; the place of the latter becomes occupied with tissues of a lower type of organisation, such as connective tissue and fat, and the entire thickness of the skin is converted into a smooth, dense, and fibrous stratum extending inwards to the fascia of the limb, with which it becomes identified, and coated externally by a thick horny layer of epidermis, and more or less pigment. Sometimes the skin has the density of horn or cartilage, and I have recorded one instance in which it contracted upon the subcutaneous tissues and around the limb like a clasp of metal. The morbid affection was situated just above the ankle. This part of the limb was very considerably reduced in size, while above and particularly below the hardened band, the integument was œdematous. Mr. Gay, who has had the opportunity of investigating and making dissections of this form of disease of the integument, compares the sensation communicated to the hand with that of handling india-rubber.

There remains for us only to note, in connexion with diseases of the integument dependent on altered nutritive function, the occasional presence of *atrophy of the skin*. I have met with instances in which the atrophy was so extensive as to occupy almost every region of the body, while, in general, it is restricted and often very limited in extent. Sometimes it would appear to depend on general constitutional causes; at other times to be due to a special affection of a nervous twig, or again, to a condition of the tissues themselves. It is well known that distention of the skin by the growth of the body as in pregnancy, or by the increment of fat or fluids in its substance, will produce a partial rupture of the corium; these ruptured lines will show a slight effort to inflame, and when the causes of distention have ceased, we shall find, in place of the red waving line which betokened inflammation, a pearl-white and bluish streak, presenting all the characters of a cicatrix. These *lineæ* or *striæ atrophicæ* are met with on the abdomen and mammæ of pregnant women, on the mammæ of women who have become thin after being previously fat, and on the abdomen of corpulent men. But on the other hand they are also found, not unfrequently in persons and under circumstances in which distension cannot be alleged as a cause, and which render it sufficiently obvious that two factors are present as contributing to the morbid affection; one of these being a state of debility of the tissues of the individual, and the other the

mutual compression of adjoining parts. I was struck, on one occasion, by seeing the mammæ of a girl of 17 strongly marked with striæ atrophicæ; and the case had a double interest from the presence of morphœa, another disease of deranged nutrition, in the same individual; and I have published several cases of a similar kind—among others, one which was shown to me by Mr. Nunn, and affected the integument of the back, in the neighbourhood of the spine. I have more than once seen a condition of integument which I should describe as a *cellulitis*, extending in depth through the whole thickness of the subcutaneous cellular tissue. It begins as a slight and transient erythema, the erythema being accompanied with a feeling of weight and stiffness of the part. The integument is not so much swollen as filled out and rendered dense throughout its substance; to the hand it communicates the feeling of hardness and solidity, and although the enlargement and hardness must be due in some measure to infiltration, there is no evidence of œdema. The morbid state is altogether a peculiar one, and no doubt corresponds with an affection which in some parts of the West Indies is termed "the rose," and is the precursor of the "Barbadoes leg," bouknemia, the elephant leg of the Arabians.

A chronic cellulitis with infiltration and hypertrophy of the white fibrous and cellular tissues, would be the proper pathological expression for the elephant leg of the Arabs; but as this affection so far from being limited to the leg is met with in other regions of the body, a better and more correct appellation is *spargosis;* a word employed by Dioscorides, and as a verb, by Hippokrates himself. We should thus have spargosis cruralis the equivalent of bouknemia, together with spargosis brachialis, scrotalis, penis, clitoridis, etc.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS ON THE TEMPERATURE OF DISEASE.

By EDWARD LONG FOX, M.D.,
Physician to the Bristol Royal Infirmary.

(*With a coloured Diagram.*)

IX.—ACUTE TUBERCLE.

Clinical phenomena indicate a close similarity, if not an essential identity, between acute tubercle and chronic phthisis; and post-mortem appearances show far more than an accidental resemblance between them.

In both we continually meet with enlarged, tuberculous, cheesy or cretified glands, cervical, bronchial, or mesenteric: in both a tendency to ulceration of the intestinal glands. The miliary form of tubercle often co-exists with tuberculous infiltration in chronic phthisis and in acute tubercle, and cavities, though more frequently met with in chronic phthisis than in acute tubercle, are found also in the latter disease, but generally with some evidence of having been rapidly formed.

Even Niemeyer, who holds most strongly the view that much of what is called consumption is due to a chronic pneumonia, says, in opposition to Virchow, "It not unfrequently happens that these translucent greyish nodules, which are scattered through the lungs, as well as in most other organs, in acute miliary tuberculosis, and of whose tuberculous nature there cannot well be any doubt, are also met with in phthisical lungs. Hence we must also acknowledge the yellow caseous deposits found in the lungs (notoriously regarded as miliary nodules) to be of tubercular nature, when they co-exist with grey miliary tubercles, and when the latter, together with caseous tubercles, are found in other organs at the same time. There are no means of proving that the caseous nodules are the product of vesicular pneumonia, and not tubercle, as we have no criterion for the distinction between caseous tubercles and caseous miliary nodules of inflammatory origin."

The clinical phenomena also own a similar relation in the two diseases. The rapid pulse, the generally hurried respiration, the perspiration, the temperature of acute tubercle and of the active periods of chronic phthisis—a temperature high for the most part, but interrupted by irregular remissions of considerable intensity—the tendency to diarrhœa in some forms of both, are all symptoms that unite the two conditions, and serve to connect them more closely to each other than to any other form of malady.

The forms are various under which acute tubercle manifests itself. It may attack the brain and meninges, and the cerebral symptoms may be masked by the greater prominence of the respiratory difficulty or of the diarrhœa. It may attack many organs of the body at once, whilst the only prominent symptom will be bronchial irritation. It may affect the lung only or mainly, and give rise to no physical sign whatever, or it may be accompanied by the fine crepitation usually pathognomonic of pneumonia, whilst after death there may be found no trace of pulmonary inflammation. It may take its seat in the lungs, or the pleura, or the peritoneum, or in the intestinal glands, whilst the chief symptoms throughout the whole disease will be cerebral. Or, again, it may not unfrequently simulate enteric fever, and be accompanied by considerable diarrhœa: whilst in one case there will be found serious engorgement and ulceration of Peyer's patches, and in another, with similar symptoms, no affection whatever of the intestinal canal and its glands.

It is confessedly a pathological condition most difficult to recognise, and the thermometer seems likely to do much in clearing up the present obscurity.

Case 62 was an example of acute tubercle with the physical signs of bronchitis, and in which, with no diarrhœa, there was much ulceration of the intestinal glands. A servant girl, aged 17, had been ill ten days with weakness and cough and frothy expectoration. Fine râles over both lungs. She lived for about a month, and before death the physical signs of softened tubercle showed themselves at the apex of the left lung. No diarrhœa throughout.

Post-mortem Examination.—All the upper lobe of the left lung in a state of caseous infiltration, which had almost universally softened and formed small vomicæ, not lined by any false membrane. A small edge of the lower lobe was free from tubercle, but the rest of the lower lobe profusely studded with miliary tubercle. Right lung so adherent at the apex that some of it was left attached to the thorax when the lung was removed. The whole of the two upper lobes were broken down into a pultaceous mass, like a lung just passing into a state of grey hepatization; lower lobe studded with miliary tubercle. Liver fatty; spleen healthy; pancreas small; kidneys pale; mesenteric glands rather enlarged. Much ulceration of Peyer's patches, especially just above the valve. In some of the patches tubercle was visible at the base of the ulcers. The ulcerations extended very far up the intestine. The colon was a good deal ulcerated from the valve to about halfway across the transverse colon. Some recent peritonitis.

Case 63 was an excellent example of what Jules Fournet calls the suffocative form of acute tubercle. He says that this phthisis, fortunately very rare, is very like, in its external aspect, pneumonia complicated with catarrh. In this case what physical signs there were resembled those of the first stages of pneumonia, but this is not usual in this form. It is a satisfactory case as having been under observation from the second day of the disease. Mary B., aged 16, a servant, seemed quite well two days before her admission into the Infirmary. Her illness began with rigors, headache, heat of skin, and some dry cough. On admission she was rather blue in the face, breathing thirty-six times in the minute, and without any physical signs connected with the lungs. The suffocative appearance, with the high temperature, rapid pulse, and frequency of breathing, added to the negative physical signs, immediately suggested the idea of acute tubercle, but a very similar condition may sometimes be observed in patients dying of the gradual formation of pulmonary clot in acute rheumatism. As, however, the case progressed, the irregularity of the temperature confirmed the original diagnosis. On two occasions in the course of the complaint fine crepitation was heard, once over the lower half of the right lung posteriorly, and once over the upper portion of the left lung anteriorly. There was, however, no distinct dulness. There was slight delirium during the last forty-eight hours of life. The pulse remained at 120 during the first eleven days; afterwards, on the 12th, 13th, 14th, 15th, 16th, 17th, and 18th days respectively, it numbered 132, 132, 164, 144, 120, 132, and 144 beats. The most rapid pulse by no means corresponded to the highest temperature. The respirations on these last days of life were 48, 48, 60, 60, 50, 72, and 64.

Post-mortem Examination.—No trace of pneumonia or of pleurisy in either lung. Both lungs equally and profusely sprinkled with miliary tubercle over their whole extent. The whole of the mucous surface of the ileum studded with minute white elevations. Peyer's patches healthy. No trace of tubercle in any other organ. The absence of concurrent pneumonia is interesting in connexion with the fact that towards the close of life the chlorides in the urine were manifestly

diminished—a point I have never been able to observe in other cases of acute tubercle.

In case 64 the same irregularity of temperature was noticed as in the former cases. The fatal event did not occur before the 50th day, which is somewhat uncommon. It is perhaps more usual, as Niemeyer says, to see death take place after the lapse of a fortnight, or a few days longer; and more rarely is it met with at the end of the fifth or sixth week.

There is, of course, considerable difficulty in some cases in fixing exactly the commencement of the disease. Case 65 was an instance of this. The man thought he had taken cold eight weeks before admission, but he had not been under Medical care, and no clinical phenomena therefore were forthcoming as to his state in the few weeks immediately preceding his admission. He came in with cough and thick expectoration, with some dulness in the upper fourth of the right lung, with increased vocal resonance, and moist crepitus all over the right side, especially at the apex. Breathing, poor in both lungs posteriorly, and in the upper part anteriorly; night sweats; rapid emaciation; great pallor; some diarrhœa later; and the disease ended with purpura and ascites.

Post-mortem Examination.—A very large amount of yellow tubercle all through the right lung. Many cavities in the upper lobe not lined by any false membrane. Lower lobe compressed by fluid and spleuified, but containing a good deal of miliary tubercle. Left lung like the right, except that the breaking down was less advanced, there being only one small cavity at the apex. Bronchial glands swollen. Much old and recent pleurisy on both sides. Much clear fluid in abdominal cavity. Liver healthy. Spleen with much tubercle on its external surface. An immense number of ulcerations of the small intestines. Several round ulcers in the duodenum. Peyer's patches all ulcerated, and many solitary glands standing out prominent, with much white tubercle. Mesenteric glands large.

I use the expression "yellow tubercle" advisedly, for it is difficult to conceive that these yellow nodules owned a different origin from the grey miliary nodules. And, comparing the temperature chart of this case with that of Case 63, we find the same tendency to considerable elevation—104° (40° C.) and 105° (40·5° C.)—with the same sudden remissions, and generally without any alleviation in the symptoms.

It is this elevation of the temperature, with sudden, intense, and irregular remissions, that enables us to form a diagnosis between some of these cases and enteric fever. In the former we often find nearly all the symptoms of enteric fever—the aspect, rapid pulse, coated tongue, thirst, abdominal tenderness, gurgling in the right iliac fossa, profuse diarrhœa, with some delirium; whilst in enteric fever, on the other hand, we may have no eruption, no diarrhœa, some delirium, and hurried respiration. In acute tubercle, it is true, we generally find the abdomen flat rather than tumid, but cases are met with in which tympanitis exists to a considerable extent.

The pulse in acute tubercle is generally more rapid than in enteric fever, and the respirations more hurried; but both these symptoms vary exceedingly in the latter disease. The temperature alone seems tolerably constant. It is as irregular in acute tubercle as it is regular in enteric fever.

This irregularity is exemplified in Case 66, in which, on the twenty-fourth day of the disease, the temperature fell 7° Fahr. (about 4° C.) in twelve hours, and nearly 10° Fahr. in twenty-four hours. This occurred in a child, aged 11, in whom there was found a good deal of tuberculous ulceration of the colon; but there had been no diarrhœa.

Perhaps Case 67 forms as good a connecting link between these cases and chronic phthisis as can be found in an example not verified by post-mortem examination. The man had been ill about thirteen weeks when admitted. He had great emaciations, night sweats, with poor breathing, and prolonged expiration over the upper half of both lungs in front; much gurgling, pectoriloquy, and dulness at the base of the left lung behind. His father died of phthisis at the age of 26, after only six weeks' illness. This patient lived for six weeks after admission, and was troubled with diarrhœa. It is probable that there would have been found in this case chronic pneumonia, with miliary tubercle. But, whatever the post-mortem appearances might have been, the clinical thermometric phenomena manifest a close relationship between this case and acute tubercle on the one hand, and chronic phthisis on the other. Of course, when a rapid growth of acute tubercle in any part of the body is engrafted on previous acute disease, it is more difficult to recognise its presence. The height to which the mercury rises, and the irregular intensity of its remissions, will, however, be considerable aids to diagnosis.

Wünderlich mentions three types of temperature-course in acute tubercle—

1. In which the course of the temperature resembles that of a catarrhal fever and, later on, hectic.
2. In which it simulates the thermometric phenomena of enteric fever.
3. In which it is not unlike ague.

Having no personal experience of the latter form, we would reproduce Wünderlich's statement that the temperature in acute tubercle may intermit with the regularity and in the form of a tertian or a double quotidian fever; but in such cases we may suspect the presence of an acute tuberculosis by the attack appearing principally in the afternoon, by the exacerbations being somewhat lower than in ague, and the remissions more intense. As the disease progresses, the intermittent character disappears. It is at all times a very rare form.

In the first form, the continuance of a high temperature will serve to separate it from catarrhal pneumonia. Here again, too, the irregularity and intensity of the remissions helps us to a diagnosis. When, however, the growth of tubercle is on the meninges, the temperature (as has been pointed out in a former paper) is less elevated and less irregular, even when there is considerable coincident miliary growth in other organs of the body.

In diagnosing the second form, in which the temperature simulates that of enteric fever, we may add to other points of distinction that very intense remissions in enteric fever will be caused by some definite loss—excessive diarrhœa, or intestinal hæmorrhage—or by the effect of some remedy, whilst in acute tubercle we can trace no such cause; whilst, again, in enteric fever any decided elevation out of the usual thermometric course peculiar to the disease will point either to a relapse with fresh intestinal ulceration or to some complication (pneumonia, peritonitis, abscess, etc.) which may generally be recognised.

The pulse in acute tuberculosis is generally very rapid, and often remains at about the same frequency at the highest elevation of the thermometer and the lowest remission. The respirations are excessively hurried where the growth of tubercle attacks the lungs wholly or mainly; but cases are constantly met with of tubercular meningitis, in which the breathing is but little hurried, whilst after death the lungs are found full of miliary growth. Other examples of acute tubercle, in which the seat of the disease is chiefly peritoneal or intestinal, may be accompanied by almost normal respiration.

NOTES ON CASES OF SCARLET FEVER OCCURRING IN DISPENSARY PRACTICE IN 1869.

By R. SHINGLETON SMITH, M.D. Lond., B.Sc.

Late House-Physician and Medical Registrar to King's College Hospital, and Resident Medical Officer to St. Pancras and Northern Dispensary.

The epidemic of scarlet fever which for the last two years has existed in the London district, and which has for a very long time appeared as the cause of a number of deaths, varying from 100 to 300, in the Registrar-General's weekly return, is well deserving of study, both with regard to its distribution and the general character of the cases. As Resident Medical Officer to a rather popular dispensary, it fell to my lot to see a considerable number of cases of scarlet fever during the last six months of the year 1869. An abstract of these cases, showing the rate of mortality and the comparative frequency of certain complications, may be considered as not devoid of interest. The patients resided within a radius of one mile of the St. Pancras Church; for the most part they lived in the district between Burton-crescent and the Gray's Inn-road, but many of these lived on the north side of the Euston-road, in the district of Somers Town. They were distributed irregularly over this area; no one part seemed to be peculiarly favourable to the spread of the disease. Eight of the cases occurred in one house in Burton-street, and of these eight two died. Up till the month of July cases had occurred occasionally, but they had not been numerous; this was more remarkable since the Registrar-General's reports showed that the disease existed abundantly throughout the London area, and the neighbouring parish of St. George's, Bloomsbury, had for six or nine months previously contained a large number of cases. During the five months, July to November, 80 cases of decided scarlet

fever were noted by me; other cases were seen, but escaped accurate observation; they were distributed as follows:—In July 15, August 14, September 5, October 30, and in November 16. Of these 80 cases 12 died: this is at the rate of 15 per cent.—a very decidedly high rate of mortality occurring in patients attended at their own homes, and without any selection. At the London Fever Hospital the mortality for the whole year (1869) was 15·3 per cent.; this is considered high, even for a Hospital to which, as a rule, only severe cases of scarlet fever would be sent, and the large amount of mortality is explained by the fact that an unusually large propertion of the patients were dying at the time of admission. With my cases, however, there was no selection; the patients had not to undergo any journey to a Hospital or exposure to cold, and yet the rate of mortality is as high as that reported by Dr. Murchison at the Fever Hospital. How can this mortality be explained? Before answering this question, I must particularise the cause of death in the twelve fatal cases. Two died within thirty-six hours of the attack, from sudden intense prostration; three died from anasarca and convulsions within a fortnight from the attack; the seven others died within four or five days of the attack, from a very severe form of the disease, accompanied by extensive swelling and brawny infiltration of the tissues of the neck, resulting in gangrene in those which lived long enough. Nine of the cases, then, died simply from the severity of the primary disease; the three others from an accidental complication, which judicious nursing and treatment might possibly have obviated. The patients were for the most part children of poor parents; many of them were decidedly unhealthy, ill-fed, and strumous, and when ill they had not the best of nursing; and to these circumstances, combined with the severity of the epidemic, must the high mortality be attributed.

Of the whole number of cases (eighty), glandular swellings in the neck, sometimes resulting in abscess, occurred in seventeen; extensive œdema, brawny induration, and gangrene of the neck occurred in eight cases, of which one only recovered; albuminuria with anasarca was present more or less in fifteen cases; rheumatic pains, and in one case articular swelling, in four; ulcerative stomatitis in two. Only thirty-three of the whole number get well without having had some complication or other. The large number of cases in which albuminuria existed contrasts most unfavourably with the report of the Fever Hospital, where, amongst 614 cases, renal dropsy occurred in only five; and this good result is presumed to be due to the rule that no patient with even a mild attack shall leave his bed within three weeks from the beginning of his illness. With dispensary patients at their own homes, especially in the case of children, any such rule becomes futile, and to the carelessness and indifference of the patients with regard to exposure must be attributed the unusual number of cases of kidney complication. This fact indicates the necessity for, and advantages to be derived from, such an institution as the London Fever Hospital, apart altogether from the question of contagion. If, however, the disease is to be kept in check by any process of seclusion, legal compulsion will be necessary; for it very rarely happens that mothers will voluntarily allow their children to be taken away to any such fever Hospital.

The number of cases in which severe local œdema and inflammatory swelling, with induration and gangrene affecting one or both sides of the neck occurred is remarkable; these cases were all very intense from the onset, and most of them died within four or five days, swallowing and breathing having become almost impossible; delirium was also an early symptom, great restlessness, and then coma supervened. Two other cases, which I shall give more fully presently, were of longer duration; in one a slough separated from the neck, and was gradually spreading, when the child died, about three weeks from the onset of the attack; in the other a large slough came away from the neck, the wound healed up, and the boy recovered with a temporary parotid fistula. In these two cases there was another curious phenomenon, of which I can find little mention in the ordinary text-books. After the disappearance of the rash, and whilst desquamation has been taking place, a second rash has come out of typical scarlet fever character, accompanied by an increase of the pyrexia, followed by increase of the swelling in the neck, and, subsequently, by renewed desquamation. These two are the only cases in which a second appearance of the scarlatina eruption was noticed, and they are, I think, of sufficient interest to warrant my giving further particulars concerning them.

Alice Mary W., aged 1 year and 9 months, a strumous-looking child, but of healthy family, was taken ill on August 24 with sorethroat and rash. On the 26th scarlet rash was well out over the whole body, and a small ulcer was seen on left tonsil. On the 28th the right side of the neck began to swell. On the 30th the right side of the neck below and behind the ramus of the jaw was much swollen, tense, and indurated. Some leeches were applied; port wine and chlorate of potash, with hydrochloric acid and liquor cinchonæ, ordered. On September 2 there was less swelling in the neck, and the child seemed better: desquamation had commenced. On September 5 a typical scarlatina rash, covered, and to some extent obscured, by the desquamation, reappeared over the whole body, and the child did not seem so well. On September 8 the right side of the neck was more swollen and tense. An incision was made into the swelling, when very little sanious pus exuded, but no blood. The whole mass seemed to be dry and the blood stagnant. Around the indurated part several large veins were visibly distended. On September 9, four days after the second rash appeared, the left side of the neck, which had been previously somewhat swollen, began to increase in size very rapidly, and soon became as much swollen and as much indurated as the right side. On September 12 the slough began to separate on the right side. On the 13th there was a large open wound in the neck, produced by partial separation of the sloughing tissue, with dead tissue at the base and all around it. The face was swollen a little; eyelids œdematous. A trace of albumen was present in the urine. The pulse was several times counted at 200. On the 14th eyelids so much swollen that they could not be opened. Hands a little œdematous. Pulse 200. Died at 2 o'clock.

The other case in which a second rash appeared is the following:—

Henry W., aged 5, first seen on November 2. He had then been ill a fortnight with rash and swelling in the neck, and was now peeling. There was a hard brawny swelling involving both sides of the neck, and especially the right parotid region. Was ordered port wine and ammonia with liq. cinchonæ. On November 6 some roseolous spots came out on the legs and arms, and a thick, red, minutely papular rash over the back, fading on pressure. On the 7th the rash on back was fading, but the spots on the arms and legs had run together, forming roseolous patches. The neck was much swollen and very indurated. On the 10th an incision was made over the right anterior parotid region, when a little pus exuded; on right side of neck, below ramus of the jaw, a slough was beginning to separate, also a smaller one on left side. On the 14th there was copious venous hæmorrhage from the wound. He was ordered iron and quinine mixture, and had the wound dressed with carbolic acid lotion. On the 16th sloughing still going on; a large surface, three inches in length transversely, was exposed on the right side of the neck beneath the angle of the jaw. He was very weak, but took his food well. Pulse was 120. Skin was still peeling. On the 25th sloughing had ceased; there was no induration, wound was healing, and he was regaining strength. The opening over the right parotid remained unclosed, and discharged saliva copiously. On December 13 he was getting about; the wound in the neck almost well, but the parotid fistula still exuded saliva freely at meals. On January 20th the parotid opening having been kept closed with strapping had healed and ceased to discharge. Patient quite well.

What is the nature of this second rash which was observed in the two cases just reported? Is it allied to the roseola of cholera, to the roseola of pyæmia, to the petechial eruptions which frequently appear in patients suffering from chronic cachectic diseases, or is it really a second appearance of the true scarlet fever eruption? These cases rather indicate that the latter hypothesis is the true one. The rash had the appearance of an ordinary scarlatina eruption; it was accompanied by increase of the pyrexia, by renewed glandular swelling in the neck, and was followed by renewed desquamation. However rare it may be for patients to take scarlet fever twice, and especially within so short a period that the two attacks may almost count as one, I think the above stated characters compel us to adopt the opinion that the second attack is due to the effects of re-absorption of the scarlet fever poison, or at any rate to influences similar to those which induced the primary attack.

Dr. Murchison states that at the London Fever Hospital the number of cases in which complications occurred was 24·6 per cent.; the remaining ones, 75·4 per cent., got well with no complication whatever. Of the 80 cases which I attended from the St. Pancras and Northern Dispensary, only 33 were cases of simple uncomplicated scarlet fever, 41·25 per cent. recovered without complication of some kind, whilst 58·75 per cent. had some one or more of the numerous complications and sequelæ

incident to the disease. The results are thus vastly in favour of the Fever Hospital, notwithstanding the risk which must accompany removal to that institution after the scarlet-fever rash has appeared. It would be interesting to know if other Medical men engaged in Dispensary or parish practice in the metropolis have met with a similar amount of mortality and have had a similar proportion of complications.

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IODINE AS A TOPICAL APPLICATION TO WOUNDS, ETC.

By JAMES STIRTON, M.D.

In December of 1869 I was compelled, owing to the failure of other methods of treatment, to try the injection of a strong tincture of iodine, in a case of dropsy of the knee-joint, with a good and apparently permanent result. About the same time there came under my notice a case of fistula in ano (a highly strumous subject), which had recurred again and again, after thorough division by the knife, and with such aggravations that the patient's life was rendered miserable. At my wits' end I tried injections of iodine, after getting the system as well regulated as possible, with good results for a time; but a recurrence of the discharges with all the attendant painful symptoms, induced me to incise pretty freely in the usual way, and afterwards impact into the cut surface an ointment containing a large proportion of iodine. No disturbance of system ensued, but a rapid healing without union, and no return after an interval of four and a half months.

The next case wherein I used iodine was a scrofulous abscess in the groin. I injected a solution of two grains to the ounce of water, with the addition of a little iodide of potassium, every twelve hours for three days, when rapid contraction and healing ensued. Success in this case rendered me bold, and I now began to use iodine as a topical application to wounds of all sorts, including incised, and much in the same way as carbolic acid is used. I was astonished at the results. I still employed the solution containing two grains to the ounce of water. The first instance of this application was after excision of a small tumour. I confess it was with some fear and trembling I squirted the solution on the cut surface, but the glazed appearance immediately assumed, and the rapid healing by the first intention, both surprised and delighted me. At this stage I happily induced Mr. Wilson, of the Veterinary College here, to try the use of iodine on various animals, and with the same happy results in the great majority of instances. It is no uncommon request now, on the part of grooms and others, to have the "brown bottle" to apply to abraded surfaces, etc. As there is every probability of his publishing a detail of his cases under this treatment, I forbear giving any from the horse.

I have not yet had sufficient experience to enable me to determine how strong a solution or ointment may be employed locally—of course, other solvents than water being employed—but the presumption is in favour of strong applications; at least, no general disturbance of the system has hitherto ensued, while good results have been obtained in two or three almost desperate cases.

There are two or three considerations why iodine should hold as good place as, if not better than, carbolic acid as a topical application.

1st. Its well-known action, in whatever part of the body, of determining just that degree of congestion (or call it what you will) of the surface which is attended with the production of such a degree of plastic lymph best suited for adhesion of parts in contact.

2nd. The well-known destructive effect it has on all the living germs that float in the atmosphere, or are carried in water, such as the so-called monads, vibrios, etc. I mention this as the germ theory of many of our acute diseases is now rampant. Query: Might not the application of iodine obviate to a great extent, at least, the spread of Hospital gangrene?

3rd. Being one of the elements, or at least a very stable substance under any reaction whatever, it is not liable by contact to enter into any unknown, and it may be deleterious, chemical compounds with the living tissues, as carbolic acid may presumably do.

4th. As shown in one instance, at least, it has a wonderful power of separating dead or dying tissue from the living and active. I allude to the case of a carbuncle on myself, where I was gratified with the result.

I might, of course, enlarge considerably on this head, but as the subject is purely speculative, I forbear, and conclude with the hope that others may find, under its action, as good results as I have done.

I may mention that phosphorus has similarly engaged my attention to a small extent, but as I am not in a position to pronounce definitely concerning its local action, I desist at present.

15, Newton-street, Glasgow.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

FURTHER

HOSPITAL EXPERIENCE OF OVARIOTOMY.

CLINICAL REMARKS.

By T. SPENCER WELLS, F.R.C.S.,

Surgeon to the Queen's Household.

Wednesday, August 3, 1870.

Gentlemen,—The operation just performed is probably the last I shall do before the in-patient department is closed towards the end of this month till the end of September, for the usual annual cleansing and whitewashing of the wards, and I think the opportunity is a good one for reviewing the history of ovariotomy in this Hospital during the past two years. It is nearly two years since details of any of my Hospital cases were published in the *Medical Times and Gazette* of September 26, 1868, the last case, the 128th, having been operated on July 29, 1868, just before the annual closing. I have now had all the cases from the 128th down to that just done arranged in a table (*see* pp. 266-269), so that all the leading particulars respecting each case, and the peculiarities of each operation, may be seen at a glance. The numbers of the Hospital cases are given in Roman numerals, CXXIX., and so on; while the figures in ordinary type, 279, etc., show the corresponding number of the case in my entire practice, including both Hospital and private practice.

After looking over the table we will consider what lessons we may learn from the facts so recorded, but I may premise that the results in Hospital have not been nearly so satisfactory of late as in private. In my early experience the advantage was on the side of the Hospital patients. Then the results became equalised. But latterly the advantage has been greatly on the side of the private patients. Thus, in these tables I have particulars of 47 cases operated on during the last two years. Of them 28 recovered and 19 died, a mortality of 40 per cent. But during the same period in private practice I have operated on 57 patients with a result of 43 recoveries and only 14 deaths—a mortality of 24 per cent., which, compared with the 40 per cent. in Hospital, is a startling difference. The causes of this difference we will investigate after carefully arranging the facts.

It would seem as if there were a fixed belief in the minds of some very excellent persons that there was no possibility of speaking with any degree of exaggeration upon the subject of opium-smoking in China. From daily inquiries we are persuaded that, whilst the evil is very general amongst all classes, its frequency is commonly overstated both by Chinese and foreigners. It is too ordinary a custom to be looked on as a disgrace, and therefore no very strong motives exist for its denial. The native drug is coming into much more general use in Hupeh, or at least a mixture of the Indian with the Chinese product is becoming the favourite article. This is partly from the reduction of the duty in favour of the native opium, and partly from the larger quantity grown in the immediate district. The Indian drug has been latterly rising in price in Hankow. These remarks must not be construed into any complaisant regard of the immense evil of this growing propensity, nor of the fearful responsibility of those who were the first to stimulate the natural demand of the Chinese mental and physical constitution for something which is as food and comfort to those who will not seek them in honest work and humble worship.—*Annual Report of the Hankow Medical Mission, by F. Porter Smith, M.B.*

No.	Medical Attendant.	Date of Operation.	Age.	Condition.	Duration and Progress of Disease; Catamenia.	Previous Treatment and Tappings.	Measurements:— 1. At umbilical level. 2. From ensiform cartilage to umbilicus 3. From umbilicus to symphysis pubis	Uterus: Situation, Displacements, Mobility, and Length of Cavity.	Diagnosis.
279 ... (cxxix.)	Dr. W. Williams, Montague-square	Oct. 7, 1868	46	Single ...	Increased in size gradually, painlessly, from summer, 1867, until Christmas, 1867; since more rapidly, and pain in left hip, left lumbar region, and across umbilicus; lately also pain in right iliac region; catamenia irregular since Sept., 1867.	Not tapped ...	1. 41 inches 2. 10 inches 3. 7 inches	Uterus small, atrophied, high, retroverted, os and cervix atrophied; mobility free laterally; cyst felt through posterior wall of vagina	Multilocular ovarian cystoid
281 ... (cxxx.)	Dr. Livy, Bolton ...	Oct. 14, 1868	47	Widow (10 years), 6 children, eldest 28, youngest 10 years old	Five years ago gradually increased; pain in left hypochondriac and lumbar region; more painful after catamenia became irregular	Not tapped ...	1. 44 inches 2. 9 inches 3. 10 inches	Free, normal; cavity 3 in.; os admits first phalange; cervix normal; tumour felt through fornix	Multilocular ovarian tumour
282 ... (cxxxi.)	Dr. Hardinge, Grafton-street	Oct. 14, 1868	16	Single ...	In April, 1866, commenced with pain in left hypochondriac and lumbar region; enlarged gradually; apex of heart in third intercostal space; superior and inferior epigastric veins dilated; not menstruated	Not tapped; iodine internally and externally from April, 1866, for two years	1. 39 inches 2. 10 inches 3. 9 inches	Could not examine by vagina, hymen intact, but by rectum the pelvis was found free from any tumour	Large semi-solid tumour, probably ovarian, possibly uterine; a little ascitic fluid
284 ... (cxxxii.)	Mr. King, Camelford, Cornwall	Oct. 21, 1868	35	Single ...	In middle of Nov., 1867, commenced getting stouter, pain in groin and pubic region, slight bearing down of uterus, gradually increased in size; peritonitis around and above umbilicus; right lumbar sound dull, left clear; distinct fluctuation; both legs œdematous up to knees. Regular until 12 months ago, when she had flooding during 3 months; regular since until August, 1868, when catamenia ceased	Tapped Sept. 2, 1868; 11 pints of colloid fluid. Had inflammation of cyst in Sept. and Oct.; punctured Oct. 6; at site of puncture several pints of fœtid fluid and gas escaped. Injected solution of carbolic acid during two days, after which patient improved	1. 39 inches 2. 9 inches 3. 10½ inches	Uterus free	Multilocular ovarian cyst; peritonitis on upper surface
287 ... (cxxxiii.)	Dr. Heginbotham, Bruton	Oct. 27, 1868	53	Married 11 years; no children; 1 miscarriage 3 months after marriage	Began to increase in February, 1867; without pain until Midsummer, 1867, when pain set in in left groin and pubic region. In September, 1867, suddenly got much smaller—almost natural sized during 3 months—after which increased more rapidly; lumbar sound clear; œdema of both legs, left more; a semi-elastic tumour with crepitation above umbilicus; aortic pulsation; catamenia ceased 4 years ago	Iodine internally Tapped 6 times 1. March, 1868, 4 gals. clear fluid; 2. May, 1868, 4 gals. of dark fluid; 3. June 2, 1868, 30 pints of clear fluid, neutral, sp. gr. 1012; 4. beginning of July 15, pints; 5. Aug. 30, 14 pints; 6. Sept. 20, 13 pints	1. 41 inches 2. 9 inches 3. 11 inches	Uterus high and small, limited mobility, os closed; cervix hard, conical; fluctuating tumour felt through vagina in left side of pelvis	Multilocular cyst (fibro-cystic tumour elastic tumour behind cervix, may be closely connected with uterus, or only jammed down, (possibly *both ovaries may be affected*, and one pressed down by the other
288 ... (cxxxiv.)	Dr. F. Bird	Oct. 28, 1868	45	Widow; 8 children; eldest 20 years, youngest 6 years	In September, 1867, began to increase, with pains in loins and back; more severe since February, 1868, when tumour grew most rapidly; distinct fluctuation; lumbar sounds dull; varicose veins of both legs and thighs; heart pushed upwards to fourth rib; catamenia ceased March, 1868	Tapped 6 times since Feb., 1868; last time Aug. 8; 9½ pints of thick greenish fluid	1. 45 inches 2. 11 inches 3. 11 inches	Uterus free, small (commencing involution); cavity 3 inches; os admits second phalanx; posterior labium hard; cervix short; no tumour in pelvis	Multilocular colloid tumour; ascites

Anæsthetic: Mode of Administration.	Situation and Length of Incision.	Adhesions.	Pedicle.	Hæmorrhage.	Which Ovary Removed.	Method of uniting Wound.	Description of Tumour.	Temperature, Pulse, and Respiration during After-treatment. Highest Range. Day.	Temp.	Pulse.	Resp.	Lowest Range. Day.	Temp.	Pulse.	Resp.	Therapeutics. Medical.	Surgical.	General Result.	Date of Discharge and Subsequent History.
chlo-de of ethy-ne, Dr. nker's ppa-tus	From 1 in. below umbilicus downwards 5 inches	Anterior parietal, easily separated	Short on the right side; small clamp; little traction on uterus.		Right	Deep silk sutures	Multilocular, trabecular cystoid, no fatty degeneration; larger chambers lined with osseous scales; weight 2 lbs. 11 oz., and 14 pints of fluid	1st ...	102·4	116	24	6th ...	98·8	80	20	♏xlv. laudanum	Stitches taken out on 3rd day; clamp removed on 8th day	Recovered	Oct. 31, 1868, 24th day after operation; recovered perfect health
chlo-de of ethy-ne	Midway between umbilicus and symphysis; 5 inches	Extensive all over abdominal wall and to omentum	Short pedicle on right side, hardly an inch from uterus; small clamp, no traction	Scarcely any; 3 shreds of omentum tied and ligatures returned	Right	Silk sutures	Multilocular proliferous cystoid; chambers lined with calcareous scales; intramural apoplexies; weight 31 lbs. 1 oz., and 28 pints of fluid	Eve of operation	100·2		32	5th ...	98·8	90	20	ʒjss. laudanum	Stitches taken out 3rd day; clamp 12th day	Recovered	Nov. 6, 1868, 23rd day after operation; perfectly well
								Eve of 1st day		100									
chlo-de of ethy-ne	2 inches above to 6 in. below umbilicus	Extensive parietal and some omental	Long, narrow; small aluminium clamp, no traction	Very little; several omental vessels tied and ligatures returned	Right	Silk sutures, 4 above and 8 below umbilicus	Thick fibro-cystic tumour, trabecular, very vascular, varicose; superficial hæmorrhage; chambers coated with lymph; weight 9 lbs, 1 oz., and 15 pints fluid	1st ...	100·8	130	28	2nd, morn 8th ...	98·8	98	22	♏xxv. laudanum, citrate of potash, beef-tea enemas, champagne	Stitches removed 3rd day; clamp 11th day	Recovered	Nov. 7, 1868, 23rd day; has been perfectly well since
hlo-de of ethy-ne, ʒiij,	Midway between umbilicus and symphysis pubis; 4 inches	Extensive	A broad pedicle, secured by large clamp; great traction of cæcum; pedicle transfixed with silk, tied, ligatures cut off, and pedicle dropped after removal of clamp	Some oozing from adhesions and peritoneum	Right	Silk sutures	Multilocular cystoid, with partly destroyed septa; fatty degeneration and purulent infiltration of walls; 7 pints of fluid, weight 1 lb. 14 oz.	Eve of 1st day	101·0	160	...	...	...	...	...	♏xxx. laudanum, citrate of potash	...	Died 42 hours after operation	Post-mortem, 8 hours after death:—Slight adhesion of descending colon to abdominal wall. 2 pints of serо-purulent fluid in deepest portion of peritoneal cavity. Uterus healthy. No effusion of lymph round pedicle. Fibrinous clot in right auricle and ventricle of heart
ilori le methy-ie	Midway between umbilicus and symphysis pubis; 5 inches	To omentum and coils of intestine	Both pedicles secured by clamps, but latter removed on account of great traction. Pedicles tied and dropped; ligatures cut off	From mesenteric vessels and one large vessel at left side of pedicle, which was tied	Both ovaries fused together	Silk sutures	Both ovaries degenerated into one large cystoid, partly trabeculated, weighing 6 lb. 3 oz., and containing 17 pints of colloid fluid	Eve of operation	99·8	Imperceptible	44	Three hours after operation	97·0	86	24	♏xv. laudanum	...	Died 23 hours after operation	Post-mortem, 20 hours after death:—3 pints of red serum in peritoneal cavity; the surfaces of separated adhesions were covered with fibrine
								Morn of 1st day...	...										
ro-thyl, s.	Midway between umbilicus and symphysis pubis; 6 inches	Extensive parietal and omental	Thick pedicle; large clamp; slight traction	From abdominal wall; 3 or 4 shreds of omentum tied and cut off	Right. Left atrophied	Silk sutures	Vascular cystoid; fatty degeneration of walls; intramural apoplexies; weight 9 lb. 4 oz., and 24 pints of fluid	Morn of 1st day; eve of 1st day	102·2	120	32	...	...	...	...	♏lv. laudanum, citrate of potash; enema of beef-tea and brandy	...	Died 28 hours after operation	Post-mortem 12 hours after death:—3 pints of reddish-brown serum in pelvis, but no clots; a little recent peritonitis shown by injection and effused lymph, but much more extensive chronic peritonitis; both kidneys congested, their surfaces mottled and granular; no clot in heart; right ventricle very thin, soft, and flabby; lungs very small.

No.	Medical Attendant.	Date of Operation.	Age.	Condition.	Duration and Progress of Disease; Catamenia.	Previous Treatment and Tappings.	Measurements:— 1. At umbilical level. 2. From ensiform cartilage to umbilicus. 3. From umbilicus to symphysis pubis.	Uterus: Situation, Displacements, Mobility, and Length of Cavity.	Diagnosis.
290 ... (cxxxv.)	Dr. Thursfield, Broseley	Nov. 4, 1868	25	Single ...	Since commencement of menstruation (five years ago), grew larger very gradually; slight numbness of right thigh; distinct fluctuation; lumbar sounds clear; last catamenia Oct. 14—20	No treatment ...	1. 37 inches 2. 8 inches 3. 9 inches	Uterus normal, free; os closed; cervix short, soft; no tumour in pelvis.	Ovarian cyst; uterus and pelvis free
295 ... (cxxxvi.)	Dr. Wynn Williams ...	Dec. 14, 1868	43	Single ...	Increased in size during last three years rapidly, but particularly lately; tenderness across umbilicus; lumbar sounds clear; superior and inferior epigastric veins dilated; œdema of both legs; catamenia ceased twelve months ago	Tapped Dec. 6, 1868; 13 pints of colloid fluid	1. 41 inches 2. 7 inches 3. 26 inches	Uterus high; laterally movable; cavity 3 inches; os closed; cervix elongated; no tumour in pelvis, but anterior vaginal wall depressed by cyst	Large multilocular ovarian tumour, some harder portion above a large cyst centrally; uterus small, far back, and free; no parietal adhesions.
296 ... (cxxxvii.)	Dr. E. Phillips	Dec. 21, 1868	46	Married 15 years, 3 children, eldest 13, youngest 9 years, one miscarriage 5 years ago	When aged 16, after having menstruated regularly during 12 months, catamenia ceased; at the same time she noticed a small lump in right iliac region, with tenderness there and in right groin. During the following 12 months the lump gradually enlarged until after reappearance of period, when it nearly disappeared. In her 20th year the lump became again noticeable, grew gradually, and abdomen began to swell. There was at the same time much tenderness in right groin, vaginal fulness, and bearing down of uterus, and weakness of both legs. Pain more violent before and during catamenia, which ceased 8 months ago. Distinct fluctuation; lumbar sounds clear; healthy florid appearance; no emaciation	Twice tapped 8 years ago within 12 months; first, 11 quarts of dark fluid; second, 15 quarts	1. 37 inches 2. 8 inches 3. 6 inches	Uterus free, slightly enlarged; cavity 3 inches; os patulous, cervix elongated, hard. No tumour in pelvis. A small uneven substance, size of small walnut (left ovary?) felt through vagina and rectum somewhat to left side in recto-uterine fold	Ovarian cyst; favourable case for ovariotomy
299 ... (cxxxviii.)	Mr. Meade, Bradford ...	Jan. 13, 1869	25	Single ...	Six years ago began to enlarge very gradually, with much pain in left groin, sacral region, occasional sickness; very rapidly during last 6 months; distinct fluctuation; lumbar sounds clear; very anæmic; carotid murmurs; dulness all over left lung, and indistinct respiration; catamenia regular, much pain at commencement, and rather free	Tapped Dec. 2, 1868; 14 pints of colloid fluid	1. 36 inches 2. 7 inches 3. 8 inches	Prolapse of uterus and vagina	Ovarian cyst

OPERATION.								PROGRESS AFTER OPERATION.											
								Temperature, Pulse, and Respiration during After-treatment.								Therapeutics.			
								Highest Range.				Lowest Range.							
Anæsthetic: Mode of Administration.	Situation and Length of Incision.	Adhesions.	Pedicle.	Hæmorrhage.	Which Ovary Removed.	Method of uniting Wound.	Description of Tumour.	Day.	Temp.	Pulse.	Resp.	Day.	Temp.	Pulse.	Resp.	Medical.	Surgical.	General Result.	Date of Discharge and Subsequent History.
loro-ethyl, ij.	Mid-way between umbilicus and symphysis pubis; 3 to 4 inches	None ...	Long pedicle; small clamp; no traction, rather tendency to prolapse	Scarcely any	Right	Silk sutures	Simple, thin-walled ovarian cyst, containing 21 pints of clear fluid	Afternoon of 4th day Eve before death	103·2 101·8	 172	 32	Morn after operation	98·8	104	24	3j. of landanum, citrate of potash, enema of beef-tea and brandy, champagne	Drainage tube into lower edge of wound (afternoon of 5th day; and venesection, ʒxss.	Died 6th day after operation	Post-mortem, 6 hours after death:—Abdomen distended by inflation of intestines; below pedicle, between it and bladder, was a cavity, imperfectly circumscribed by lymph, containing about an ounce of serо-purulent fluid; pedicle surrounded by coils of adherent and inflated intestines; left ovary in state of acute congestion, almost amounting to apoplexy
oro-ethyl, ijss.	From umbilicus nearly to pubes	Firm adhesions anteriorly around umbilicus	Short broad pedicle; middle-sized clamp; slight traction on broad ligament, but none on uterus	Free bleeding, and oozing of serum from edges of incision and separated adhesions; 3-4 ligatures	Right	Silk sutures	Hard, thick-walled, fibro-cystic tumour, a portion trabeculated, weighing 8 lb. 4½ oz., and containing 14 pints of thick colloid fluid	Eve of operation Morn of 1st day	100·4	106 20		Eve of 2nd day, 5th, 6th, and following days	97·6	82 16	Had been for several years in habit of taking large doses of opium, and continued so after operation, having laudanum concealed in her bed which she took besides the laudanum given	Stitches removed on 4th, 5th, and 6th days; clamp on 10th day; bowels on 18th day, after repeated enemas	Recovered	Left Hospital Jan. 4, 1869, on 21st day after operation
ro-thyl,	Mid-way between umbilicus and symphysis pubis; 5 inches	Firm parietal and omental	No true pedicle; right ovary gone, all connexion between it and uterus having separated. Two bands of Fallopian tube and round ligament were divided. Vessels secured by ligature. Ends cut off short and returned.	A piece of bleeding omentum was tied and cut off	Right	Silk sutures	A unilocular, thick-walled, scantily vascularised cyst, fatty decay of walls, containing 6 pints of grumous fluid and shreds of lymph; cavity lined with lymph; weight three-quarters of a pound	Eve of 1st day	103·8	136	56	After operation	97·4	84	36	ʒij. landanum, citrate of potash, turpentine enemas	Venesection evening of 1st day of ʒix. of blood, which remained fluid. Opened wound afternoon of 2nd day, and removed a small quantity of red serum with catheter	Died 56 hours after operation	Post-mortem 12 hours after death.—At surface of abdominal wall, where the adhesions had been separated, a thin layer of dark blood-clot. Some redness of the coils of intestine near wound and slight recent adhesions, but no sign of important peritonitis. A few ounces of dark serum in pelvis in front and behind uterus. Uterus and left ovary healthy; right ovary absent. Line of separation from Fallopian tube and round ligament distinct. The ligature could not be found.
o-byl, i	Mid-way between umbilicus and symphysis pubis; 5 inches	None ...	Base of tumour and Fallopian tube secured by largest cautery clamp, and actual cautery applied; the vessels, which bled after opening clamp, tied.	...	Right	Silk sutures	Multilocular proliferous thin-walled, brittle colloid-cystoid, very vascular, weight 1 lb. 3 oz., and 22 pints of fluid	Eve of 11th day Morn of 6th day	102·6 101·0	... 128	... 24	18th day	99·0	94	...	ʒiij. and mlx. laudanum, sulphate of quinine, and spirit. chlor. c.	Stitches removed 4th day; punctured through vagina; removed 19 oz. of very fœtid fluid from behind and left side of uterus	Recovered	Left Hospital Feb. 6, 1869, 25 days after operation.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 3, 1870.

SECESSIONS FROM THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

It is with no surprise we learn that Dr. Paget, Dr. Stokes, Dr. Acland, Dr. Rumsey, and Dr. Embleton, the five members of the General Medical Council who supported Dr. Acland's amendment to the Report of the Direct Representation Committee of the British Medical Association, at the recent meeting at Newcastle-upon-Tyne, have resigned their seats on the Council of the Association. A letter from these gentlemen announcing the fact appeared in the *Times* of September 1, and the document seems to us of so considerable importance, not only to the British Medical Association, but also to the cause of Medical Reform, that we shall make it the subject of a few observations.

In the first paragraph of their letter the writers state that they have found themselves compelled to resign their seats on the Council of the British Medical Association, and they then proceed to state the cause which has made their resignation compulsory. They write:—

"As members of the General Council of Medical Education and Registration we had advocated the main provisions of the Amended Medical Bill introduced into the House of Lords by the Lord President of the Privy Council—provisions which, in our judgment, were of the utmost importance to the public weal.

"The Bill, it is believed, was withdrawn in the House of Commons by Mr. Forster in consequence of the course pursued by the Direct Representation Committee of the Association. That course was subsequently approved by a vote of the Association at Newcastle.

"We, therefore, could not, in justice to ourselves or to the members of the Association, continue any longer to belong to its executive."

In the first of these sentences we can cordially agree with the writers of the letter. Undoubtedly the main provisions of the Amended Medical Bill introduced into the House of Lords by the Lord President of the Privy Council, were of the utmost importance to the public weal. The original Bill in its main outlines was a good one, and was worthy of support. But in this letter, as in the speeches delivered by the supporters of Dr. Acland's amendment at Newcastle, the fact is completely ignored that the Bill which left the House of Lords was an utterly different Bill from that which the Lord President introduced. It was the miserable tinkering the Bill underwent at the hands of the Lord President himself, on the suggestion of interested Medical authorities, which destroyed its vitality, and left it without supporters in the House of Commons. The writers incline to the belief that it was the course pursued by the Direct Representation Committee of the Association which induced or compelled Mr. Forster to withdraw the Bill. On this point we have repeatedly stated that the opposition of that Committee was only one cause of the failure of the Bill, which certainly would not have survived the opposition which was gathering round it from various other quarters. Nevertheless, it is probably true that the *coup de grace* was given by the Direct Representation Committee; and it is undoubtedly a fact that, at the Newcastle meeting of the Association, the action of the Committee was not merely approved, but loudly applauded. We quite think with the five gentlemen, that, under these circumstances, as leading members of the General Medical Council, which has recorded its opinion against direct representation, they ought not to retain their seats in the Council of the British Medical Association. But here a question presents itself—how far has it been wise for those who pull the wires of the British Medical Association to pledge that important body to so doubtful a policy as that of direct representation of the Profession in the General Medical Council? To our minds it has always appeared a most impolitic proceeding. Whatever the opinion may have been of the comparatively small number of its members who assembled at Newcastle, we know that there is a strong opinion entertained by those of the Profession who are best able to judge of the matter against direct representation. The arguments against it have never been answered, and have been so frequently stated, that we do not care to repeat them. But even supposing that a minority only of the members of the Association disbelieve in the efficacy of this vaunted panacea for all the evils of Medicine, is it wise for the majority to make the whole Association the exponent and mouthpiece of their opinions? The British Medical Association is a great body of Medical men, and their object should be the general advance of Medical science, and improvement in the status of the Profession—not by pledging the Association to the shibboleth of a faction, but by working for wise Medical legislation, on broad principles recognised by all who have the welfare of the Profession at heart.

The writers, in conclusion, express their opinion that "the question of the permanent construction of a Medical Council of Education is one of grave importance." They hold it to be intimately connected with other questions and interests entirely extra-Professional, and they think that it cannot, therefore, be properly dealt with by any hasty or one-sided legislation.

The general tenour of these remarks will not be gainsaid. But, at the same time, it is our duty to assert that, whatever extra-Professional interests may be involved in the construction of a Medical Council of Education, the Medical Profession has undoubtedly the first interest in the matter. That the present construction of the Medical Council might be improved no one will deny; but improvement may be attained without subjecting the Medical Profession to the harrass, expense, and excitement of ever-recurring contested elections, and without introducing into the British Medical Association elements of discord, the effects of which on the future of the Association it does not seem difficult to foretell.

ON THE TREATMENT OF OPEN WOUNDS.

The daily papers give evidence that there will be in no long time an inundation from the seat of war of experiences, real or imaginary, in the treatment of wounds, particularly of the gunshot kind, for in this war bayonet wounds seem to be rare. It may not be amiss, therefore, to say something of what we have ourselves seen of the treatment of wounds by personal inspection of every considerable Hospital in the United Kingdom. Gunshot wounds are comparatively rare in civil practice, but the principles which apply to those more commonly encountered stand in good stead here also. In its characters a gunshot wound is composite; it partakes of the nature of a

punctured wound, being ordinarily deep out of proportion to its superficial extent, whilst, at the same time, the bruising of its edges approximates it to an ordinary contused wound. We shall, in the mean time, disregard the two primary indications for treatment—the removal of the offending body, if present and possible, and the arrest of bleeding—and turn our attention solely to the healing of the sore occasioned by the missile, or the operative procedure it has necessitated.

In a sound constitution, and under favourable circumstances, the normal course of a wound is towards healing; but it unfortunately too frequently happens in military Surgery that the surroundings do not foster this progress, and that complications are no rare occurrences. Wherever men are collected together in great numbers, and especially when they are all suffering from open sores, these wounds tend to assume an unhealthy action. The same sometimes occurs, apparently, as far as we can judge, spontaneously—that is to say, with no unusual crowding. No specific action is necessary to originate the unhealthy process, but, once set a-going, it rapidly extends from one man to another, and may speedily decimate a ward. In the latter case the mode of infection is still easy to understand. Portions of the organism may be transplanted with success, as has been recently emphatically shown by the planting of islands of skin in large sores—as was long ago shown in a more imperfect way by certain plastic operations and experiments on the lower animals. When a new nose is formed, the portion of substance used is allowed to maintain for a time a communication with its original surroundings, till it has fairly taken root in its new quarters. In the transplantation of skin this is found to be unnecessary. Still, in dealing with a portion of skin, we are dealing with a complex structure, and vitality is the more readily endangered in proportion to the degree of development. But when we come to deal with the exceedingly minute portions of living matter in process of reproduction on the surface of a wound, we have to deal with a far simpler organisation—one in which autonomy is nearly complete, and is consequently capable of a more prolonged individual existence, and of more successful transplantation to a new soil. The tendency of all such bodies to propagate their kind is well known; and in this tendency we have probably the source of that infection commonly attributed to those mysterious germs about which so much is talked and so little is known. Were these germs as universally diffused as some would have us believe, a Surgeon would be guilty of neither more nor less than wilful murder who exposed an open and unprotected sore to their influence; and yet we have seen some surprisingly good results with absolutely no treatment and no covering, and that, too, in what some would call the pestilential wards of the Edinburgh Surgical Hospital.

As a protection against the evil results of collecting together a multitude of men with open sores, we have two great agents —free ventilation and cleanliness. In the present war we are somewhat surprised to hear so little of tent Hospitals; we read of this palace and that private house being given up to the wounded, yet it is undoubted that during the Austro-Prussian war the best results were obtained under canvas. The period of the year is also so far favourable to the plan, although the recent severe rains experienced would somewhat militate against it. Certainly, men who have been accustomed to the exposure of the recent combatants would not be very liable to pneumonia or such like diseases under canvass. We may, however, expect to hear more on this subject later.

If ventilation be the first, cleanliness is certainly the second requisite for the keeping of wounds healthy; and for this purpose, although simple water quite suffices, it is common nowadays to add to it a varying quantity of some disinfectant. But direct application is the great thing; no sponge should be used; the fluid should be transferred directly from its vessel to the wound; and if any degree of force be required for its proper cleansing, this may be acquired by raising the vessel above the level of the patient, or by means of Higginson's or some other syringe.

As has been already said, a gunshot wound partakes of the nature of a contusion, inasmuch as the adjacent parts are bruised and pressed aside during the passage of the bullet. As a consequence, it follows that death of a certain proportion of these must result, the amount to be determined by a variety of circumstances. In ordinary practice, where such destruction is seen to be inevitable, it may be hastened by the application of an agent like chloride of zinc, or strong carbolic acid; and when there is a risk of leaving behind any rootlets, whence a new growth may spring, as after the removal of a cancer, such a plan is most valuable, but unfortunately in gunshot wounds it is not often available. It is uncertain how far the tissues penetrated have been destroyed, and the application of any corroding agent to a long sinus, when there are no means of regulating its action, is attended with danger. Under such circumstances, the other plan of allowing the half dead tissues to disintegrate of their own accord, and to sweep them away by some agent which will, at the same time, act as a preventive to septic infection, is what must be aimed at.

The substances generally employed as antiseptics are the permanganate of potass, carbolic or phenic acid, and sulphurous acid; but each of these acts in a different way. The permanganate is a powerful oxidising agent, whilst sulphurous acid acts as a deoxidiser, and carbolic acid seems to be useful chiefly in arresting change of any kind; but all are inimical to the separate existence of those minute particles which, conveyed from an unhealthy to a healthy wound, tend to convert the latter into the former. To prevent this should be our prime endeavour; but it is of much greater importance to avoid contact, mediate or immediate, between two sores than to use disinfectants by the gallon. The dressings should be thrown into a vessel and removed from the ward the moment they are taken from the wound; sponges should be prohibited; the dressings should be handled with carefully cleaned forceps, and should be of such a nature that their destruction would entail no loss. Tow or charpie is better than lint or cotton-wool, the last being worst of all; and the hands should be well washed before proceeding from one case to another. Carbolic acid and permanganate of potass are all very well in their way; but at best they are substitutes for, or adjuncts to, what, after all, are the true antiseptics—*ventilation, cleanliness, care.*

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. VI.

Nitrite of amyl, $C_{10}H_{11}O,NO_3$, was first discovered by M. Balard, and was more fully investigated in 1859 by F. Guthrie, who especially noticed that it possessed the property of causing flushing of the face, throbbing of the carotids, and acceleration of the heart's action; and he suggested that it might be found of value as a resuscitative in drowning, suffocation, and prolonged fainting (*Journal of the Chemical Society*, vol. xi., p. 245, 1859). The substance attracted very little attention, however, till it was taken up by Dr. B. W. Richardson, who, in the year 1863, at the meeting of the British Association for the Advancement of Science, held at Newcastle, read a report on "The Physiological Properties of the Nitrite of Amyl." He described it as an amber-coloured fluid, smelling and tasting like the essence of ripe pears, and showed that when inhaled it produced an immediate action on the heart, increasing the action of that organ more powerfully than any other known agent. If a little of the nitrite was dropped on bibulous paper, and its vapour inhaled through the nostrils, the action of the heart was instantly excited, the cutaneous surface became red, and the face was deeply flushed, assuming a bright crimson colour. Carried further, the nitrite excited the breathing, and produced a breathlessness like that caused by sharp running or rowing. It did not cause anæsthesia. It could then, Dr. Richardson

said, be considered (like chloroform twenty years previously) as a physiological curiosity; and, looking at its intensity of action, he could not at that time recommend its use in Medicine, but he intended to subject its properties to further inquiry. (*Medical Times and Gazette*, vol. ii. p. 334, 1863.)

This intention he so far carried out that next year (in 1864) he contribnted to the meeting of the Association, at Bath, a second report on the "Physiological Action of the Nitrite of Amyl," carrying the knowledge of its properties and action further than he had been able to in his first report. Through an elaborate series of experiments, he had found that it is absorbed by the body, however it may be introduced, whether by the skin, the stomach, the lungs, or by inoculation; that after its absorption its effects are immediately seen on the heart and circulation; that there is at first violent action of the heart, with dilatation of the capillaries, followed by diminished, but not extinguished, power of the heart and contraction of the extreme vessels; and that, as an excitant of vascular action, it might be considered as the most powerful agent yet discovered. He had not had any opportunity of trying the nitrite of amyl as a remedy in the treatment of disease, but he suggested that it would probably be serviceable in cases of sudden failure of the heart, and that by its paralysing actien on the voluntary muscles it might enable a patient to live through an acute attack of tetanus, time being gained for the system to become relieved of the primary malady (*Medical Times and Gazette*, vol. ii., p. 335, 1864). In 1867 Dr. J. Lauder Brunton communicated to the *Lancet* (vol. i., p. 97, 1867) a paper "On the Use of the Nitrite of Amyl in Angina Pectoris," having been led to try it by seeing some experiments made with it on animals by Dr. Arthur Gamgee; and at the meeting of the Clinical Society of London, of February 11, 1870, Dr. Burdon Sanderson read a communication from Dr. Lauder Brunton on the action of the nitrite, and on its effects in a case of angina pectoris (*Medical Times and Gazette*, vol. i., p. 320, 1870). Dr. Brunton had made some physiological researches, in Professor Ludwig's laboratory, to determine the action of the drug on the circulation, using rabbits for the purpose, and had found "(1) That it diminished the arterial pressure; (2) that this effect is shown as distinctly in animals in which the vaso-motor nerves have been paralysed by section of the spinal cord in the cervical region, as in the natural condition; (3) that the nitrite does not diminish the work done by the heart in a given time, although it increases the frequency of its contractions; and, consequently, that (4) it does not exercise its influence on the nervous system, but on the contractile walls of the blood-vessels, diminishing the arterial pressure by diminishing the resistance to the circulation." The patient whose case Dr. Brunton reported had been for four months under the care of Professor Bennett, in the clinical wards of the Edinburgh Infirmary. He had disease of the heart, the result of acute rheumatism, of which he had had seven attacks; and, during the whole time of his stay in Hospital, he suffered from severe paroxysms of præcordial agony, the pain extending from the chest to the right side of the neck and right arm. The attacks were not relieved by aconite, digitalis, or stimulants, but small bleedings gave the patient considerable relief. Six weeks after admission, treatment by inhalation of the nitrite of amyl was adopted, a few drops being used at a time. The pain ceased immediately the characteristic symptoms of the physiological action of the medicine—*i.e.*, the flushing of the countenance and the amplification of the pulse—manifested themselves. Sphygmographic tracings of the pulse showed "(1) That the arterial expansion is much diminished, and the arterial tension correspondingly increased, during the paroxysm of angina; and (2), that, under the influence of nitrite of amyl, the arterial tension is diminished, and the expansive movement increased." This case was the same, we imagine, as that reported by Dr. Brunton in his paper of 1867, before mentioned. The attack of pain came on every night, and lasted from an hour to an hour and a half. On pouring from five to ten drops of the nitrite on a cloth, and giving it to the patient to inhale, the physiological action was produced in from thirty to sixty seconds, and, simultaneously with the flushing of the face, the pain completely disappeared, not to return till the usual time next night. In his first paper Dr. Brunton says, "in almost all the other cases in which I have given it, as well as in those in which it has been tried by my friends, the pain has at once completely disappeared. In cases of aneurism, where the pain was constant, the inhalation of the nitrite gave no relief, but where it was spasmodic, or subject to occasional exacerbations, it either completely removed or greatly relieved it." He had tried it in a case of epilepsy, but without obtaining any marked result; and he had found it produce relief in some kinds of headache.

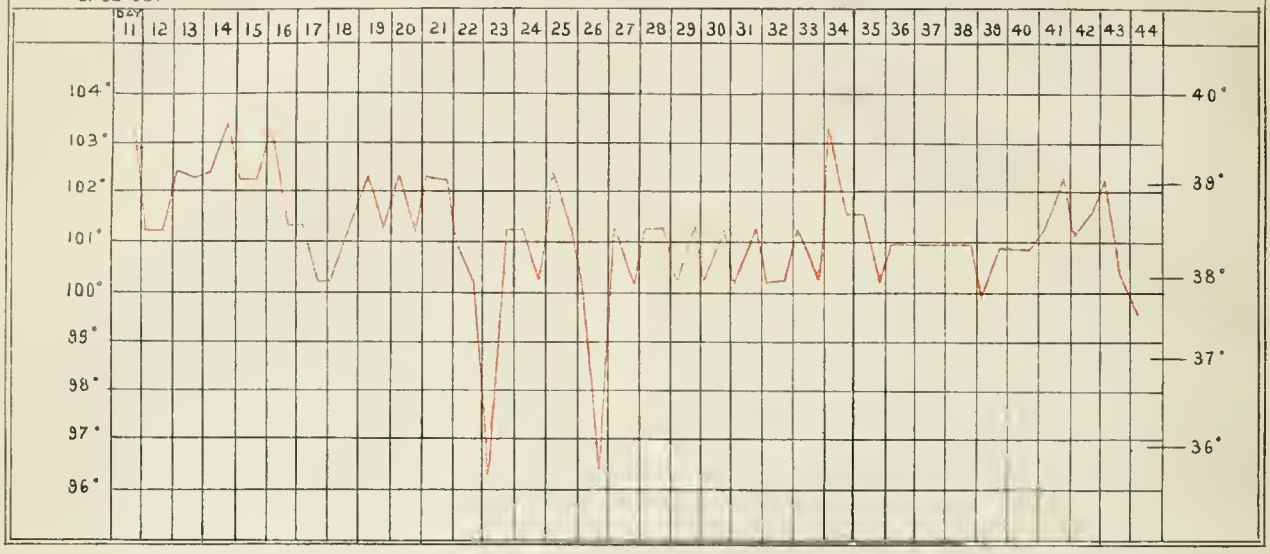
During the discussion which followed the reading of this communication to the Clinical Society, Dr. Anstie also reported a case of angina pectoris in which the nitrite had given great relief. The patient was a gentleman, aged about 50, of highly-nervous temperament, who had for twenty years been a sufferer from spasmodic asthma, and for the last four or five years been subject to severe and frequently-recurring attacks of angina pectoris. In December, 1869, it was determined to try the nitrite, "and on the occurrence of the next anginal spasm he took one long and powerful inspiration through one nostril from a half-ounce bottle of the drug. After a pause of a few seconds, the characteristic flushing of the face, and sense of fulness in the head, were induced, and the patient instantly passed from agony into a state of perfect calm repose." The same happy result had been obtained on all the subsequent occasions on which the drug had been inhaled; and the patient had been able to entirely dispense with the necessity of taking, as he had previously done, large and frequent doses of ether, and had been able to greatly reduce his allowance of stimulants. He had also been much less troubled with asthma, and had obtained far more natural sleep at nights. Dr. Farquhair also stated that he had, in India, seen a gentleman suffering from paroxysmal attacks of colic, which came on at night, and were terribly severe. For a time the bromide of potassium gave relief; then the nitrite of amyl was tried, "when, as the patient expressed it, he was transferred from agony to heaven in a moment. The disease partially returned when the drug was discontinued." In another similar case the nitrite also did good.

Several other instances of the use of the nitrite in angina pectoris have also been recorded. In the *Glasgow Medical Journal*, August, 1869, Dr. Leishmann reports a case in which its inhalation gave relief. In the *Edinburgh Medical Journal*, July, 1870, p. 45, *et seq*, Dr. J. Haddon, of Eccles, reports three cases in which it had been used. (1.) A man, aged 40, with disease of the heart; suffered from well-marked angina pectoris, the paroxysms generally coming on at night. For two years he had been in the habit of taking a few sniffs from a bottle of the drug, which invariably had the effect of almost instantly dispelling the paroxysm. His confidence in it was so great that he was never without his bottle. (2 and 3.) Each of these patients had heart disease, with loud blowing murmurs, and constant præcordial pain, with occasional exacerbations and dyspnœa. The nitrite was given, in small doses, during an exacerbation, but in both patients produced alarming symptoms, relieved by stimulants and free ventilation, and did not benefit the angina. In one patient there was no flushing of the face, in the other the face and neck were greatly congested.

Lastly, in our own pages, a month ago (*Medical Times and Gazette*, August 6, p. 154), there is a report of a severe case of angina relieved by nitrite of amyl. The patient, who was under the care of Dr. H. Thompson, in the Middlesex Hospital, was a woman, aged 28. She had cardiac disease, the result of rheumatic fever, and came into Hospital on account of an

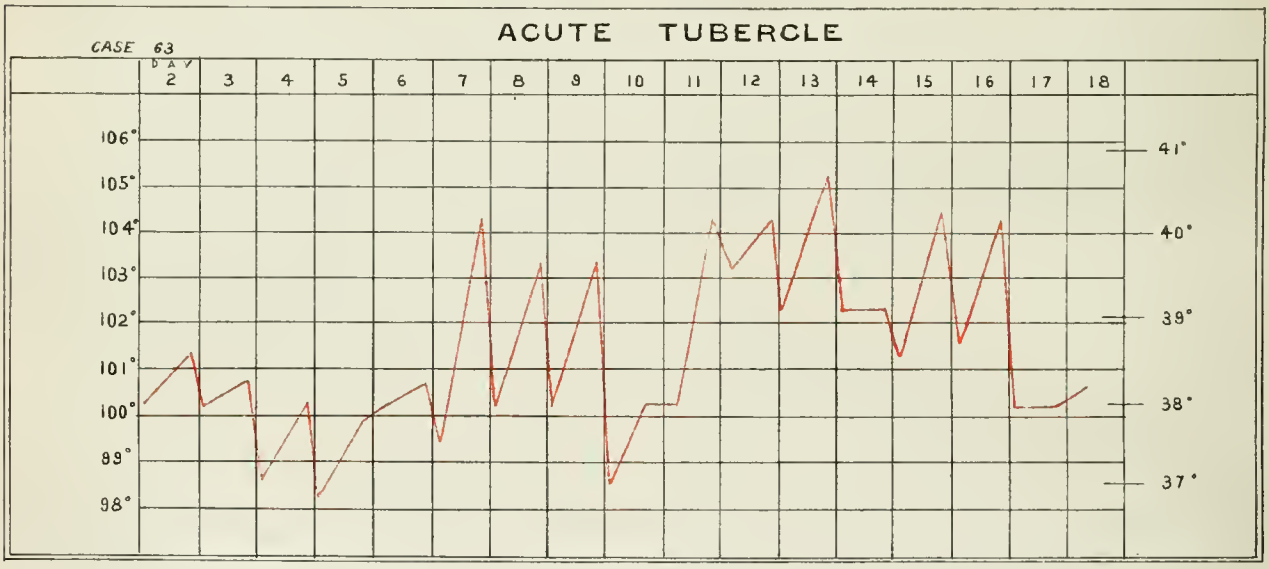
CASE 62.

ACUTE TUBERCLE, SIMULATING BRONCHITIS



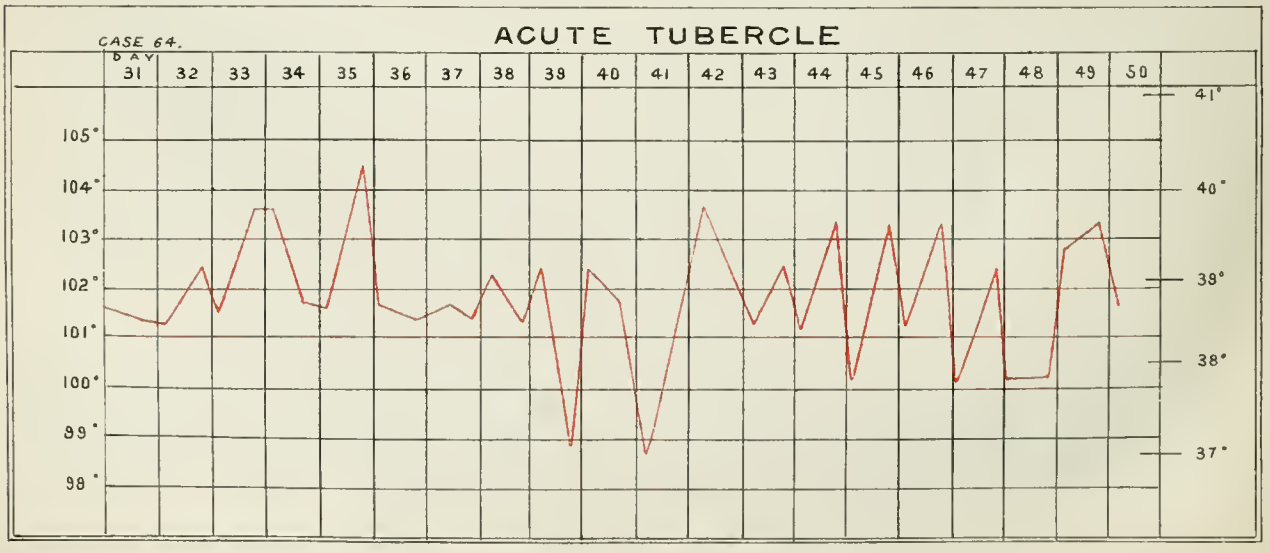
CASE 63

ACUTE TUBERCLE



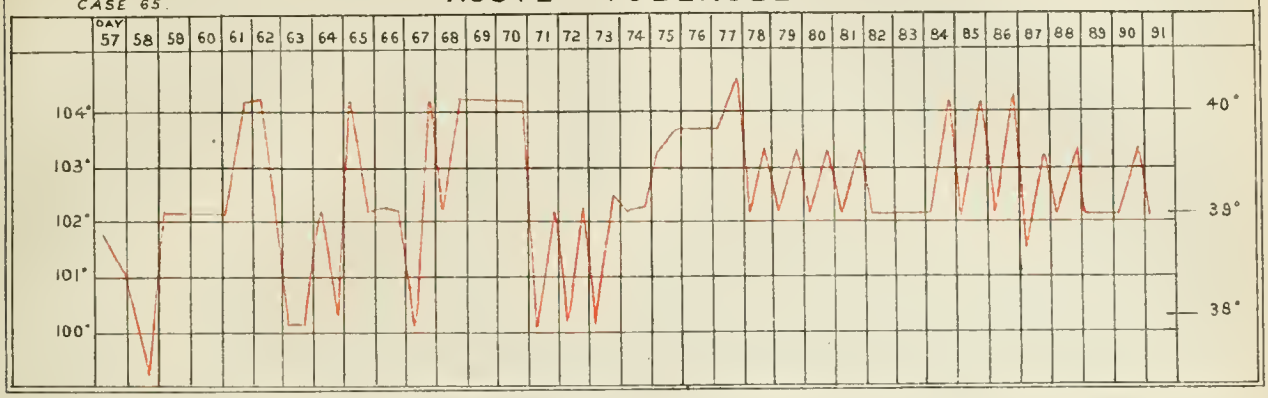
CASE 64.

ACUTE TUBERCLE



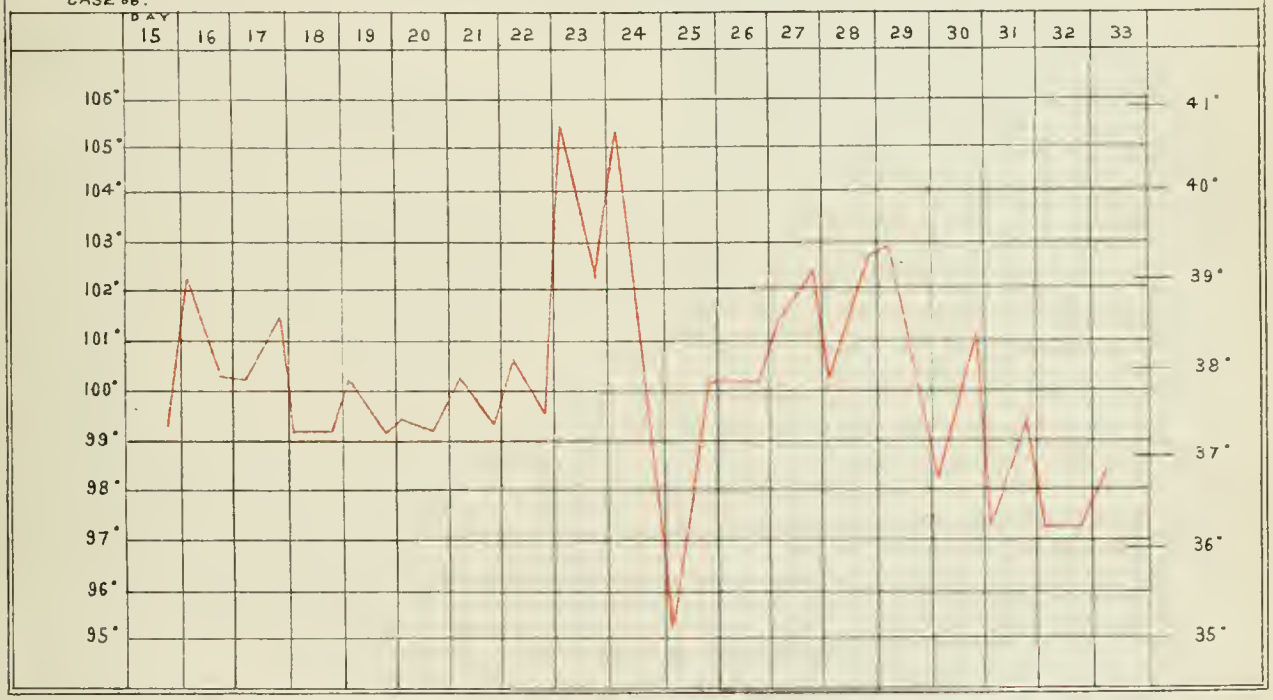
CASE 65.

ACUTE TUBERCLE



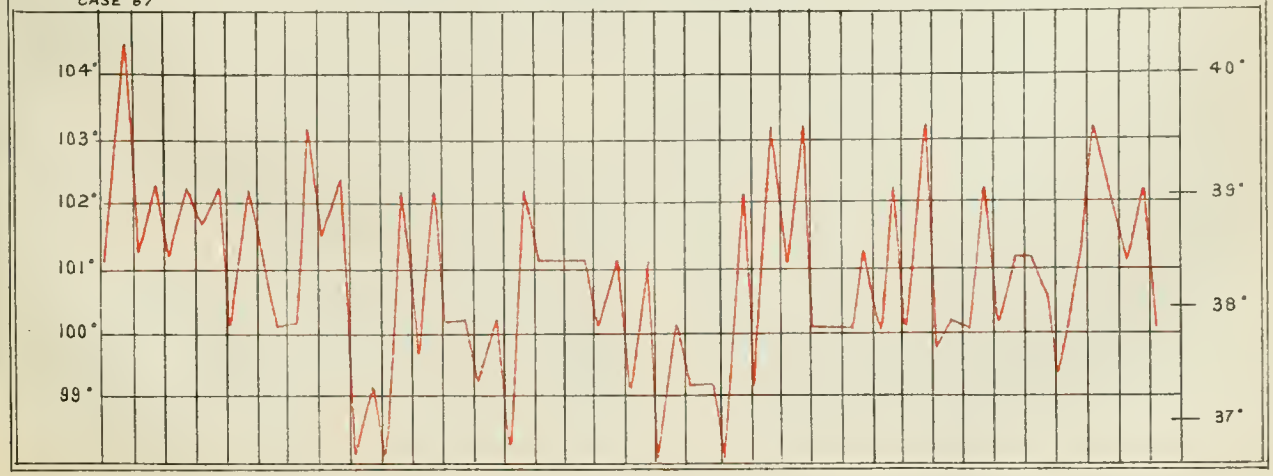
CASE 66.

ACUTE TUBERCLE



CASE 67

VERY RAPID PHTHISIS



attack of angina pectoris. During her two months' stay in the Hospital she had frequent attacks of angina, "occurring at first almost every day, but latterly at intervals of nearly a week. While labouring under an attack, the typical symptoms of angina pectoris were exceedingly well-marked, more especially the dread of death and the radiating pain, which frequently extended to the head and face, and down both arms and legs." At first the paroxysms were all treated with the hypodermic injection of morphia, beginning with one-sixth of a grain, and gradually increasing the dose up to one-fourth. The attack was uniformly cut short in about five minutes after the injection, but as sickness, vomiting, and headache often followed, Dr. Thompson resorted to the use of the nitrite of amyl, allowing the patient to inhale it from a bottle applied to one nostril. "After the inhalation had been cautiously continued for about ten seconds, the face became somewhat flushed, the veins slightly prominent, the pulse slower and fuller, and the patient, after drawing a long breath, declared herself quite free of pain. The same train of symptoms happened every time the amyl was inhaled. It never failed to check a paroxysm; it produced no unpleasant after effects; it did not lose its power from repeated use. On the contrary, the occurrence of the paroxysms diminished during the time the patient was under this plan of treatment."

These cases are quite enough to show that in the nitrite of amyl we have an agent of remarkable power and rapidity of action against some forms of severe suffering and pain. As yet, we know but little, indeed, of its powers for good, or of the contra-indications, or the limits, to its employment; but enough certainly is known to justify and encourage further research into its properties, and a more extended, cautious, use of it. One instance, and, so far as we know, only one, has been recorded of its employment in tetanus. Mr. Foster, of Huntingdon, reports (*Lancet*, April 9, 1870) a case of traumatic tetanus in a man, aged 52. He had stiffness of the jaws, with great general *malaise*, on December 22; on the 25th he had violent and frequent spasms, the body "being rolled up like a rigid ball." Five drops of nitrite of amyl were put on a pocket-handkerchief and inhaled, with immediate effect in lessening the spasms. On each return of spasms the drug was assiduously administered, and by this means "the spasms were held in check till the ninth day, when the patient had inhaled an ounce" of the drug. The patient was "thoroughly supplied with nutriments, some stimulants, tonics, and aperients, and was convalescent at the end of a month." Mr. Foster remarks that during thirty-four years of practice he had seen seven cases of traumatic tetanus, all fatal till he tried the nitrite of amyl in this case.

Dr. Anstie's case, mentioned above, will no doubt lead to trials of the amyl in severe attacks of spasmodic asthma, and in other disorders of a like nature. It is noteworthy and highly satisfactory that the disordered conditions against which the drug has been found so serviceable had been pointed out before it was used; and the published cases are sufficient guide as to the directions in which further trials of its powers may be made.

THE WEEK.

TOPICS OF THE DAY.

Our readers will recollect that the present Board of the Guardians of the Poor of St. Pancras came, a short time back, to the determination that they would completely alter the existing plan of outdoor Medical relief in the parish, by making a clean sweep of the present outdoor Medical officers, and appointing in their place district Medical officers, who were to be paid some two or three hundred a year, and were to devote the whole of their time to the care of the poor, entering into an engagement not to attempt private practice. However well this plan might look at first sight as a reform, it was at least manifest that at the outset it would inflict considerable hardship upon the existing Medical officers, against whom no complaint had been made, and who had reasonably regarded their tenure of office as only terminable with their inability to perform the duties incumbent on them. In addition to this, the plan was open to the grave objection that the poor of St. Pancras would be placed under the care of a series of inexperienced Medical men, replacing each other in quick succession. It could not be supposed that the inadequate salary offered by the guardians would be held sufficient to satisfy the wants of any but a junior, and no junior of any ability or enterprise would be long content with it. The existing outdoor staff have therefore appealed to the Poor-law Board against the decision of the guardians, and with the effect they desired. The guardians have received two letters from the Assistant-Secretary of the Poor-law Board; the first treats of the project of the guardians. The Assistant-Secretary writes:—

"The Board are not insensible that there are certain advantages attending the plan proposed by the guardians of appointing district Medical officers who shall devote their whole time to the duties of their office without engaging in private practice. At the same time it must be borne in mind that there are other advantages in the existing system which would not be obtained by the plan proposed by the guardians. The Board observe that the guardians contemplate that, if the Medical officers were required to devote the whole of their time to the duties, Medical relief would be rendered more efficient than at present. But the Board are desirous of reminding the guardians that, when the dispensary system is in full action, improved facilities will be given for the accomplishment of these objects; and the Board are therefore of opinion that if the present staff were increased from six to eight Medical officers, as originally contemplated, the requirements of the outdoor sick poor would be fully satisfied. The Board, in dealing with this question, cannot conceal from themselves that the proposal of the guardians will have the effect of displacing the whole or the greater portion of the present Medical staff, against none of whom does any complaint appear to have been established. The Board desire me to add that they fully appreciate the motives which have actuated the guardians in their present proposal; but, at the same time, it appears to the Board that the advantages of a change are not sufficient to justify so serious a disturbance of the existing Medical arrangements, and they request, therefore, it may be reconsidered by the guardians."

The second letter clinches the former, for it directs that, from and after September 29 next, the appointment of all the Medical officers shall be permanent, or only terminable by resignation, proved insanity, or legal disqualification. A similar order has been issued to other metropolitan and provincial large parishes. The order in the case of St. Pancras was signed by the President of the Poor-law Board, the Home-Secretary, and the Chancellor of the Exchequer. We congratulate the Medical officers of St. Pancras on the success with which they have asserted their claims. The very questionable benefits to be obtained by the scheme of the guardians were certainly outweighed by its flagrant injustice.

Another post-mortem case in a police-court! We really hope that the authorities of Guy's Hospital and other large London Hospitals, where, rightly, no opportunity of pathological teaching and investigation is omitted, will put a stop to these scandals by adopting some such plan as we recommended a few weeks ago. It cannot be right that post-mortem examinations should be performed when the friends of the deceased formally refuse their sanction. On the other hand, it cannot be right that the pathological lessons to be learned by the inspection of deceased Hospital patients should be lost to science and humanity. If the friends of a patient were informed on his admission that an examination, in case of death, would be performed, as a matter of course, unless a protest against it be lodged within a certain time after death, there would be no room for complaint. We believe that in the majority of cases, if proper representations

were made to the friends, there would be no objection made; but if, after the case has been temperately stated, the near relations of a deceased person protest against an examination, we think that even the claims of science must give way. In the long run, it will not be to the benefit of either Medicine or the Medical Profession to be placed in antagonism with a deep, however unreasoning, popular instinct. But from our experience of a Hospital where no post-mortem is permitted without the sanction of relatives, we know that in by far the greater number of cases that sanction can be obtained. At the same time, we feel it our duty to remark upon the intemperate language which is said to have been used by Mr. Benson, the sitting magistrate at Southwark, in the case which has suggested our remarks. We hardly expect to hear a magistrate in a police-court indulge in such an hyperbole as that of "committing the whole Medical Profession" for trial. Mr. Benson is reported to have said—

"The complainant in the previous case had withdrawn it because he could not take the case to a superior court. He had spent £8 or £9, and if the applicant was to take the case through, it would cost him between £50 and £60. Mr. Benson said he would commit Dr. Morrison or the whole of the Medical Profession if the applicant would bring proof that he would prosecute at the trial."

It is added that the applicant, who said he was a working man, and had no money, left the court evidently much disappointed.

Messrs. Henry Slade, William Bennett Dalby, M.D., and A. Irwin, have been promoted to the rank of staff Surgeon in the Royal Navy, before the completion of the qualifying time, in consideration of meritorious services.

Dr. Lankester has recently lectured the people of Jersey on their sanitary condition. He told them that their death-rate was 22½ per 1000—equal to that of London; and that the mortality of St. Helier's rose to 26 per 1000. He also told them that the greater part of their water-supply, which is from wells, is impure and unfit for use.

The enormous sums which the English people are placing at the disposal of the National Society for the Aid of the Sick and Wounded, are, we are glad to hear, in part, at least, to be devoted to a definite object—the establishment and working of a Hospital at Bingen, on the Rhine, which is to be organised and superintended by Dr. Thudichum, acting under the direction of Mr. Simon, the Medical Officer of the Privy Council. We are informed that the Prussian Government has undertaken to find the building, and to supply two hundred rations a day to the Hospital; the German Aid Society will furnish the Hospital fittings—200 beds and bedding and twenty tents; and our National Society undertakes to provide the Medical staff, and to meet all other expenses. The Medical staff will, we are glad to say, be paid at the rate of £1 per day. This plan, if carried into effect, will, we cannot doubt, be an excellent one. From what is known of the gentlemen whom we have named, the Profession will rest assured that the Hospital to be opened at Bingen will not disgrace the Medical science of this country. At the same time, under the direction of the Medical officer of the Privy Council, we may expect that most valuable information as to the Surgery of the war will be accumulated. The nature of the wounds made by the new instruments of destruction, and the best method of treatment, are points on which but little information has yet reached us. A M.B. Lond., writing to the *Times* from Aix la Chapelle, where he has been allowed to visit the Military Hospitals, gives a description of the wound inflicted by the chassepot bullet. He says:—

"To the chassepot bullet the merit is conceded of extreme force. In a large majority of cases it goes quite through, and, like other small-arm projectiles, takes a course strangely devious. Being a small bullet, it rarely breaks a bone, but travels round it. The long and tortuous channels through the flesh a small-arm bullet makes for itself are something curious to see. When a man is hit while skirmishing, *ventre-à-terre*, the length of these bullet burrows may be easily imagined. It is not at all unusual to see them extend from hip to knee, or even lower."

According to this gentleman, the German army Surgeons are all believers in the germ theory and the use of carbolic acid. The treatment of the long sinuous channel made by the chassepot bullet is to flush it with permanganate solution from a long flexible tube furnished with a jet of hard material, the tube being attached to a tin can filled with the solution, which is raised to give the necessary force. When the wound is thus cleansed, charpie, sodden in ten parts of olive oil to one of carbolic acid, is applied over the orifice or inserted. The results are said to be excellent as far as the absence of all effluvium or tendency to Hospital gangrene are concerned. On the other hand, it seems that carbolic acid was not used in dressing the wounded after the battle of Woerth.

We hear on good authority that there has been, and is, a large amount of choleraic and dysenteric diarrhœa amongst the German troops. Bowel complaints have been rife amongst the armies in Champagne.

We notice that, at the coming meeting of the British Association at Liverpool, Professor Tyndall is advertised to read a paper on the Scientific Uses of Imagination—a subject which recalls Butler's satire of the "Elephant in the Moon." Believers as we are in scientific progress in general, and in the progress of the natural sciences in particular, we cannot but acknowledge that if all our books on geology, anthropology, the origin of species—aye, and we might come nearer home still—were carefully winnowed from all that has been supplied by the imagination, their bulk—to say nothing of their interest—would be greatly decreased. We are not, however, denying that the imagination has its uses in science, and we shall wait with some curiosity to hear what Professor Tyndall's view of its uses may be. That the Professor is quite capable of using his own powers of imagination in scientific discussion, Medical readers of his recent writings on the germ theory do not require to be informed. Professor Huxley's opening address as President is looked forward to with great expectation. It will be at least original and characteristic. But even Professor Huxley's eloquence, and the unveiling of Mr. Gladstone's statue—though what the latter can have to do with the objects of the Association it would require Professor Tyndall's imagination to conceive—will scarce suffice to attract the usual amount of attention to the Liverpool meeting. All eyes are now turned to the Continent. The advance of the Prussian army on Paris is in grim contrast to the advance of science, however necessary the latter has been to the former.

BRITISH MILITARY SURGEONS FOR THE SEAT OF WAR.

We are glad to hear that permission has been at last obtained for two Medical officers of our army to visit officially the French field Hospitals for the purpose of reporting to our Government upon the Medical and Surgical equipment, the sanitary arrangements, and Medical administration of the French army. The present position of the several portions of that army will render the task one of peculiar difficulty, but will proportionately increase the value of a report founded upon the complete observation and accurate estimate of the circumstances which at the present moment are testing to the utmost all the resources of the French nation. A campaign with a retiring or beleaguered army is calculated to afford lessons even more valuable than those which might be learned with an advancing and triumphant force. The elasticity of the Medical organisation and the fertility of resource on the part of individual Medical officers would, under such unfortunate circumstances, have fuller opportunity for display and development than might otherwise be afforded them. It is to be hoped that the Medical administration of the French army may now at last be purged as by fire from the obstructive influences under which it has so long laboured from the system

of the military "intendance générale." The British Medical officers selected for the important duty of observing and reporting upon the Medical arrangements of the French army are Deputy Inspector-General of Hospitals C. A. Gordon, M.D., C.B., principal Medical officer at Portsmouth; and Surgeon-Major Wyatt, of the 1st Battalion Coldstream Guards. We understand that no permission has yet been obtained for the despatch of a similar commission to the Prussian field Hospitals, but Professor Parkes has, we believe, obtained consent to his visiting them as a private individual at his own expense; and in case of permission being obtained, we hear that Staff Surgeon de Chaumont and Assistant-Surgeon Count Wollowiez are likely to proceed to the Prussian army. It is also stated that the chairman of the International Aid Society has applied to the Secretary of State for War for forty military Surgeons, to be despatched as may be required to either army.

Since writing the above, we understand that Dr. C. A. Gordon, C.B., started, in company with a Queen's messenger, on the evening of Thursday, the 1st inst., for Dover, *en route* to Paris, where he will present himself to Lord Lyons as delegated by our Government to report upon the French field Hospitals and Medical arrangements. Surgeon-Major Wyatt being on leave of absence, had not returned in time to accompany Dr. Gordon or receive his instructions and credentials to the French Government.

INTERNATIONAL GOOD BREEDING.

Private advices tell us of the extreme bitterness of feeling which is rising up amongst the French at the idea that their sufferings and present humiliation should be, to their "good neighbours," the means of gratifying an impertinent curiosity. Perhaps the worst specimen of the worst taste, and the most flagrant example of the abuse of a good institution, is found in the account of the proceedings of three English members of Parliament, which has been published in the *Times*, under the title, "Three Knights Errant." Three English gentlemen have bound the Geneva Brassard on their arm, and, under its protection, follow the Prussian army, *living at free quarters among the French*, as if they were employed in tending the sick and wounded. But, all the while, their real object is to indulge their morbid curiosity, and, under shelter of their badge, to witness the capture of Paris, and then come home. "We three," says one of these discreet and considerate writers, "expect to be in Paris in a few days if all is well" (*i.e.*, if the Prussians take Paris), "and to return thence to England. Our services under the cross are expressly confined to the field. They will not be without risk, but will at any rate in some degree *legitimise our presence (!!). Hospital work I do not think I am fit for*, so when the fight is over I shall come home. Every one says it is quite impossible the campaign can last much longer; meanwhile we are comfortably quartered," etc. Now, in the name of fairness and good sense, we ask—if three English members of Parliament can be found to act in this way, which is wrong, and to publish their doings, which is an indiscretion amounting to a crime, how can we wonder that the French distrust even our proffers of aid, and look upon stray Englishmen as spies? The offerings so laudably sent by us through the International Society have their chief value as pledges of amity and good feeling. The French, who have subscribed forty millions to their loan in a month, cannot care for a mere fifty thousand pounds, munificent though the gift be, save as an index of good feeling. To revert to published letters. How do the French like the picture of an English princess seen in her boudoir, with the *spolia opima*—the sword, helmet, and cuirass of a slaughtered French soldier, and the colour of a French regiment—as ornaments on her table. Such things are fitting in the wife of a German prince, but most unbefitting the daughter of an English house; and, if they exist, should at least not be talked about.

CHOLERA AMONG BRITISH TROOPS IN INDIA.

We regret to hear that an outbreak of cholera of considerable severity has occurred in H.M.'s 107th Regiment at Hazarabagh. The first cases in the Regiment were those of two children in the latter end of June, and both terminated fatally. About the same time the disease appeared in the gaol and among the native population. On July 8, two men of the 107th Regiment fell victims to it, and on the 9th two more. The company to which the men belonged was moved into camp on the 10th, and the usual steps taken to prevent the spread of the disease. Several cases of choleraic diarrhœa having occurred in the barracks, three other companies were sent out to camp on the 19th. The outbreak of cholera which occurred in the wing of the 76th Regiment at Thayeturyo, British Burmah, during April, was not of very long duration, but the general health of the men has not yet been re-established.

BRITISH MEDICAL BENEVOLENT FUND.

By the death of Sir James Clark, Bart., the British Medical Benevolent Fund has lost, not only it President, but one of its warmest friends and earliest supporters. Upon the announcement of his death the committee expressed to the family through the present baronet, its deep regret and sympathy in their bereavement. Another loss has been sustained by the Society in the death of Mrs. Robinson, of Bolton-le-Moors, one of the oldest of its lady collectors. Mrs. Robinson continued to the last to take the warmest interest in the affairs of the fund, and only a few days before her death requested that a five-pound note might be sent as her *last* donation. The applications for assistance to the fund continue to be very numerous, and many of the cases are, as usual, of a most distressing character. At the last two meetings the large sum of £250 has been distributed in grants to about thirty different recipients, many of them being widows with families of young children. J. A. Locking, Esq., of Hull, and F. Thorne, Esq., Leamington, have been elected honorary local secretaries; and we are requested to state that the committee will gladly avail itself of the services of any gentleman as such in places not already represented, or of any lady as collector, if they will put themselves in communication with Dr. Felce, or Dr. Thorne Thorne, the honorary secretaries in London. Among the donations received since our last notice are—Dr. Rogers, Exeter, £10; C. A. Newnham, Esq., hon. local secretary, Wolverhampton, £5 5s.; the late Mrs. Robinson, lady collector, Bolton (additional), £5; Dr. Shann, York, £5; Dr. G. S. Jenks, Vice-President British Medical Association, Bath (additional), £10; Dr. Burrows, F.R.S. (additional), £10; G. D. Pollock, Esq. (additional), £5; Bath and Bristol Branch, British Medical Association, per Dr. Steele (additional), £3 3s.

ACTION FOR ALLEGED MALPRAXIS.

At the Liverpool assizes, before Mr. Justice Lush and a special jury, on Monday last, was tried the case of Duckworth *v.* Stott. The plaintiff is a tailor, living near Accrington, and he sought to recover from the defendant, a Surgeon in the same neighbourhood, compensation for injuries sustained by a son of plaintiff, in consequence of the alleged unskilful treatment of the defendant. In July, 1868, the son, 3 years old, accidentally cut his throat with a piece of glass. A few days afterwards the plaintiff was called in and treated the child for the wound. Eventually the child lost one of its fingers, and had now little use of its arm. Medical evidence was adduced to prove that the plaintiff's son had been most carefully and properly treated by the defendant. The judge, in directing the jury, pointed out that a Medical Practitioner was not answerable at law for an error of judgment; he was only answerable for a culpable want of the care and attention which the nature of a case would suggest to have been requisite. A verdict was found for the defendant. We are not aware that in this case any "error of judgment" was proved.

FEVER IN BRISTOL.

Bristol has fallen from her high estate. She has ceased to be the cynosure of sanitary eyes, for fever rages in her midst. From being one of the least salubrious of cities, Bristol was raised by the exertions of her health officer and staff to an enviable pre-eminence in the Registrar-General's returns. Whether their efforts have been relaxed we know not, but it is certain that fever, both typhoid and scarlatina, is now excessively rife, both in Bristol and Clifton.

RELAPSING FEVER AT LIVERPOOL.

The continued spread of relapsing fever among the poor of Liverpool has rendered necessary the provision of still further accommodation than that already made. Of the 400 beds in the Kirkdale Industrial School, 394 were filled on Saturday last. At a meeting of the Workhouse Committee, held on the previous Thursday, it was determined that a sufficient number of sheds should be immediately erected near the above schools to afford accommodation, with the other institutions, for 800 patients. The total number under treatment on Saturday, August 27, was 679, being an increase of 111 on the previous Saturday's number.

THE LIVERPOOL WORKHOUSE.

At the last meeting of the Committee of the Liverpool Board of Guardians, the vestry clerk drew the attention of the Board to a statement which had appeared in one of our contemporaries respecting the treatment of the sick poor in the workhouse. We merely mention the fact to remark how easily "sensational" articles are concocted, particularly when the statements are in the main incorrect, as they proved to be in this instance.

ROYAL VICTORIA HOSPITAL, NETLEY.

The name of the newly-appointed governor and commandant of this Hospital is Brevet Lieutenant-Colonel C. S. S. E. Gordon, and not "Maclean," as stated by a clerical error in our last number. It remains to be seen—by inquiry in the House of Commons we trust, when the next army estimates are discussed—what may be the peculiar nature of the duties at the military Hospital at Netley to render necessary the presence at that establishment of a military commandant and assistant-commandant, while the naval Hospital at Haslar can be efficiently and economically administered by the principal Medical officer.

THE ALEXANDER MEMORIAL FUND.

The subject for the next prize essay will be "The Nature and Varieties of Destructive Lung Disease, included under the head of Pulmonary Consumption, as seen among soldiers, and the hygienic conditions under which they occur. To be illustrated, as far as possible, by cases drawn from the personal observation of the author." Essays to be sent in to the President, Alexander Memorial Fund Committee, Army Medical Department, 6, Whitehall-yard, on or before December 31, 1872. The competition to be limited to executive Medical officers of the Army on full-pay. The essays to be signed with a brief motto, and to be accompanied by a sealed envelope similarly superscribed, and containing the name and address of the author. The value of the prize is £50, and a gold medal of £10.

LOCK HOSPITALS IN BURMAH.

We are informed by a correspondent that the Lock Hospital system, which has been in operation at Thayeturyo for some time past, has caused a remarkable decrease of venereal diseases among the British troops at that station during the first quarter of the present year. At Rangoon, where there is as yet no Lock Hospital, the contrast in the comparatively high rate of admissions from all forms of venereal affections is very striking.

WINTER QUARTERS AT CAIRO.

The pleasure-seeking portion of the community finds itself cut off this autumn from its favourite resorts in the Alps and Pyrenees; for although there is, no doubt, a possibility that the French and German railways may be safely traversed, there is certainly some chance that they may not. Apart from war, there are the chances of civil commotion and of hostility to foreigners, to which it would be in the highest degree imprudent to expose women and children. Till peace is established again, then (and we express our hope that this will speedily happen, without any permanent humiliation of our near neighbour, the great French nation), seekers after pleasure should remain at home. Seekers after health unluckily have no chance. Spite of all that can be said of Bournemouth, Ventnor, and Torquay, no one who has ever felt the blessed Mediterranean sunshine in the winter can doubt but that it has healing virtues unattainable under the "harmless sunbeams" of these isles. The Riviera health-resorts are better than anything at home, and from personal experience we should say that it is as well to stop at Hyères as to go further. But then, in the first place, the Riviera must be reached through France; and, in the next place, there are the cold winds from the snow-capped mountains, which form the back ground; and if it be worth the invalid's while to seek a warm winter climate, he may as well do the thing thoroughly, and go on at once to Cairo, which is more accessible now than Nice was thirty years ago. It seems that the present best way of reaching Cairo is by steam to Alexandria from Southampton or from Liverpool. The former route costs £30, the latter £16 16s. On arriving at Cairo, the traveller will meet with all the luxuries of an English home, thanks to Mrs. James Appleton, the widow of a Medical Practitioner, who has organised a complete winter sanitarium there. Mrs. Appleton, if we are informed aright, has taken an entire wing of the new Oriental Hotel, which has been fitted up for the reception of invalids, who will thus have the double advantage at choice of the privacy of their own quarters, and the privilege of mixing with the world of travellers and tourists who visit the hotel. Between Cairo and Madeira, most hands will, we think, be held up for Cairo.

MURDER.

The following, taken from the *Ipswich Journal* of August 13, is a report of the trial, at the last Suffolk assizes, of Jacob Ling, for the murder of his paramour, through an attempt to procure abortion, which, as Mr. Baron Channell directed the jury, would constitute the crime of murder.

"The jury, having been absent from court for upwards of an hour, considering their verdict, said through their foreman—

"We find the prisoner guilty of an attempt to procure abortion.

"His Lordship: The prisoner at the bar is charged with murder.

"Foreman: We cannot find him guilty of murder.

"His Lordship: I must get you to retire again. I thought I had made clear the law. I did not go particularly into the matter, because it was admitted on both sides that if he intended feloniously to procure abortion, and death ensued, the prisoner would be guilty of murder.

"Foreman: We are not satisfied that he meant to commit murder.

"His Lordship: It must be your verdict, and not mine. It is no verdict at all. If he intended feloniously to procure abortion, and the attempt ended in death, then the prisoner is guilty of wilful murder.

"A juryman: We believe he caused the death, but not with the intention of committing wilful murder.

"His Lordship: I tell you that is no part of your inquiry. You cannot find the prisoner guilty if you entertain fair and reasonable doubt whether the death was the result of natural causes or the attempt to procure abortion. You must retire again.

"The jury accordingly retired, and, after an absence of six minutes, returned with a verdict of Not guilty."

This very unsatisfactory state of our law results from the rule that "if one intends to do another felony, and *undesignedly* kills a man, this is also murder." (I. Hale's "Pleas of the Crown;" IV. Blackstone's "Commentary," 201.) Juries in such cases prefer a complete miscarriage of justice to convicting a man of murder "undesigned," with "*malice by fiction*," and thus putting on an equal footing the crime of "undesigned" murder with that for which the "Denham" and the "Chelsea" murderers recently suffered.

DEATH CERTIFICATES.

A CASE of considerable importance with respect to certificates of death has lately occurred near Lynn, Norfolk. A woman, who had dreadfully neglected a child six months old, and obtained no proper Medical attendance for it, applied after its death for a certificate, to Mr. Hodgson, a Surgeon at Long Sutton.

"The woman, whose name was Hudson," says Mr. Hodgson, in his evidence before the coroner, "applied to me on Saturday morning, August 6. She said she wanted a certificate to bury the child. I said, 'What child?' She replied, 'Why, sir, the child that your assistant saw last week.' I asked her on what day. She named a day, I think Friday. I referred to my book, and I found an entry, but I never saw the deceased in my life. I certified because my *locum tenens* had, as I had been informed, seen the child. I gave the certificate in consequence of the statements made by the old woman. I had known the old woman five or six years. I had attended Fakes's other child in 1865, and I had to sue him in the county court. I understand Fakes's wife was Hudson's daughter. I will not undertake to say that the old woman told me the child my assistant was alleged to have seen died at Tydd Gote. I never asked her.

"The coroner asked the witness how he dared sign such a document, for not only had he certified his attendance upon deceased, but that the death took place at Tydd Gote, and that the name was Thos. Fakenham—not Fakes.

"The witness said, in explanation, that his *locum tenens* had, he believed, seen the child, which had been brought to him by his grandmother; and that, before he gave the certificate, he referred to the book of his *locum tenens* (who had now left him), and [illegible] that he found there that he had attended a child named Hudson, which was the name of the grandmother of the deceased child; and that the grandmother came to him, as he was going out in a hurry, and said the child must be buried; and therefore, to oblige her, he gave the certificate."

Unquestionably Mr. Hodgson committed a great mistake in giving the certificate under the circumstances. No Medical Practitioner is justified in signing a document such as a certificate of death unless he is satisfied, as far as possible, of the truth of that to which he certifies. The Registration Act is supposed by some to impose duties upon the Medical Practitioner for which he should be remunerated, but its provisions are merely permissive, and the Practitioner may refuse certainly to give any certificate. But we question whether, all things considered, the Act is not beneficial to the Profession. If it does not altogether prevent illegal practice, it has a tendency to check it. At all events, it has received the support of the Profession generally, and its provisions should be strictly adhered to. In the case before us the coroner's jury brought in a verdict of "manslaughter" against both the parents of the child, and this, be it remembered, after a certificate had been given by a duly qualified Surgeon that the deceased had died whilst under his care from hooping-cough! Surely enough has been said to show the importance of not signing certificates of death either hastily or untruly.

THE EPIDEMIC OF SMALL-POX IN PARIS.

THE number of deaths from this cause has undergone a sensible diminution, having amounted only to 99 for the week ending August 27. Other causes of death were: Scarlatina, 15; measles, 11; typhoid, 54; erysipelas, 2; bronchitis, 33; pneumonia, 40; diarrhœa, 61; dysentery, 13; cholera, 10; croup and diphtheria, 5; puerperal affections, 5; other causes, 772. Total, 1120.

FROM ABROAD.—THE FRENCH SANITARY PROVISIONS FOR THE WAR—M. DIDAY ON HYPODERMIC INJECTION IN SYPHILIS—PHENIC ACID AS A DISINFECTANT.

THE French Medical journals contain numerous communications which exhibit the patriotic spirit of our *confrères* in the best light. Not content with offering their gratuitous services wherever they may be wanted, many have signified their intention of disposing of beds for the sick and wounded. M. Guérin, as we have already noticed, has offered twenty, and many others are making the same generous disposition, according to, and almost beyond, their means, in these terrible times. Still, there seems to be a hitch somewhere in sending the reserve on to the theatre of war. While only a few hundred wounded have been received at Paris since the commencement of hostilities, the number of Medical men and students stationed there are far beyond its wants. On the other hand, there seems to be no doubt that at the seat of war there is much more assistance required than is now present there. The French journals, both lay and Medical, however, stoutly maintain that the Prussians have dealt most unfairly with the military and international ambulances, throwing every possible impediment in their way, and even opposing their action by main force. Misstatement or exaggeration must surely have place here; but a sufficient number of instances are particularised to admit, as they call for, explanation. It is suggested that reserves should be formed at the *quartier général*, and sent thence to wherever required. The *intendance*, which has now so much thrown upon its hands, is evidently not equal to the emergency. One admirable work undertaken by the *Société Internationale* is the formation of an exact register of the name of every wounded person, as well as the names and addresses of relatives or friends to whom letters may be sent on his behalf. It also ascertains whether the patient wishes to go to his family when convalescent, promising him assistance to that end when poor. The Society is also causing similar visits to be paid to every wounded person in France, and has placed itself in communication with the Berlin branch, in order that the two bodies may interchange their registers, and after a while enable all families to be made aware of the condition of their wounded members.

At one of the recent meetings of the Lyons Medical Society, M. Diday detailed the results of a trial of the hypodermic treatment of syphilis, which he has made in 12 cases. Although so few in number, these experiments, conducted by the hand of such a master in all that relates to syphilis, are more important than a far greater number would be, detailed by persons of no authority. He employed the syringe and solution recommended by Liégeois, this last consisting of distilled water, 45 grammes; corrosive sublimate, glycerine, of each 10 centigrammes. Two, and sometimes three, injections were practised daily, the mean quantity of sublimate introduced each day amounting to 7 or 8 milligrammes. The back is the preferable region for the operation, as the pain is complained of less there; but when the patients inject the solution for themselves, the sides of the chest or the anterior and external parts of the thigh should be selected, alternating these regions, so that the punctures do not succeed each other too rapidly or approach each other too closely. M. Diday felt very well disposed towards the remedy, as he believes that in it we have an opportunity of bringing the specific into action in a far more direct manner than in ordinary modes of treatment. As cases for trial, he selected patients who were somewhat severely affected, and in whom the disease had resisted the ordinary measures. After supplying the chief details of the twelve cases, M. Diday observes—

"These results, incoherent and even contradictory as they seem at first sight, cause me, I must admit, great embarrassment in pronouncing an opinion on this new method. In fact, there is no occasion to pronounce any positive opinion on a remedy which has so recently made its appearance. At first, one is struck and seduced by the promptitude of some of the cures

which it effects, only to fall again into a state of doubt on observing it powerless in other analogous morbid conditions, or even in such as are less serious in appearance. We must not allow this doubt, without further information, to pass into discouragement. Deeper researches, instituted while varying the formulæ, and only injecting every two or three days, in order to prolong the time necessary for the cure, and perhaps by adding the employment of other agents, etc., will, it is to be hoped, lead to more constant results and less vague conclusions concerning the degree of power of this mode of treatment and its special adaptation to certain forms of syphilis. Above all things, we ought, in this channel of absorption as in others, not limit ourselves to the injection of a mercurial preparation. As is so well known since the able demonstrations of our legislator in therapeutics, Ricord, we should, according to periods or *age* of syphilis indicated by this or that lesion, administer mercury to one patient, iodine to another, and a combination to a third. Beyond this rule there is no safety."

M. Diday believes that great advantage is derivable from the injections in the squamous form of syphilides, which is sufficient to prevent our neglecting it as a remedy. He agrees with M. Liégeois and others that it is not only useless, but mischievous (by consecutive ulceration of the punctures) in the ulcerative forms of syphilis. A very great advantage of the hypodermic method is, that it saves the digestive organs, for under it none of those affections of the stomach and intestines, that so often interfere with treatment, occur. In none of M. Diday's patients was the slightest mercurial affection of the mouth produced.

At the last sitting of the Académie de Médecine, M. Devergie called attention to the subject of disinfectants, and especially to phenic or carbolic acid. After adverting to the history of this substance, he observed that the committee of the Conseil de Salubrité of the Seine, after having made numerous experiments on its action on various bodies in different degrees of putrefaction, came to the conclusion that it was the disinfecting agent to be preferred. M. Devergie has himself obtained the complete disinfection of the Morgue by continuous irrigation with a fluid containing one litre of phenic acid to 4000 litres of water. Professor Würtz has also employed it with advantage, diluted with twenty-five times its weight of glycerine, as a means of injecting and preserving bodies for dissection. Hospital wards may be kept disinfected by watering them twice a day with phenic acid diluted with three times its weight of water. The powder may also be strewed about the floors like sand, or placed in plates under the beds. Without excluding the chlorides, which are also good disinfecting agents, phenic acid is preferable, as it evaporates more slowly, and its effect is longer maintained. M. Gnérin wished to learn from the chemists in what manner the disinfecting action of phenic acid is brought about. M. Payen replied that it acted quite differently to chlorine. Directly, it neither destroyed or modified odours already disengaged in the atmosphere, but it prevents their development by destroying the ferments which cause them. Great numbers of experiments have been performed in relation to this matter, crystallised phenic acid, which is soluble in the proportion of 8 per cent. in water, being employed. If very small quantities of such solution be added to starch, the mouldiness which otherwise always occurs does not take place. Chlorine, on the other hand, acts on odoriferous matter, such as sulphuretted hydrogen, etc., and is therefore a direct disinfectant. They are two entirely different agents, each having its special application. M. Chauffard observed that, since the observations made in 1868 had shown that phenic acid taken internally was of great benefit in treating *charbon* in cattle, it has been employed in various contagious diseases. He himself has used it freely during the last year in small-pox, giving doses as large as from 1 to 2 grammes without inconvenience, and that for eight or ten days in succession. While not considering it a panacea in small-pox, he had derived excellent results from its employment; and one curious circumstance observed was that, when given exclusively internally, it entirely dissipated that nauseous special odour which patients suffering under severe small-pox give forth. Of the truth of the observation all around the patients were convinced.

PORT WINE OLD IN THE WOOD.

Samples of 1834, 1840, 1847, 1858, *and* 1863 *Vintages from Messrs. Gilbey.*

The readers of the *Medical Times and Gazette* are aware of the importance which we attach to good wine in the treatment of disease. Most of the essays on this subject which we have presented to our readers have been in praise of that class of wines which may be called pure or "light"—that is, of the natural alcoholic strength derived from the fermentation of the grape-juice without any extra addition of spirit. At the time we began our lucubrations these wines were very imperfectly understood by the public; they were often considered cold, thin sour, and unfit for the use of the dwellers in a wet and foggy climate. All this prejudice has now vanished, and we pique ourselves on the idea that our own efforts assisted to place these wines aright in the popular estimation as the wines for general daily use; as strengthening, refreshing, and appetising beverages, suited especially to the young and robust, and calculated to bring no after mischief in the shape of gout or dyspepsia.

But it is undeniable that the other class of wines, the *vins de liqueur*, as the French call them, have special and most important uses. There are many persons who demand alcoholic drinks more potent than natural wine. Their stomach rebels and has a fit of water-brash when claret is taken; 'tis the same with acids of all sorts, and even with the finest fruit. We heard of a Scottish lady the other day visiting a friend at Paris, and exciting astonishment not unmixed with commiseration when she refused the finest figs and peaches, and declared "she didna care for any fruit except boiled turnips." 'Tis pity, but 'tis true; some stomachs from inherent feebleness, some from long habit, must have a drink more potent than natural wine. Again, as an experienced country wine merchant once told us, there are many clay districts of England which must be drained before the better classes can lose that instinctive feeling which teaches them that port wine is a protection against fog and damp. Not to mention the aged, to whom a glass of strong wine gives a congenial fillip, we must take into account the very large number of cases in which it is to alcohol in some shape or other that the Medical Practitioner looks to extricate his patients from the depths of exhaustion. Look at the woman who has just given birth to a child and is sinking from violent hæmorrhage; look at the robust man who has suffered a gunshot wound; at the patient who has undergone a serious Surgical operation; at the poor creature in the third week of typhoid fever, drained by diarrhœa; at the child battling with malignant scarlatina; and say if it be not cruel and wicked nonsense to deny the power of that great gift, alcohol, to snatch patients from the jaws of death. It is quite certain that a man who feels himself sinking will not swallow greedily, time after time, a liquid from which he gets no help.

Well, then, in all these cases alcohol is a necessity; but yet alcohol, not *pure and simple*, but blended with some of those mysterious essences and flavours, which seem not only to make it gratify the palate, but add intensely to its exhilarating virtues. Of such essences, some are found in old Cognac, some in the "*whaskey*," or "whuskey"—(we despair of representing the real pronunciation of this word in ordinary type,—there is a mingled asperity and unction in the true Scottish pronunciation unattainable to Southern tongues)—which whiskey or whuskey our Scottish friend above mentioned prefers to the finest Chambertin, as she does turnips to peaches. But still more are these congenial ethers to be found in the *vins de liqueur*, in which the strength of spirits and flavour and nutriment of wine are to be found combined, and the effects to be obtained of each on the heart, the brain, and the palate.

We have been led to make the above remarks, and to endeavour to define the exact status which these strengthened wines should have in the Physician's estimation, by the circumstance that five samples of port wine have been forwarded to our office by the Messrs. Gilbey, which we think well deserving the attention of Practitioners. We are informed that they are samples of a great quantity of wine, of the vintages above specified, which have been left in the wood till quite a recent period, and have been allowed to rest in the *eaves* of their native

country. By this means, as we are informed, old wine costs much less than it would have done had it been imported bottled, and put into store in the wine merchants' cellars in this country; certainly, if we are not misinformed, the wines before us are extremely moderate in price. Moreover, the double process of spoliation and of development, the parting with superfluous body, and the evolution of fine flavours which wine undergoes as it grows old, is very different in cask from what it is in bottle. Hence the wines before us have characters of their own which sufficiently mark them off from mere vulgar port. These characters, especially of the older varieties, are—great vinosity, an ethereal flavour resembling Madeira; rich, and in the newer samples decidedly sweet, subluscious taste, yet perfectly clean; not sickly; *lightness*, so far as this term implies absence of all that is *loard*, heavy, and indigestible; and vivacity—that is, the reverse of flatness; soft; not hot or burning; colour very light. We subjoin the memorandum we jotted down in the order in which each was handed to us by our secretary:—

Port 1847.—Fine tawney colour, not much deeper than Madeira. Taste strong, rich, subluscious,(a) clean; fine vinous flavour; no heat. Sp. gr., 1004·4; alcoholic strength about 35.(b)

Port 1840.—Colour and qualities similar to the preceding; hardly so sweet; fine flavour. Sp. gr., 1003·2; alcoholic strength about 33·7.

Port 1834.—Colour of Madeira; fine, strong, clean, vinous flavour; very soft; drier than preceding; might be taken for Madeira, yet with decided port flavour; a very fine wine. Sp. gr., 1004; alcoholic strength about 33·7.

Port 1858.—Light port colour; very rich taste; strong and vinous; not hot. Sp. gr., 1011·25; alcoholic strength about 34·1.

Port 1863.—A sweet, rich port wine, not cloying nor heavy. Sp. gr., 1012·2; alcoholic strength about 33·2.

The difference in the specific gravity of the newer and of the older specimens will not escape notice. We may add that we have administered these wines to the sick with benefit, and that some of our colleagues who have taken a fair dose have complained of no headache afterwards. These old wines, especially the 1834, would be most valuable in any case in which life was menaced by exhausting disease.

THE ROYAL VICTORIA HOSPITAL, NETLEY.

At a time when wars and rumours of wars are all pervading, it may not seem amiss to give some account of our principal military Hospital, that on which we now depend for the reception of almost all our military invalids, and on which, also, in the first instance at least, we should have to depend in the event of war breaking out between this country and some other. The Hospital consists of a single long line of building, a quarter of a mile in length, facing Southampton Water, distant about four miles from the town, and divided into two wings by an administrative block, which is partly occupied by the Army Medical School and the quarters requisite for the candidates for Medical service. The situation is good, as far as means of transport are concerned; for the invalids who come from abroad are landed from their ships at a pier belonging to the Hospital, and projecting out into the water immediately in front of the main entrance, whilst railway communication with any part of the kingdom is attained by a branch line extending to Southampton and ending directly in rear of the Hospital.

The building, a noble one in many respects, is constructed on what is now considered the obsolete corridor system. These corridors, extending without interruption from one end to the other of the building, are fearfully draughty, and, if pleasantly cool in summer, are excessively cold in winter. They overlook Southampton Water at a considerable elevation, so that there is nothing to break the force of the winds blowing from the south-west up Channel. The wards all open on to these corridors by means of glass doors, whilst directly opposite to these are the windows, which consequently look to the north-east, and, if a through draught be thus easily attainable, it is sometimes colder than is quite desirable. The beds are arranged in rows at right angles to the corridors, as the length of the ward corresponds to the depth of the building. Each ward contains nine beds, but one or two larger ones at the extremities of the building contain as many as fourteen. The building itself consists of three floors, of which the ground floor is rarely occupied, the first floor is devoted to Medical, and the second to Surgical cases; but, as it is rare for there to be a sufficient number of patients to fill both wings of the building, those requiring treatment are retained in its northern division, whilst convalescents and any very bad cases requiring much room are relegated to the southern half.

The defects of the corridor system are tolerably patent here. Their length seems as if intended for the propagation of infection from one end of the building to the other; the modern plan is to interrupt this communication as much as possible, to make each division complete in itself. Then, again, these corridors are the only places for the men who are able to be up and about to use as day rooms. No doubt they may be agreeable enough in summer, but the cold in winter must be atrocious, notwithstanding a few fire-places scattered here and there along the line. The wards opening on to these are consequently also deprived for the greater part of the day of the sun-light and sun-heat so grateful to sick persons. In winter, further, the construction of the walls, which are supposed to be impervious, causes the vapour which condenses on them to accumulate in drops and streams of moisture, not quite pleasant to behold.

Still, as matters are now situated, owing chiefly to the abundant space, things work tolerably smoothly; but it is doubtful, or perhaps we might say not at all doubtful, what the result would be were there collected here a thousand or fifteen hundred wounded men.

The interest attaching to Netley Hospital is twofold, depending partly on the class of cases seen there, and partly on the Army Medical School connected with the Hospital.

First, as to the purely Medical arrangements, etc., of the place, we find as its head an Inspector-General of Hospitals, Dr. Beatson, C.B., with general charge; then in charge of the Medical wards is Dr. Maclean, also Professor of Military Medicine in the School; whilst over the Surgical wards is Professor Longmore, who also occupies the chair of Military Surgery. These gentlemen, however, being chiefly concerned in teaching, have under them, in the former instance, Surgeon-Major Fyfe, and, in the latter, Surgeon-Major Mackinnon, who are also Assistant-Professors, but are chiefly concerned with the cases in the wards. During the session the Medical candidates are usually each put in charge of a ward, with a varying number of Assistant-Surgeons, according to the amount of work to be performed. As Netley is the great invaliding station, the number of sick to be looked after varies much. At the time when those sent home from India are here quartered before being dismissed to their homes, or sent back to their regiments, as many as 700 or 1000 men have to be looked after; at other times not a third part of that number. Before being sent home invalided, a soldier has to pass a board, consisting of a certain number of regimental or other Medical officers, after which he is sent from his station to some point where invalids assemble, and thence, as opportunity offers, homewards to Netley by some or other of her Majesty's troop ships. It not unfrequently happens that the invalid from India, especially if he has had the long sea voyage round the Cape, reaches home perfectly recovered, and is ready to be sent back again. These are cases where the constitution has been broken by climate, and perhaps by excesses, and in which the hills would be the appropriate remedy, but which are nevertheless sent home. Others, of course, are in worse plight; some are immediately discharged after passing a second Medical board at Netley; some are kept for a time to see how they get on, and some never leave the Hospital. This second Medical board has merely reference to their fitness for discharge; the matter of pension is settled at Whitehall. It consists of the principal Medical officer and the officers in immediate charge of the Medical and Surgical wards and the convalescents. In the olden days, when troops were taken out to India and invalids sent back by way of the Cape, the invalids usually arrived here in the warm months of the year; but nowadays, as they are generally sent by the overland route, they not unfrequently come to land in the depth of winter. The consequences are disastrous. Having left a hot climate in a weakened state, and suddenly passing from a warm to a cold region, pneumonia attacks them, and carries many of them off with all speed, remedies notwithstanding. On the other hand, under the old system, the want of fresh meat and vegetables told heavily on many, and the weakest would drop off one by one just before they reached the shore. Still we think it might be managed so that these unfortunates might reach the country in warm instead of cold

(a) We use this word in the sense of "decidedly rich," but without saccharine predominance.

(b) In the absence of our staff and apparatus, the alcoholic strengths were approximately taken by Crockford's Indicator; the specific gravity carefully estimated by the balance.

weather. Such a degree of consideration might surely be shown for them by the most rigid economist.

In the Medical wards a great number of the patients were suffering from broken constitutions, the result of bad climates, to which the men are especially exposed when on night duty. The villainous spirits sold to them in the Indian bazaars add their quota. Phthisis is everywhere prevalent, and heart disease, unaccompanied nor preceded by rheumatism, is common. There seems to be a general feeling among army Medical officers that, whether the last-named disease is dependent on the tight tunic and stock alone or also on the other accoutrements, it is undoubtedly due to the soldiers' equipment in some fashion, and it is expected that the new tunic and valise will do much to remedy it—that is to say, when these are issued. One would expect to find in the Surgical wards of a military Hospital something like Surgery, yet we only saw a single case of amputation, one or two cases of fistula in ano, a few of stricture, and so on; the great majority of the patients were syphilitic.

The case of amputation was an interesting one. The patient, a soldier's wife, aged 28, had been seven years in India, most of that time in Cannanore, in the Madras Presidency. The place is on the sea coast, and is during six months of the year exceedingly wet. Here she was attacked by sores to all intents and purposes similar to what are known as Mooltan or Frontier sores, the Dehli boil, etc.; her left leg and wrist were attacked, and after a time she was sent home. The sore on the hand gradually healed, but those on the leg continued to be so troublesome that the limb was ultimately amputated at the knee-joint, the cartilages and patella being retained. When we saw the case the wound was almost entirely healed. Many have sought for the origin of these intractable sores in climatic characteristics. Such a case as this, occurring under circumstances as diverse as may be from those prevalent in the north-west, show that it is yet to seek. Whether the theory advanced with regard to the Delhi boil, that it is of parasitic origin, be true or not remains to be proved, but it certainly agrees better with some of the conditions than does the other.

Another curious case was that of a soldier who had suffered from stricture, and who had been intrusted with a gum-elastic catheter, with instructions to pass it regularly. He had apparently allowed it to remain too long in on one occasion, for when he withdrew it only a portion came away, the remainder slipping into the bladder. This was in April, 1869, and all attempts at the removal of the fragment having failed, lateral lithotomy was performed, and five and a-half inches of the bougie were removed crusted over with phosphates. A certain portion of this crust remained behind, and constituted the nucleus of a new accumulation, which had to be removed in a similar manner some months ago. The mass was this time soft and pulpy. The man has done well, but one cannot help thinking that the second accumulation following on the first implied an abnormal condition of urine which might possibly have otherwise been remedied.

One man we saw was suffering from fractured patella. He had fallen in the barrack-room, his knee striking flatly on the floor; nevertheless, a transverse fracture was the result. This had been bandaged merely, and a considerable space intervened between the fragments. There seemed to be no particular vice in the man's constitution to account for this somewhat unusual accident. Unlike this, we observed another patient suffering from constitutional syphilis, who, in throwing a stone, had broken his humerus, the muscular action being here sufficient to break a bone which nevertheless showed no signs of local disease. One man was affected with complete anchylosis of the knee-joint, brought about in an innocent enough way. He had been playing at cricket, and a wicket having been sportively thrown at him when the game was over, the sharp point penetrated the knee-joint, inflammation followed, and anchylosis was the result.

We observed in the wards several examples of specific pains commonly called rheumatic. One of the most notable of these occurred in the person of a soldier, who in 1868 contracted a gonorrhœa. Speedily afterwards he was attacked with acute pain in the knees, ankles, and toes, and ever since that time he has suffered from these pains, sometimes in one portion of the body, sometimes in another, but not confined to joints or to bones, he now suffering most in the lumbar region. During all this time the discharge continues, having never once stopped since 1868.

Another curious case was that of a man from Nusseerabad, who suffered from obstinate ulcers over the pubes. These did not seem to be of specific origin, but were nevertheless most difficult to heal, cicatrizing at one spot only to break out at another, so that there was great destruction of parts round about, as well as contraction of the neighbouring sound tissues. Neither did there seem to be any connexion between this somewhat unusual form of disease and the exceedingly dry soil and climate of the station whence the man came, he apparently having been the only one to suffer from it; nevertheless, the regiment lost very many men from various other causes, for the district is far from healthy. Another case of ulceration, said to be due to epithelioma, involving the anus and perineum, and extending up into the groin in front, attracted our notice. The patient, who was half-caste and comparatively young, having entered the army as a soldier's son, was only kept up by enormous quantities of morphia.

A still more curious case was close by. The patient was a soldier, aged 28, who in 1864 had obstinate eczema in the back. After a time he got rather better, and was discharged from Hospital, but speedily came back. He has now been an inmate for two years, and there seems no likelihood of his getting better. At the present moment he may be said to be without epidermis from head to heel. The whole body is as red as a live coal, and when at one point the surface dries partially up, at another it is discharging, so that a constant drain is kept up on the system. Professor Longmore says every remedy which could be thought of has been tried, except that of tarring. Baths, which would seem to have been most promising, only added fuel to the fire. After a couple of hours in one he begged to be removed. The treatment which seems to have given him most relief has been rubbing with cod-liver oil, although perhaps any other kind of oil would have done as well. This seems greatly to relieve the general irritation of the skin, preventing the formation of hard crusts, and covering over the tender and weeping portions of skin.

Of syphilis almost every form was displayed; not that the slighter cases of secondary affections are sent here, but rather because men very frequently contract the disease after being invalided. This would seem to be especially the case in India, where men, having left their stations invalided perhaps from intermittent fever, make their way to an invalid depôt, and there acquire the disease, which makes sad havoc in such shattered constitutions. Even in our home stations this is the case, so that in this Hospital may be seen men with primary sores, papular eruptions, and erythematous sore-throat, whilst others are in the most advanced stage of the malady, with deficient skull-caps and palates, circinatous sores, carious bones, and dissolving gummata. Of the intermediate stages there are but few examples. As seen in the Surgical wards, the malady, as a rule, attacks the skin or the bones, and in many instances, as far as can be made out, rupia was almost the earliest eruption noticed. This leads us to point out how lamentably deficient are the health reports sent home with those men who are received at Netley. In looking over the register of cases, we noticed that in the great majority of those of syphilis there was no account of treatment given. In some it was stated that mercury had been used, in others that it had not, but in the majority no history was attainable. Neither was there any record of the nature of the primary lesion, nor of the dates of the various eruptions. From the men themselves we found it impossible to obtain a satisfactory account of the progress of the malady, and thus much is lost which might be of good service in the progress of Medicine. In civil life it is hardly possible to trace a disease as syphilis can in the army, and it would be well if a little more of the Medical officers' time was devoted to this useful purpose, rather than to the cultivation of red tapeism—still so much in vogue.

A short distance behind the Hospital an asylum has recently been built. It is intended to be used in the same way as the Hospital—to receive patients sent from abroad, to test their curability, and if the cases turn out unsatisfactorily, to serve as a place whence they may be drafted off to their parishes or to other lunatic asylums.

The premises occupied by the Army Medical School at Netley are partly situated in the central administrative block already mentioned, and partly in a range of buildings situated behind the southern wing of the Hospital. The central portion contains the museum, the lecture theatre, and the quarters of the Medical cadets; the other the post-mortem theatre, the laboratory, and the microscope-room. The museum is partly occupied by pathological specimens—some of these of great value—and partly by the weapons in use in warfare, the means of relieving the wounded, and the means of maintaining health among men. Of the pathological portion it would hardly be possible to speak except at great length, so that we are reluctantly compelled to defer, at least, any account of its contents.

Of the other rooms, those which struck us most were those containing the various kinds of ambulances and litters, models of barracks and Hospitals, samples of accoutrements, the various kinds of disinfectants, different articles of food, etc. Close by is the library, well stocked with Medical works of all kinds, and with a liberal supply of Medical periodicals. The lecture theatre lies on the opposite side of the corridor; it is large, but struck us as not being particularly well lighted. Its most notable feature is a large relief map of India, most admirably executed, giving a better idea of the relative situations of places, the heights of mountains, and the course of rivers, than anything we have elsewhere seen. As a large proportion, in fact we may say all, who are here instructed have to visit India sooner or later, its value as a means of instruction must be great.

The laboratory is superintended by Dr. Parkes, and is chiefly intended for the instruction of the Medical officers in the arts of peace—the detection of adulterations in food, the testing of potable waters—in short, in all those branches of hygienic science which come into play in providing for the welfare of large bodies of men.

The post-mortem theatre and the microscope-room are presided over by Dr. Aitken, in whose private room are preserved a variety of specimens of morbid products. The microscope-room is furnished with Smith and Beck's educational microscopes; for our own part we decidedly prefer the smaller and more compact instruments made by Hartnack, which cost less, and, in our opinion, work better than do those referred to. The room is provided with rows of gas lamps, provided with blued glass shades. We are not aware that these are used for microscopical purposes, for which a common paraffin lamp certainly answers much better.

The time of our visit was somewhat unfortunate, there being no studies going on, so that we saw the educational portion of the machine at a standstill, and not in working order; nevertheless it was full of instruction, and we cannot do less than thank the authorities for the opportunity afforded us, and in particular Dr. Bonnyman, for the trouble taken in showing us the general arrangements, and the cases undergoing treatment.

REVIEWS.

On Comparative Longevity in Man and the Lower Animals. By E. Ray Lankester, B.A., Junior Student of Christ Church, Oxford. London: Macmillan and Co. 1870.

On the Stature and Bulk of Man in the British Isles. By John Beddoe, B.A., M.D., etc., President of the Anthropological Society of London. London: Asher and Co. 1870. (Reprinted from Vol. III. of the Memoirs of the Anthropological Society of London.)

We have already briefly noticed Mr. Lankester's essay in general terms of commendation. We shall now attempt to give our readers some idea of the plan which he has pursued in its compilation. It has the disadvantage, common to all prize-essays, of being written for a specific object, and not because the author felt that he was in the possession of new facts or ideas which it was his duty to publish for the benefit of the world at large. With this general drawback, it is a very creditable performance, and it contains abundant evidence that its author sought for information from all available sources, and, we may add, from sources that would not have been available to the ordinary class of Oxford undergraduates and bachelors. The present generation of older naturalists have been happy in seeing their mantles gradually settling on the shoulders of their descendants; and whether it be that genius is hereditary, or that the result is due to early training, there is every reason to believe that the sons of Agassiz, Carpenter, Milne-Edwards, Lankester, and Sars, will do no discredit to their respective family names. Almost from his boyhood the name of Ray Lankester has been familar to the readers of natural-history periodicals; and for several years he has been recognised as an active investigator of some of the most abstruse points of biological science. Hence, when he resolved to write this essay, Mr. Lankester was in a position to apply for any special information he might require to a large circle of distinguished naturalists; and this volume abounds with notices of what he had privately learnt from Messrs. Bates, Bell, Darwin, Günther, Peach, and others.

After noticing the principal works that have been written on the subject of longevity, he proceeds to show, on the authority of the above-named writers, and of Yarrell and Gwyn Jeffreys, how little certain knowledge we possess regarding the length of life of any animals excepting insects. He then proceeds to give his own definition of longevity, as being "the length of time during which life is exhibited in an individual." But what is an individual? Mr. Lankester, while urging that "we assign to the term a definite meaning," is obliged to admit, with Mr. Spencer, "that there is no possible definition of individual which is absolutely unobjectionable," the difficulty being in finding a definition that will apply to the numerous examples of asexual reproduction. For example, if we regard the whole product of the fertilised germ as an individual—a definition that is unobjectionable in so far as the vertebrata, mollusca, and most insects are concerned—the coral-polyps of the Red Sea might be regarded as having a longevity of several thousand years. Then, again, certain difficulties are involved in the term "life." Is an animal alive, in so far as the question of longevity is concerned, when it is in a state of suspended animation, as in the case of the rotifera, tardigrada, and encysted entozoa? In such cases as these life is potential, or latent, rather than efficient, and it is only with efficient life that we have to deal in this inquiry. The different kinds of longevity are next considered. Men, taken as a species, live longer than dogs, but all men and all dogs do not live equally long; and here we have *individual* and *specific* longevity, the latter being equivalent to the average longevity of the individual of the species—a point on which, in the case of many species, we have no data. His remarks on this subject are not very clearly expressed. "In speaking of 'longevity' of groups of beings," he observes, "we usually mean the potential longevity, or 'lease of life,' as Mr. Grindon terms it, and do not allow the average longevity, affected as it is by disease and accident at all periods of life, to enter into our consideration. The term 'mortality' is usually applied to the question of average longevity, and hence, in accordance with general convention, longevity may be understood to refer to potential longevity. That the average longevity of a group of individuals is but slightly related to the potential longevity appears from these [? the following] considerations. From enemies preying on the 'young ones,' or from disease, or from a severe struggle for food, or from the accidents of dispersion, vast numbers of the individuals of the group may die at a very early age; those, on the other hand, which do survive, may live to a period of time quite unaffected by the conditions which acted on them in the early stages of their existence. Thus, from great destruction of the young, the average longevity may be brought very low, and not indicate directly at all the potential longevity." Pp. 21, 22.

He proceeds to point out various reasons why "we must again qualify or analyse potential longevity, as applied to species; for there is one period which is proper to the species in the normal conditions, which it cannot by any struggles of its own extend; while there is a second period which is equally proper to a species (as far as experiments tell us) which man can make evident by removing some of the natural conditions and substituting others, which, however, has its limit, beyond which no power that is known can extend the life. The first period may be called normal potential longevity, the second absolute potential longevity." P. 25.

That there is a limit to absolute potential longevity in many organisms is obvious to every one, but in some forms of life this longevity appears almost practically unlimited, as in fish, mollusca, the larger crustaceans, annelids, many trees, and seaweeds. The readers of this interesting essay will do well to bear in mind that through the rest of the volume the term "longevity" is taken as synonymous with "normal potential longevity."

The chapter on "Inherent Death" is full of valuable matter. The author brings forward evidence to show that the duration of life, after growth is completed, depends on the amount of living matter accumulated during growth, and that this depends on the size at birth, *cæteris paribus*.

The "Statements as to Duration of the Individual in Organisms" are full of valuable facts, and as the author asks for any trustworthy additions, we may observe, rather in the way of correction than addition, that according to Gosse, male rotifers (*Brachionus*) never seem to live for twenty-four hours, while, if the statements of entomologists are to be believed, there is a locust which derives its name from its larval and pupal life extending over seventeen years.

The latter part of Mr. Lankester's essay is devoted to "The Longevity of Man," and is clearly the result of much careful reading and consideration. In discussing "abnormal longevity," he gives the cases of Miss Baillie, sister of Dr. Baillie; of Mr. Shuldam, of Marlesford Hall, who was baptised in July,

1743, and died in May, 1845; of a Mr. Davies, who lived to be 109; of an officer with whom Sir Henry Holland breakfasted, in America, in 1868, who was then 104; and of a case known to the same Physician, in which the age of 111 years was reached. Several well-attested cases of persons living above 100 years have recently been published in *Once a Week*, *Notes and Queries*, and the *Times*. From the last named journal we extract the following notices, occurring during the present year 1870:—

"Old Meyer, 107 years of age, is still alive and well." Authority, Rev. M. Posselt, of Natal.—*Times*, April 15.

"Sarah Pay died at Canterbury, on Good Friday, in the 104th year of her age. She was born at Chartham, in Kent, in the early part of 1767."—*Times*, April 19.

"Samuel, a twin son of John and Joan Collins, was baptised at Woollavington, near Bridgewater (as recorded in the register), in 1768. He is still alive, being 102 last March, and able to go to shop with his basket."—*Times*, May 20.

"Jacob William Lüning, a native of Hanover, died at Blackheath on June 23, aged 103 years, 1 month, and 4 days."—*Times*, June 25. [The accuracy of the age in this case is confirmed by the secretary of the Equitable Life Assurance Office, in which he assured when 32 years old.]

For the benefit of any of our readers who wish to attain a good old age, we may quote a verse from a song sung at a dinner, given by Mr. Shuldham to his tenants on his 100th birthday, and composed by his son, in which the old gentleman's mode of living is thus described:—

"Some take pills and physic for gout or for phthisic,
Try every new nostrum for malady sore;
Some quit their home-quarters to drink foreign waters,
And yet kick the bucket the same as before.
But comfort and quiet, and temperate diet,
Will make a man healthy and wealthy and bold;
While a glass of good wine, too, will strengthen the spine, too,
And make him, like Shuldham, a hundred years old."

Dr. Beddoe's "Essay on the Stature and Bulk of Man in the British Isles" does not admit of a ready analysis. More than three-quarters of it consists of tables giving the average height, with and without shoes, and the average "naked weight" of groups of persons of different classes, born or residing in various districts; and of remarks on these tables.

Some very interesting facts regarding the physical and moral characteristics of the inhabitants of different localities lie scattered amongst these remarks; for example, the colour of the eyes and hair, the temperament, the ethnological elements, the nature of the diet, etc., are commonly recorded. The name of the gentleman to whom Dr. Beddoe is indebted for each special return is always mentioned. The compilation of these tables must have been the result of much labour. The author distributed schedules (containing directions as to how they were to be filled up) to Medical men and friends in all quarters of Great Britain, but the returns came in very slowly. Some correspondents alleged, as a difficulty, the want of ready access to a weighing machine, but the greatest difficulty was in the people to be examined.

While the lower classes in Scotland generally took an interest in the matter, the fishermen on the east coast proved extremely stubborn and suspicious, while "waste of workmen's time" was adduced as an objection by a Glasgow manufacturer. In Ireland, the proposal that the men should be measured suggested the idea that it was a preliminary to enforced enlistment, and some of the Tipperary "boys" fairly took to their heels. The same feeling existed in Wales, the natives being convinced that the inquiry had been instituted by Government, and, therefore, *must* mean mischief. In the south-east of England the shyness—more probably the superstition—of the peasantry threw difficulties in the way; while in Lancashire and elsewhere, the rugged rudeness of the people was the cause of failure. The bucolic and Bœotian county of Hereford was the only one from which he failed to obtain any report. Surely in these startling facts we have abundant evidence of a Compulsory Education Bill.

In addition to the aid afforded him by his private friends and correspondents, Dr. Beddoe obtained important details regarding recruiting statistics from the War Office, and regarding the stature, bulk, &c., of the inmates of the county lunatic asylums.

The most readable part of the essay is the "Commentary," which forms the last third of the volume. It commences with a set of tables indicating the occupations and number of persons (males between 23 and 50) examined, with their average stature and weight. Special tables are compiled for four groups of counties in England and Wales—namely, the Sussex group, containing fifteen English counties and North Wales, in all of which the agricultural element predominates; the Kent group, containing fourteen counties and South Wales, and holding an intermediate position in this respect; the Staffordshire group, embracing seven counties and the city of Bristol, in which manufacturing and mining industry begins to occupy the bulk of the population; the Lancashire and Yorkshire group, including those two counties only, and the population of which are engaged in manufactures; while the metropolis and Scotland form the last two groups.

We may remark that the author's comments on the different occupational classes included in these tables, on the predisposing and exciting cause of lunacy and criminality, and on the stature and weight in different districts, are extremely valuable. He thinks that the causes which determine the variations of average stature which he has shown to exist in townsmen and artisans may be arranged under the following heads:—

1. Birth and rearing in town or country. { *A.* Influences prior to birth. *B.* „ subsequent thereto.
2. Selection and elimination. { *C.* Natural or spontaneous. *D.* Artificial.
3. Nature of employment.
4. Habits of life during youth.

As Darwinism is the great scientific question of the day, we may observe that, under the head *C*, the author refers to an article which he published in volume i. of the *Anthropological Review* "on the *possible* effect of conjugal selection in modifying the type of a race." He adds that, "in certain states of society conjugal selection, either spontaneous or according to rule, operates towards maintaining the beauty and vigour of the race. Under our present circumstances, it is very doubtful whether it continues to do so. Physical qualities have no longer the value they used to have in the matrimonial market." By natural elimination he means, "for example, the effect produced in a trade in which phthisis is very rife (such as that of a tailor) by the early death or withdrawal of those predisposed to the disease, who have often a peculiar bodily type."

His remarks on 4 (habits of life during youth) are deserving of the best attention of all our readers, who would do well to impress them on the minds of their youthful patients.

"The early and copious use of alcohol and tobacco have the reputation, probably well-earned, of stopping growth, and are notably more rife in some trades than in others. The want of opportunity and stimulus for the development of their physical powers by young persons in towns, the earlier occurrence of puberty, itself an effect of complex causes, and the greater frequency of youthful profligacy, may all be noted here."

In concluding our notice of Dr. Beddoe's elaborate and valuable essay, we may remark that, although we never had the pleasure of seeing him, we can picture him to our mind's eye as a vigorous "muscular Christian," standing upwards of six feet high without his shoes, and with a "naked weight" of about 200 pounds. No dwarfish writer *could* have advocated so forcibly the value of "thews and sinews," and the individual and national advantages of superiority of stature.

"If we examine only a single race or reputed race at a time, we shall find, I believe, that, whenever that race attains its maximum of physical development, it rises highest in energy and moral vigour. I have shown that Scotland in general, Northumberland, Cumberland, parts of Yorkshire and Cornwall, are the portions of Great Britain which produce the finest and largest men. I think it will be acknowledged that they also yield more than their share of ability and energy for the national benefit." P. 185.

The Climate of the South of France, as Suited to Invalids; with Notices of Mediterranean and other Winter Stations. By Charles Theodore Williams, M.D. Second Edition. London: Longmans and Co. 1870. Pp. 162.

Dr. C. T. Williams's little book has reached a second edition, and has been made more valuable by the addition of an appendix containing observations on the choice of summer quarters for invalids, and Alpine sanatoria in 1870, by his father, Dr. C. J. B. Williams. The body of the book fulfils the promise of its preface. It gives "a brief and impartial survey of the climate of the South of France, and of its varieties best suited to pulmonary invalids." The information contained is chiefly the result of personal observation, and it has been evidently collected without bias and with a determination to present to the English Physician and his patient a true and unprejudiced account of the various health-resorts of sunny France. But the author has not confined the information he offers to the French Mediterranean shore. He has given descriptions of many of the winter stations in Italy, Spain, and

North Africa. If the war between Prussia and France continue through the coming winter, as seems only too probable, this part of his work will not be the least consulted. But the appendix to the present volume, containing as it does the valuable practical notes by Dr. C. J. B. Williams, first published in a Medical contemporary, on Alpine climate in the treatment of consumption, will not fail to obtain readers. Dr. Williams's remarks on what is called the Alpine cure, both in winter and summer, and on the kind of cases which it is likely to benefit, are very valuable; and he gives a very graphic and readable account of his visit to the Engadine and Bormio. Few of our English Physicians have had the opportunities of watching the effect of climates on pulmonary disease that have fallen to the lot of Dr. C. J. B. Williams, and although the main portion of the book is the work of his son, who, as we have said, is well-qualified by personal observation to write on the subject of sanatoria, yet it undoubtedly derives additional interest and worth from embodying, in a permanent form, so much of the practical experience and teaching of the father. We can heartily recommend the book as useful and readable.

GENERAL CORRESPONDENCE.

MISERIES OF MYOPS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The able author of your summary of scientific news "from abroad" gave us last week a dismal picture of the interior of a short-sighted eye, and of the horrid pathological changes to which it is subject. Now, as I have been short-sighted all my life, I should very much like to correct some of M. Giraud-Teulon's conclusions from my own experience.

In the first place, let me ask if it be a well-ascertained fact that myopia generally is the result of the employment of the organ upon near and minute objects, and in particular upon the letters of the alphabet, which I suspect are the only minute objects which employ the eyes of most children? Now, from almost the earliest period at which I can remember anything, I remember being short-sighted, and this long before the eyes could have been injured by devotion to book-work. One of the first things I can remember was being cuffed for not reading from a book at a distance at which my schoolfellows could read; and, secondly, being equally cuffed for "poking my nose" into the book in the vain endeavour to bring my eyes within focal length. Again, out of my own eight children, all treated alike with regard to tuition, I notice that two—who are much alike in other respects—are quite myopic, whilst all the others are astonishingly long-sighted. It is evident, then, that education does not cause short-sightedness unless there is a "predisposition;" and this predisposition I affirm to be but another word for the fact that some children are born short-sighted.

But it is said that town schools show a larger proportion of *myopes* than country schools do. There is no doubt of the fact, but there is no evidence that town children are put to school earlier or made to work their eyes harder than country ones.

No, the fact seems to be that myopia is a congenital affection accompanying a peculiar state of development of the nervous system—a state of overbreeding, common amongst the denizens of towns and amongst the educated classes, in whom brain and sensibility are developed in undue proportion to bone and muscle. Short-sight is the appanage of poets, critics, artists, and others of highly sensitive organisations, and is congenital, and not a product of disease.

Short-sight seems peculiarly the kind of sight useful in towns. For myself, I can say that I can work hard and long at minute objects, reading the very smallest print in very indifferent light; and hence I ask, can this state of eye be called diseased? I think not. That some diseased eyes may be myopic is one thing, but that short-sighted eyes, as a rule, are diseased is another.

How do short-sighted eyes wear? I think, uncommonly well. I see people ten years my juniors using convex glasses, and complaining that they can't see by candlelight. Their eyes are more the worse for wear than mine. As for the theory that short-sightedness decreases with age, that is true only to a limited extent. I know that I can see some distant objects in a familiar horizon which I could not see when a child; but, as regards the focal distance for reading and writing, that is unaltered.

But, whilst thus contending that short-sighted eyes are not so bad as may be thought, don't let me be supposed to underrate what has been a life-long misery, mitigated only by spectacles. To cut your nearest friends, to accost strangers by mistake, to get vague and indefinite ideas of features, to see works of art with blurred outlines, to lose the distant points of a landscape, are miseries enough; but I believe the secret is, that, whenever a child appears myopic, the parents should take it as a mark of "running to nerve," and should cultivate open-air exercise and country life, to restore the balance of nutrition to the so-called lower parts of the animal œconomy. I am &c.

London, August 29, 1870. MYOPS.

OBITUARY.

WILLIAM JAMES CLEMENT, F.R.C.S., M.P.

MR. CLEMENT, who represented Shrewsbury in Parliament, died on Tuesday last, at the age of 66. He had long suffered from "severe affections of the kidney, and probably of the pancreas. The chief symptoms were pallor, voluminousness of the intestines, and the unabsorption of fat. He had a ravenous appetite, became extremely emaciated, and could not keep warm." He was the eldest son of the late Mr. Wm. Clement, who for upwards of half a century was in practice at Shrewsbury, where the deceased member was born in 1804. He received his education at Shrewsbury school and at the University of Edinburgh, and practised as a Surgeon in his native town until his election to Parliament. He had a very extensive consulting practice in the north-west of England and the north of Wales. He had a large income, was a very public-spirited man, was very hospitable, and a thorough Radical in his politics. He was twice mayor of Shrewsbury, was magistrate for Salop, magistrate and deputy-lieutenant for the county of Merionethshire, and Surgeon to the 1st Battalion of Shropshire Rifle Volunteers. He was first elected M.P. for Shrewsbury in 1865, and was re-chosen at the general election of 1868. During his seat in Parliament he was a silent, but a firm and consistent friend of his Professional brethren, and voted always on the "right side." His contribution to the literature of the Profession consisted of "Observations in Surgery and Pathology." He obtained the Fothergillian gold medal for an "Essay on the Anatomy, Physiology, and Pathology of the Urinary Organs." He contributed to the *Transactions of the Medico-Chirurgical Society* "Two Cases of Intestinal Obstruction in which the Operation for Artificial Anus was successfully performed;" and he contributed to the *British Medical Journal*, in 1858, "An Account of a Case of Successful Amputation of the Hip-Joint for a Tumour affecting the Upper Third of the Thigh."

Mr. Clement was a great favourite with his townsfolk, and, indeed, with all who knew him, and has died deeply lamented.

JAMES McNICOLL, M.D.,

CORONER for Hepburn, Victoria, died, aged 44, on Tuesday, May 10, from exhaustion, consequent upon the inability of his stomach to retain food of any description. The disease to which he succumbed is believed to have been cancer. The deceased was a son of the Rev. David McNicoll, a Wesleyan minister of eminence, not only in the pulpit, but as an author and a scholar. Dr. McNicoll arrived in the colony by the *Great Britain* on her first voyage, and practised his Profession for some time at St. Kilda. He subsequently removed to Castlemaine, and thence to Daylesford about six years ago. The deceased gentleman had been at one time in partnership with the late Dr. Eades.

MEDICAL NEWS.

UNIVERSITY INTELLIGENCE.—UNIVERSITY OF LONDON.

FIRST M.B. EXAMINATION.

EXAMINATION FOR HONOURS.

ANATOMY.

First Class.

Benham, Henry James (Exhibition and Gold Medal), University College.
Russell, Ebenezer Geer (Gold Medal), Guy's Hospital.

Second Class.

Greenfield, William Smith, University College.
Birt, George, Sydenham College, Birmingham.

PHYSIOLOGY, HISTOLOGY, AND COMPARATIVE ANATOMY.

First Class.

Benham, Henry James (Gold Medal), University College.
Coupland, Sidney, University College. } Equal.
Russell, Ebenezer Geer, Guy's Hospital. }

Second Class.

Greenfield, William Smith, University College.

ORGANIC CHEMISTRY, AND MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

First Class.

Nankivell, Charles Atkinson (Exhibition and Gold Medal), University College.
Greenfield, William Smith, University College. } Equal.
Russell, Ebenezer Geer, Guy's Hospital. }
Birt, George, Sydenham College, Birmingham.

Second Class.

Coupland, Sydney, University College.
Benham, Henry James, University College.

FIRST B.Sc. AND PRELIMINARY M.B. CONJOINTLY.

CHEMISTRY.

Second Class.

Hetley, Henry (Prel. Sci.), Guy's Hospital.
Carpenter, Philip Herbert (First B.Sc. and Prel. Sci.), University College and Royal School of Mines.

Third Class.

Palmer, F. John Morton (Prel. Sci.), Guy's Hospital. } Equal.
White, Ernest William (Prel. Sci.), King's College. }
Crétin, Eugène (Prel. Sci.), St. Bartholomew's Hospital. } Equal.
Rogers, Thomas King (Prel. Sci.), University College. }
Groves, Henry Joseph Firth (Prel. Sci.), Guy's Hospital.

ZOOLOGY.

First Class.

Keetley, Charles Robert Bell (Prel. Sci.), St. Bartholomew's Hospital.
Hetley, Henry (Prel. Sci.), Guy's Hospital.
Batterbury, George Henry (Prel. Sci.), King's College.

Second Class.

Wackerbarth, Edward (Prel. Sci.), University College.

Third Class.

Vines, Sydney Howard (Prel. Sci.), Guy's Hospital.
Lamb, William Henry (Prel. Sci.), Guy's Hospital.

EXPERIMENTAL PHYSICS.

Second Class.

Lowe, John Landor (First B.Sc.), King's College.

BOTANY.

First Class.

Maclean, Thomas Edwin (Prel. Sci.—Exhibition), University College.
Vines, Sydney Howard (Prel. Sci.), Guy's Hospital.

Third Class.

Batterbury, George Henry (Prel. Sci.), King's College.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 25, 1870 :—

Harding, Alfred William, Percy-street, W.C.
Perkins, Whitfield, Malmesbury.
Phillips, George Arthur, Whitwell, near Welwyn.
Rawlings, John Adams, Swansea.
Turner, Henry Crockford, Lewes.

The following gentlemen also on the same day passed their First Professional Examination :—

Addy, Boughton, St. Thomas's Hospital.
Gayson, Francis Dowell, Guy's Hospital.
Maisey, Frederick Thomas, Guy's Hospital.
Morris, Enoch, London Hospital.

APPOINTMENT.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

RUGG, ALFRED B., L.R.C.P. Lond., M.R.C.S. Eng.—Resident Medical Officer to the Bournemouth General Dispensary, *vice* W. W. Humby, M.R.C.P. Lond., appointed to the National Sanatorium, Bournemouth.

MILITARY APPOINTMENTS.

WAR OFFICE.—The following appointment has been made :—56th Foot.—Staff Surgeon Frederick Oakes to be Surgeon, *vice* William Tydd Harding, appointed to the Staff.

MEDICAL DEPARTMENT.—Staff Surgeon-Major James Crerar from half-pay to be Staff Surgeon-Major, *vice* Francis Hastings Baxter, M.D., who retires upon half-pay; Surgeon William Tydd Harding, from the 56th Foot, to be Staff Surgeon, *vice* Frederick Oakes, appointed to the 56th Foot; Staff Assistant-Surgeon Thomas Butler Power O'Brien to be Staff Surgeon, *vice* Edmund Humphrey Roberts, placed on half-pay; Staff Assistant-Surgeon Henry Sherlock to be Staff Surgeon, *vice* Staff Surgeon Major John Corringe, deceased.

BIRTHS.

BURY.—On August 25, at Whetstone, Middlesex, the wife of Henry Charles Bury, M.R.C.S., of a son.

LEESON.—On August 24, at Myrtle-cottage, Lee-road, Kent, the wife of A. E. Leeson, M.D., of Buenos Ayres, of a son.

WILSON.—On August 25, at Park-house, Maida-hill West, the wife of H. Wilson, M.D., Bombay Army, of a daughter.

MARRIAGES.

CAMPBELL—RANDALL.—On August 25, at the Parish Church, Great Dunmow, Essex, John Campbell, M.D., of Gloucester, to Elizabeth, second daughter of the late Richard Randall, Esq., of Great Dunmow, Essex.

CASSON—GOODWIN.—On August 24, at Wirksworth, Hornsey Casson, M.R.C.S.E., of Ashborne, to Isabel Harriett, youngest daughter of W. H. Goodwin, Esq., of Wigwell-grange, Derbyshire.

COUSIN—SWINHOE.—On August 8, in Valleta, Malta, George Cousin, M.D., to Anne Jane, widow of Thomas Bruce Swinhoe, B.A., and only daughter of the late William Grant, Esq., Elgin, N.B.

MARTIN—COLLEDGE.—On August 27, at Christ Church, Cheltenham, Capt. Cunliffe Martin, Bengal Cavalry, son of Sir Ranald Martin, C.B., F.R.S., Physician to the Council of India, to Frances Mary, only daughter of Thomas R. Colledge, M.D., F.R.S. Ed., Lauriston House, Cheltenham, and formerly of H.M.'s Civil Service in China.

WILLIAMS—M'CLURE.—On August 24, at Whiston Church, J. T. Williams, Surgeon Madras Army, to Sarah Ann, daughter of William M'Clure, Esq., of The Lathams, Prescot.

YEARWOOD—MANNING.—On July 27, at St. Leonard's Church, Barbadoes, Charles Edward Yearwood, Esq., to Elizabeth Anne Clary, only daughter of James Manning, M.D.

DEATHS.

BANKS, WILLIAM ROGER, M.D., elder son of Morris Banks, Esq., the Oaklands, Edgbaston, Birmingham, on August 19, aged 38.

BENT, ELIZA, daughter of the late James Justyn Bent, M.D., of Basford, Staffordshire, on August 27, at Derby, aged 81.

JOHNSON, DAVID, Surgeon, of 6, New Hall-street, Birmingham, at the house of his mother-in-law, Mrs. T. Walker, of Birchfield, near Birmingham, on August 24, aged 41.

PALMER, MARY ELIZA, the wife of Dr. F. W. Palmer, at Ormond-house, Old Kent-road, S.E., on August 27.

WEBSTER, Captain R. HILL, Queen's F.S.M., last surviving son of the late R. Webster, Surgeon-Major 4th Royal Irish Guards, at Lucerne, on August 17.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRIGHTON AND HOVE DISPENSARY.—Resident Medical Officer and Dispenser; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Committee of Management on or before September 5.

CITY DISPENSARY, 46, WATLING-STREET.—Physician; must be duly qualified. Applications and testimonials to Mr. W. Tyler, Secretary, on or before September 10.

GLOUCESTER COUNTY ASYLUM.—Senior Assistant Medical Officer; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Committee of Visitors on or before September 5.

GLOUCESTER COUNTY ASYLUM.—Junior Medical Assistant; must be duly qualified and registered. Further particulars may be obtained of Mr. Toller, the Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—Resident Clinical Assistant. Applications and testimonials to Mr. P. Rose, Hon. Sec., on or before September 3. Attendance at the Hospital will be required on Monday, September 5.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

MALE LOCK HOSPITAL.—House-Surgeon. Applications and testimonials to Mr. H. J. Porter, 91, Dean-street, Soho, on or before September 5.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, CITY.—Honorary Surgeon; must be F.R.C.S.E. Applications and testimonials to the Committee of Management on or before September 5.

NEWPORT UNION, MONMOUTHSHIRE.—Resident Medical Officer for the Marshfield District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. W. Downing Evans on or before September 16. Election on the 24th.

PARISH OF UNST, SHETLAND.—Medical Officer. Applications and testimonials to Thomas Edmondston, Esq., Unst, from whom further particulars may be obtained.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, MANCHESTER.—Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Barber, 41, John Dalton-street, Manchester, on or before September 30.

SALOP INFIRMARY, SHREWSBURY.—Dispenser. Applications and testimonials to the Chairman of the Board of Directors, on or before September 10.

SURREY DISPENSARY.—House-Surgeon; must be M.R.C.S. and L.S.A., and be duly registered. Applications and testimonials to Mr. R. G. Minshull Jones, Secretary, 190, Tooley-street, on or before September 26. Election on the 27th.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—Assistant-Physician; must be F. or M.R.C.P.L.; must not be engaged in the practice of Surgery, midwifery, or pharmacy. Applications and testimonials to the Secretary, at the Hospital, on or before September 7.

SUSSEX COUNTY ASYLUM, HAYWARD'S HEATH.—Assistant Medical Officer; must be unmarried and duly qualified. Applications and testimonials to Dr. Williams, Medical Superintendent, on or before September 3.

WHITECHAPEL UNION.—Public Vaccinator; must be registered and have both Medical and Surgical qualifications. Applications and testimonials to Mr. Vallance, at the Union offices, Charles-street, Whitechapel, on or before September 5. Election on the 6th.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Banbury Union.—Mr. Charles F. Knight has resigned the Swaleliffe District; area 12,500; population 3724; salary £81 8s. per annum; no fees. Mr. John Colegrave has resigned the Bloxham District; area 14,990; population 4882; salary £89 19s. per annum; no fees.

Wallingford Union.—Mr. Jacob Pickett has resigned the Workhouse; salary £56 per annum; also the Wallingford District; area 9890; population 5476; salary £119 per annum; no fees.

Wolverhampton Union.—The Third Wolverhampton District is vacant; area 807; population 16,124; salary £72 4s. per annum; no fees.

APPOINTMENTS.

Castle Ward Union.—James Marr, M.R.C.S. Eng., L.R.C.P. Edin., to the Stamfordham District; Miles Walker, L.F.P.S.G., L.R.C.P.E., to the Whalton District.

East Ashford Union.—Robert Brennan, M.R.C.S.E., L.S.A., to the Fifth District.

Forden Union.—Edward T. D. Harrison, M.R.C.S. and L.A.C., to the Workhouse.

South Molton Union.—Rawdon Briggs Robinson, L.R.C.S. Edin., L.R.C.P. Edin., L.S.A., to the Third District.

Stockport Union.—Alfred Godson, M.B., M.C., to the Cheadle District.

MR. SOLLY'S refusal of the office of Hunterian Orator has been publicly announced to be the result of indisposition, arising from recent exposure to excessive heat. We are glad, however, to be able to state that Mr. Solly's indisposition has been of quite a temporary character, and that he is now enjoying a well-earned interval of rest in Switzerland.

THE LEGION OF HONOUR.—Among the promotions made on August 7 were—Professor Paul Gervais, of the Museum; Professor Hardy, of St. Louis; Professor Martins, of Montpellier; and Professor Richet, of the Hôpital des Cliniques; who were named officiers. Professor Bach, of Strasburg; Professors Bechamp and Fuster, of Montpellier; and Professors Bucquoy, Fournier, and Le Fort, of Paris; were named chevaliers.

YELLOW FEVER.—Several vessels from Cuba have been detained in quarantine at New York, some of the crews having had yellow fever.

INSANITY IN IRELAND.—The number of lunatics in Ireland has diminished, but it is considered only in the proportion of the diminished population.

A LADY MEDICAL AUTHOR.—It is stated that the prize offered by the editor of a Medical journal in Philadelphia for the best series of articles on clinical practice has been claimed by Mrs. Margaret M. Webster, who contributed a series of remarkably able papers to the journal under the initials "M. M. W." The prize has been awarded to the fair authoress.

THE Royal Sea-Bathing Infirmary, Margate, was established in 1796, during which year the patients numbered 16; during the year 1869, they were 850. The last report states that on August 20, 1869, the number of patients in the Infirmary was 254, to whom had since been added, up to August 20, 1870, 508, making a total of 762. Of this number there were deaths, 7; cured, 132; greatly benefited, 187; benefited, 146; not relieved, 51; in the Infirmary 235.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Mockett's paper has been received, and shall appear.

Machaon.—The St. Elie is a very stimulating wine, fit for the purpose. Some *Red Patras* is very fine wine, of Burgundy character, and very cheap. Between Scottish and Irish whisky we cannot take the responsibility of a choice. "Invalid turtle" should be a concentrated soup, made without additions, except, perhaps, a little veal; it should be clear. Turtle can be got fresh from the Ship and Turtle in Leadenhall-street, and in tins, from Mr. Van Abbott, of Princes-street. From the same source can be had the biscuits, etc., for diabetes.

List of the College of Physicians.—Some names are kept in because no official intimation of death is sent to the authorities. There is the name still printed, year after year, of a country Physician who has been dead sixteen years.

E. B.—1. Trousseau's Clinical Lectures, published by the New Sydenham Society. 2. Become a Member of the Medical Society of London, or of the Royal Medico-Chirurgical, or Obstetrical; all have libraries containing the works in question, which are expensive to buy, and could never be read through. 3. The work of M. Charles Anglada, "Sur les Maladies nouvelles," and "les Maladies éteintes," will show you the other side of the question. All contagious diseases communicable in sexual intercourse are not syphilitic.

Tibi.—1. Once a year. 2. Yes.

R. M.—By application to the Colonial Secretary.

A. Z.—Not if he be registered.

Q. in the Corner.—In due time the exposition shall be made.

Bradford.—There is a good deal of truth in the leading article in the *Bradford Daily Telegraph* on Medical evidence. But the article is written in exceedingly bad taste, and displays an utter ignorance of the Medical Profession. We admit that Medical testimony on trials, particularly with respect to compensation for railway accidents, is often most unseemly and discreditable; but the remedy is easy, and does not consist in a fierce and vulgar tirade against the parties concerned.

Corrigendum.—In our correspondent's note on the Contagious Diseases Act in Southampton Dr. Duigan's name was by a clerical error inserted for that of Dr. Digan.

DR. RUMSEY AND THE CONTAGIOUS DISEASES ACTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Dr. Rumsey, in his remarks before the British Medical Association, at Newcastle, alluded in strong terms to the opponents of the Contagious Diseases Acts. Amongst other things he charged them with "indecency and violence of language," "shamelessness of unfounded assertion," the "perversion of authentic reports," the "suppression of facts," and the "invention of fables"—a very heavy indictment, requiring, as one would think, some evidence to support it. I regret to say, however, that though Dr. Rumsey did not think it beneath him to make, what I believe to be, false charges, he did not think it necessary, or was unable, to adduce any proof of the charges so made. On the same occasion, and in the same address, he asserted that the Contagious Diseases Acts had never been abused, and that every allegation to the contrary, every charge of cruel indignity to women, was utterly without foundation. This appears to me a totally reckless and unjustifiable statement, inasmuch as it is perfectly impossible for Dr. Rumsey or any other man to say with truth that this or any other acts have or have not been abused. I hold contrary opinions on the Contagious Diseases Acts to Dr. Rumsey, and have strong reason to believe that innocent women have been fearfully abused under them, and that the greatest cruelties and injustice are habitually practised by the police and other officials engaged in carrying them out. But, Sir, it is not my intention on this occasion to controvert Dr. Rumsey's opinions or to criticise the intemperate language in which they are expressed. Had he confined himself to opinions, I should have passed by his remarks without note or comment, but when he uses his official position to misstate facts I feel bound, as one of the promoters of what he chooses to designate a fanatical movement, to show that he is either totally ignorant of the laws themselves or that he wilfully misrepresents them. Dr. Rumsey broadly asserts that under these Acts there is no authorised registration of prostitutes; I say there is. It is quite immaterial whether registration be specifically mentioned in the Acts or not, if, as part of the machinery for carrying them out, it is habitually practised. The slightest examination of the Acts will convince any unprejudiced person that they cannot be put in operation without systematic registration. How is it possible to know what women are to be periodically inspected unless a register of them is kept? How can it be known who absent themselves? Unless the names and addresses of the women be registered, how can the police call upon the women who have neglected the notice given them to attend inspection? Besides, how can women have their names taken off a register, if no register exists? Periodical examination implies registration, and cannot be carried on without it. Mr. Berkely Hill (Lord's Report, 2300) says, that in carrying out the Act, registration is necessary—not expedient, but necessary. In the appendix to the Lords' Report are returns from the metropolitan police, from which it appears that, wherever these laws are enforced, women suspected of being prostitutes are registered. Mr. Slogget, examining Surgeon under the Acts, says (see Blue-book, 115), producing a paper, "this return I vouch for, because the name of every women who appears before me is taken in a register." Modest women, bullied and cajoled by the police into signing papers they do not understand, are afterwards, on the strength of signatures thus fraudulently obtained, registered as common prostitutes. Perhaps Dr. Rumsey will contend that, although registered, it is not an authorised registration; and, therefore, to do away with all shadow of doubt, I will inform him, if he is not already aware of the fact, that the Secretary of State for War has issued an order to all magistrates, when the Acts are in force, directing that a complete register shall be kept by the police of all women residing within the district who come within its provisions. So much for registration. Are prostitutes certified under these Acts? In the Act of 1866, sect. 32, it is expressly stated that when the chief Medical officer of a certified Hospital certifies that the woman is free from disease (proof of which certificate shall lie on the woman—and how can she give this proof unless possessing the certificate?), the order subjecting her to periodical examination shall cease to operate." The following is a copy of the official certificate:—

"In pursuance of the within-mentioned Act, I hereby certify that the within-named woman is now free from contagious disease." Dated and signed by the visiting Surgeon. Can anything be more explicit or distinct? What further evidence of certification does Dr. Rumsey want? In the face of such proofs, what does he mean by stating that girls in England have no certificate of cure? Certificates bearing the Doctor's name, the girl's name, the date of examination, the notice of the next examination, with directions for attending it, have, to my knowledge, been given to registered women within a very recent period. Allow me to ask in what this differs from the Continental system of licensed prostitution? Is not such certificate as much a licence as the *carte* of a French brothel? No woman receives the certificate unless dismissed free from disease, or thought to be so by the Surgeon. Men know this. They constantly ask the women, "Where is your licence paper?—let me see it." Girls call it their "licence" or "pass." Now, if this be not licensing prostitution, by certifying women clean for hire at the public cost, I should like Dr. Rumsey to tell me what is. Dr. Rumsey assumes that, as followers of a "divine" calling, it is our duty to support cordially every well-considered measure for the cure of disease and the arrest of contagion. By "our" duty in the present instance, I presume he means State interference. If so, the proposition is by no means self-evident; and, indeed, there is a wide diversity of opinion about it. But, letting this pass, when he affirms, as though it were a logical deduction from the foregoing proposition, that the Contagious Diseases Acts are well-considered laws, and that these laws will stop contagion, he begs the whole question. It is notorious that in France, where this legislation has been at work for about a century, disease of a worse type is more prevalent than in England, where we have had no such interference. According to Leon Le Fort, it would require the examination of 40,000 more women in Paris alone to make any sensible impression on the disease. M. Lecour estimates the number of venereal patients in Paris (half the population of London) at 47,500 annually!—an enormous multitude, and far beyond anything we have in England without State help. But "is not this examination a protection to the individual and to society?" ask MM. Puche and Fournier. Out of 873 cases of syphilis occurring amongst men, 625 were contracted from women periodically examined, and warranted by the State clean for safe usage! Or take the evidence of Mr. Wolferstan, late House-Surgeon to the Royal Albert Hospital, Devonport, and therefore well qualified to give an opinion—"I am opposed to these Acts," says he, "because I believe they have failed to effect any material improvement in the health of

soldiers and sailors; that they have greatly increased clandestine prostitution, and with it disease amongst the civil population and illegitimacy!" It is a fact proved by the tables in Mr. Acton's book that disease has progressively increased on the Continent; and something very analagous has taken place in our own garrison towns—that disease has not diminished so rapidly under these Acts as before they were applied. It is useless to contend that English and foreign systems are entirely different. It is positively an insult to the common sense of the nation to parade a statement like this. The French is the model constantly referred to in the Parliamentary evidence, and their code is actually published in the report of the venereal commission as the guide and model for our imitation. The police spies, the arbitrary arrest on suspicion, compulsory periodical examination of healthy women merely suspected of prostitution by policemen, registration, legalisation of prostitution, and abrogation of the civil rights of all classes of females, are the essential features of both French and English systems. Even down to the most paltry details—such as the clean bill of health—it was exactly the same at first; but, as certain moralists who support the Acts thought this was going a little too far, it was decided to give the card to a policeman instead of a woman, just as if that made any difference. But, though substantially the same up to a certain point, the English law goes far beyond the French regulations. The French do not permit the registration of girls under age if their parents claim them. They do not interfere with married or with kept women. But the English law sanctions the registration, as common prostitutes, of children not 12 years of age, in spite of the reclamation of parents; of wives in spite of husbands; of servants and female operatives in spite of the intercession of their employers. These atrocities are constantly perpetrated by spies paid to carry out the acts, and the victims are English women. What is worse than anything I have stated, and almost demoniac in its cruelty, the English law actually makes it imperative on the Surgeon to instrumentally violate the woman brought to him, even when he believes they are modest and well conducted! (See Blue-book, Mr. Parson's evidence.)

In conclusion, Dr. Rumsey asserts that it would be a disgrace to our civilisation if this law be repealed. I say it is an eternal infamy that it should ever have been placed on the statute-book, and that the manhood and womanhood of this great country will not permit it to remain. The men, and women too, of this realm are better acquainted with this question than Dr. Rumsey believes. It is no use telling them that the subject is dirty—that they know; but they have thrown off all reticence, and ask, if the descriptions be dirty, what must the things described be? They are not to be alarmed by silly imputations of this kind; and, come what may of royal commissions and packed committees and secret debates, the opponents of these Acts, now numbering some hundreds of thousands, soon to be increased to millions, of grown, thoughtful, and respectable citizens, of all classes, trading and professional, will never cease their exertions until this abomination, this vile iniquity, this monstrous injustice, be utterly and thoroughly destroyed.

I am, &c.

Nottingham. THOMAS WORTH, M.R.C.S. and L.S.A.

COMMUNICATIONS have been received from—

Dr. LONG FOX; Dr. J. LITTLE; Dr. SHERIDAN MUSPRATT; Mr. W. HUNTER; Mr. BURDETT; Dr. MOCKETT; Dr. JOHN RAYNER; Dr. B. A. RUGG; Mr. A. E. BARRETT; Mr. THOMAS WOATH; Dr. JAMES STIRTON; Professor EASMUS WILSON; Dr. G. E. DAY; Dr. R. SHINGLETON SMITH; Mr. H. AANOTT; Mr. J. CHATTO; Dr. GEORGE JOHNSON; Dr. STEGOAL; Mr. W. MORRANT BAKER; Dr. FELCE.

BOOKS RECEIVED—

Australian Medical Gazette—Dr. William Stewart on Chloride of Ammonium in the Treatment of Hepatitis and Abscess of the Liver—Family Friend (third quarterly part)—Food Journal, September—Report on the Sanitary Condition of the St. Giles District during 1869—Practitioner, August—Dr. Lusk (New York) on the Origin of Diabetes—Dr. J. Abernethy Hicks' Authentic Narrative of the Unjust Proceedings of the Ongar Board of Guardians—Twelfth Report of the Medical Officer of the Privy Council, with appendix, 1869—Hardwicke's Science Gossip, September—Monthly Microscopical Journal, September.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Harrogate Advertiser—Bradford Daily Telegraph—Liverpool Mercury—Lynn Advertiser—New York Medical Gazette.

APPOINTMENTS FOR THE WEEK.

September 3. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

5. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

6. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

7. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

8. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

2. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 27, 1870.

BIRTHS.

Births of Boys, 1027; Girls, 979; Total, 2006.
Average of 10 corresponding weeks, 1860-69, 1924·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	726	667	1393
Average of the ten years 1860-69	655·5	629·5	1285·0
Average corrected to increased population	...	...	1414
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	6	22	1	4	...	1	1	29
North ...	618210	6	9	25	2	6	1	8	3	40
Central ...	383321	...	4	13	1	3	...	4	1	16
East	571158	3	4	17	...	5	...	4	4	53
South	773175	1	8	31	2	2	1	8	...	64
Total	2803989	11	31	108	6	20	2	25	9	202

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·772 in.
Mean temperature	57·3°
Highest point of thermometer	71·5°
Lowest point of thermometer	44·3°
Mean dew-point temperature	46·3°
General direction of wind	N.W.
Whole amount of rain in the week	0·70 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 27, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Aug. 27.	Deaths Registered during the week ending Aug. 27.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2006	1393	71·9	44·3	57·3	14·05	0·70	1·78
Portsmouth ...	122084	12·8	64	37	77·4	43·2	57·3	14·05	0·58	1·47
Norwich	81087	10·9	45	60	66·9	45·5	64·5	18·05	0·60	1·52
Bristol	171382	36·6	108	87	69·6	42·4	55·4	13·00	1·21	3·08
Wolverhampton ...	72990	21·5	51	39	69·1	42·3	54·1	12·28	1·75	4·45
Birmingham ...	369604	47·2	251	207	68·9	44·7	55·7	13·16	0·85	2·16
Leicester	97427	30·4	80	75	...	...	...	...	...	...
Nottingham ...	88888	44·5	46	41	70·5	39·6	54·9	12·72	0·33	0·84
Liverpool	517567	101·3	370	352	67·0	49·0	56·4	13·55	1·23	3·13
Manchester ...	374993	83·6	255	244	70·0	41·0	54·1	12·28	1·51	3·84
Salford	121580	23·5	101	61	70·0	40·0	53·2	11·78	1·66	4·21
Bradford	143197	21·7	85	96	66·6	45·0	54·9	12·72	0·68	1·72
Leeds	259527	12·0	250	201	67·0	45·0	55·3	12·94	0·44	1·12
Sheffield	247378	10·8	184	130	69·0	44·0	55·5	13·05	0·17	0·43
Hull	130869	36·7	94	86	...	...	...	...	...	...
Sunderland ...	100979	30·5	46	47	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	91	66	62·0	44·0	52·6	11·44	0·34	0·86
Edinburgh	178970	40·4	119	70	64·7	46·0	54·5	12·50	0·60	1·52
Glasgow	468189	92·5	366	267	70·5	42·7	55·5	13·05	0·62	1·57
Dublin (City, etc.*)	321540	33·0	124	139	71·1	39·8	57·4	14·11	1·00	2·54
Total of 20 Towns in United Kingd'm	7216325	33·8	4736	3698	77·4	39·6	55·8	13·22	0·84	2·13
Paris—Week ending August 27... ...	1889842	242	...	1120	...	...	...	...	...	...
Vienna—Week ending August 20 ...	622087	167	...	397	...	...	60·8	16·00	...	...
Berlin—Week ending August 25 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·772 in. The highest barometrical reading was 30·03 in. Sunday, and the lowest was 29·64 in. on Tuesday and Friday.

The general direction of the wind was N.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ON THE ART OF LEARNING.

By W. MOXON, M.D., F.R.C.P., &c.,
Assistant-Physician to Guy's Hospital.

Amidst all the progresses of all the arts, it is wonderful how little progress the art of learning makes.

The human race is not young at inquiry; and yet, if we set ourselves to impart what is taught as to methods of the art of learning, how little we find ready for our use! But every one of us sees that men differ extremely in the facility with which they gain knowledge, and some evidently have a better method than others. Now, the reason of this difference between them becomes a very important question to solve in the interest of the student.

Nobody knows when he began to learn. It is with each of us as it is with the race of us—the commencement of our acquirements is prehistoric. The race is accustomed to assume that those individuals who were nearer the beginning of affairs had more opportunity of insight into the origin of everything; and thus we believe that individuals, with means of knowledge similar to our own, experienced and reported the beginning of the knowledge of our race as known when it began. But each of us severally began to learn when practically there was no faculty of conscious judgment to guide the process, and we are very apt to go on learning with no greater use of such judgment than we began with. Now, it may be said that what served in the beginning may be trusted to continue equally useful; and there can be no doubt that the most advanced student must avail himself of the same service of his senses and memory as gave him knowledge in his infantile days, and also that his preferences for what he chooses or rejects will be guided by the greater or less pleasure which different questions create in him. But though this is so—and we must never fall into the mistake of supposing that we shall advance in learning by reflecting on our present stock of knowledge, but rather by getting fresh things to think about—yet we are, nevertheless, interested very much, as students, in the question why some of us get on so much better and faster than others.

In the first place, I will protest against the assumption that this difference is grounded in any difference in the powers of the individuals. Of course, we are aware that all differences in results show differences in powers, and we may wish anyone who is content with that conclusion joy of his discovery; but if any man who does not get on in his study will study why he does not get on, I believe he will soon find that it is because other things please him better than the getting of the knowledge, or else because he is sleepy—in other words, he fails because of a want of *interest in his subject*, and it is this interest that makes one man exceed another in power. Well, but how are we to get this interest? If we are so unhappily made as to have human forms and lack human sympathies and desires, or have a preponderance of such of those sympathies as belong to our animal relations to lower creatures, how are we poor abortions to keep up our interest in those noble inquiries that Medicine concerns? The asking these questions in such a way helps us a little; we feel that a high motive may help interest—the desire of being worthy our position. But it is not every one that is amenable to this kind of motive; many must have more practical guidance.

It is late in a man's life when he becomes aware how great is the power of desires. When he feels that "desires fail" (in youth he is too much occupied by one to miss another), then he knows how much of the power he once had was desire; and when he finds that his attention has blunted, and with it his memory and the scope of his thought and influence, then he sees that the affecting and consequent attending to a thing is a great force—aye, as much a natural force as gravitation, light, electricity. True—it may be said—and as much beyond his human will! That is the question. It is, I assure my readers, the essential question for the student's interest. Is desire beyond the control of the will? It certainly is in infancy, in the half conscious growth of knowledge I have before spoken of. But the turning-point when true study commences is when a youth no longer is led by unreflected motives, if I may so speak—I mean by motives that are not the subject of comparison and reflection—but when he can come to his own aid with such a knowledge of how motives act within him that he *shall place his will under them*, so as to have it bent by them to the result most desirable for his highest and best aim—I mean his permanent aim as contrasted with the whim or laziness of the moment. I presume that all who enter our Profession wish, when free from temporary excitement or fatigue, to be the best they can. I know there are men who can stoop to gain a great success in ridiculing the want of ultimate issue or of tangible or practical nature in achievements they don't like the motive or the labour of; but this is always a cheap and foolish false triumph, because, indeed, everything, as far as our plainly insufficient evidence goes, ends in nothing. Anyone who does not find his permanent aim to be for the highest end had better study the cultivation of desire, if there be such a thing.

We must distinguish clearly what it is that we require to desire in order to learn. No doubt all of us desire learning or knowledge—we all want to know; but fewer are those who desire the steps and means of knowing. Every one would like to have a thorough knowledge of the composition of things, but he perhaps can't bear chemistry, which empowers him to reach after it. As we grow in knowledge, so comes ever more and more the power to know, and only by that growth does the power come. The power to know is the fruit of knowing, as life of life, or as nascent oxygen of oxydation. It is not the desire or liking of the *result* that we must aim to obtain, but the liking of the *process*. Now, how is this to be got by those who imperfectly possess it or do not possess it at all? I will presently show. But it is yet, perhaps, well that we should recall some of the miseries with which a poor mental appetite receives, amidst nausea and sense of over-fulness, what it is forced to take; most of us know the feeling too well, but the feeling is the least of the misfortunes attendant on this cramming process. The worst of the misfortunes is the utter futility of what is so obtained. An over-taxed mind—by that I mean a mind striving without desire, whipped after what it should be longing for—such a mind is persuaded to what it reaches, not intelligently, but rather as impotence persuades the will, or as sleep persuades activity. It sinks into acquiescence rather than rises into concurrence with the truths it is reaching.

On the other hand, whoever moves with desire to know, is genius in what he thus obtains; even the poorest intellect is genius in what it so obtains. Its acquisition is the work of an inner factor identical with what is called genius, which is only a carrying on of the same pursuit to a rather higher level than ordinary people have it. On the other hand, knowledge which does not come through desire that is excited by knowledge already possessed, is mere incumbrance. It should not be called knowledge, it is only held by a sort of proxy. The knower knows that somebody knew it, and if that is the sort of his knowledge, he is but like a keeper of signboards who has none of the things they signify,—all his seeming riches are but *occupata paupertas*. These are the sort of men whose learning goes with a leading hope that the inquiry will soon be over, as if anxious, like Mr. Barnum, lest they should learn too much.

We should make a great mistake if we supposed that this kind of false learning is limited to a certain class of students. The truth is that everybody learns more or less in this way; some more, some fortunately less. Everything so learnt is a weight to carry, not an accession to strength; and if any large part of one's acquisition be of that kind, then his mental activity becomes seriously reduced, and can only be restored by the loss of the load, which is pretty certain not to be very long in happening, only that, instead of going clean away little bits of it stick where they are not useful nor ornamental.

The propositions I have advanced are, that inquiry or desire precedes every item of true knowledge, and that knowledge got through any *final* motive—I mean for an ultimate aim rather than the satisfaction of inquiry raised by the previous steps of acquirement—such knowledge is a burden. It adds to the weight you carry and not to the strength with which you carry other weights. It is not incorporated into your mental structure. It may cling to its place in you, but it is like so much extra fat in the omentum, requiring to enter a second

time into the circulation if it ever be assimilated to the living active structure of the mind.

The direction of inquiry to obtain what will be practically useful is a second consideration. Of course, I have not meant in what I have said that a man is to learn on aimlessly; rather, I mean that the aim to obtain what will stand him in good stead in practice is the secondary aim, and that he will not achieve it, unless, as a first condition, he is all the while getting what he is obtaining with lively interest in the successive steps. The direction of what he is to strive to acquire his course of study will give him, and the examinations he has to pass will require that he is "up" in these particular sorts of knowledge. What I am enforcing is an antecedent to all this. If any of us can succeed in getting, so to speak, thirsty and hungry after the morsels of knowledge, then he will have gained a sure means not merely of passing examinations, but of wielding influence when he has passed—of exercising that power in intercourse with his fellows which is essential to success in Professional life. Now, interest in any subject is wholly beyond the *direct* control of the will—indeed, the will is always a disturbing element in such interest, as many a student knows, who, when he wants badly to keep to the subject he is working at, has to support the pressure with which his attention refuses to be fixed on it, until the will is rather engaged with the attention than the attention with the subject to be studied.

One, then, instinctively may desire that some love should spring up between the anatomy and one's wayward thoughts, so as to draw them towards each other, as they cannot be driven.

My object in writing all this is to urge what I believe to be the one and only means of adding to or acquiring the desire or appetite for each item of knowledge whose necessity I have enforced; and that means is soon stated. It is this:—Interest is contagious. It is almost the only good thing that is so; and when our own interest is not up to the mark, we may excite it, or even acquire it, by mixing in the society of those who are earnestly engaged in what we are languidly following. Here every one's will can aid him. Let him be convinced that the influence of other minds helps his own to desire what they are seeking; and if he wants to desire what he does not desire, he has only to put himself along with some one who does desire it. You may see how surely and naturally this turns out any day on London-bridge, for if one man looks over as if he saw something in the water, several others are sure to go and look, till you see quite a company looking for they do not quite know what.

If a man thus puts himself in the way of interest it will carry him along; and he can do so voluntarily, as freely and certainly as a ship's master can put his vessel in the trade winds. There is no more important step for the man who is about to join a Medical school than the choice of the school he is to attach himself to. He will soon be following the general bent there, and he is scarcely responsible for its influence, once under it, it is so overpowering. But he can choose beforehand, and in a free and responsible way. This is the formula for choice:—*Choose the school where men, of the kind you like, study Medicine with warm interest.* As to the teachers, they are of secondary importance and use in this light—only valuable so far as they throw interest into their subjects, and encourage it in the society of students. Teachers speak from the stand-point of culture they have themselves attained, and learners receive with the light and experience they have on their part reached; and so the effect of the saying of the first on the mind of the second may be very different from the knowledge that woke the teacher's utterance, even supposing the learner's apprehension to be accurate enough to interpret exactly the proper import of the words employed, and supposing that he rightly conceives the teacher's signification as far as such a signification has a parallel in his own mind. See how different may be the scope, and colour, and bent of the nearest parallel in minds remote through age as well as character. On the other hand, our fellows who are around us pursuing the same stage of inquiry in the same subjects, if we join their company and enter into their spirit, impart a whole atmosphere of light—that is, if they are the right sort of company. They must of necessity be congenial company, or repulsion rather than attraction will be the result.

The best school is the school where the most companionable sort of men are also the most ardent students. In every school students' societies should maintain the interest of study for the common benefit, and the best test of a school's efficiency is the flourishing state of such a society. The number of men who pass high examinations is a less efficient test. Some schools let the common-place men alone to carry up the clever ones, but the common-place men make the majority.

RULES AND REGULATIONS

OF THE

EXAMINING MEDICAL BODIES IN ENGLAND.

SESSION 1870—71.

EXTRACTS FROM THE REGULATIONS OF THE GENERAL MEDICAL COUNCIL ON THE SUBJECTS OF PRELIMINARY EXAMINATION, OF REGISTRATION OF MEDICAL STUDENTS, 1870.

I.—PRELIMINARY EXAMINATION.

That Testimonials of Proficiency, granted by the National Educational Bodies according to the subjoined List, may be accepted, the Council reserving the right to add to or take from the List.

LIST OF EXAMINING BODIES WHOSE EXAMINATIONS FULFIL THE CONDITIONS OF THE MEDICAL COUNCIL AS REGARDS PRELIMINARY EDUCATION.

I. Universities of the United Kingdom.—Oxford: Examination for a Degree in Arts, Responsions, Moderations, Local Examinations (Senior), Certificate to include Latin and Mathematics. Cambridge: Examination for a Degree in Arts, Previous Examination, Local Examinations (Senior), Certificate to include Latin and Mathematics. Durham: Examination for a Degree in Arts, Examination for Students in their second and first years, Registration Examination for Medical Students, Local Examinations (Senior), Certificate to include Latin and Mathematics. London: Examination for a Degree in Arts, Matriculation Examination. Aberdeen, Edinburgh, Glasgow, and St. Andrew's: Examination for a Degree in Arts, Preliminary Examination for Graduation in Medicine or Surgery. Edinburgh: Examination of (Senior) Candidates for Honorary Certificates under the Local Examinations of the University of Edinburgh. Dublin: Examination for a Degree in Arts, Entrance Examination. Queen's University (Ireland): Examination for a Degree in Arts, Entrance Examination, Examination for the Diploma of Licentiate in Arts, Previous Examination for B.A. Degree.

II. Other Bodies named in Schedule (A) to the Medical Act.—Royal College of Surgeons of England: Examination conducted, under the superintendence of the College of Surgeons, by the Board of Examiners of the Royal College of Preceptors. The Society of Apothecaries of London: Examination in Arts. Royal College of Physicians, Edinburgh, Royal College of Surgeons, Edinburgh: Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined. Faculty of Physicians and Surgeons of Glasgow: Preliminary Examination in General Literature. Royal College of Surgeons in Ireland: Preliminary Examination, Certificate to include Mathematics. Apothecaries' Hall of Ireland: Preliminary Examination in General Education.

III. Examining Bodies, in the United Kingdom, not included in Schedule (A) to the Medical Act.—Royal College of Preceptors: Examination for a First-class Certificate.

IV.—Colonial and Foreign Universities and Colleges.—Universities of Calcutta, Madras, Bombay: Entrance Examination, Certificate to include Latin. M'Gill College, Montreal: Matriculation Examination. University of Toronto, King's College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada: Matriculation Examination. King's Collage, Nova Scotia: Matriculation Examination, Responsions. University of Fredericton, New Brunswick: Matriculation Examination. University of Melbourne: Matriculation Examination, Certificate to include all the subjects required by the General Medical Council. University of Sydney: Matriculation Examination. Codrington College, Barbadoes: 1. English Certificate for Students of two years' standing, specifying the subjects of Examination; 2. Latin Certificate, or "Testamur." Tasmanian Council of Education: Examination for the Degree of Associate of Arts, Certificates to include Latin and Mathematics. Christ's College, Canterbury, New Zealand: Voluntary Examinations, Certificate to include all the subjects required by the General Medical Council.

N.B.—A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient testimonial of proficiency.

That it be recommended to the Licensing Boards not to accept the Certificate of proficiency in General (preliminary) Education from any of the Bodies, the names of which are con-

tained in the list annually circulated, unless such Certificate testify that the Student to whom it has been granted has been examined in—1. English Language, including Grammar and Composition(a). 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry, first two books of Euclid. 4. Latin, including Translation and Grammar. And in one of the following optional subjects:—Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

That Students who cannot produce any of the Testimonials referred to in the first Recommendation be required to pass an Examination in Arts, established by any of the Bodies named in Schedule (A) to the Medical Act, and approved by the General Medical Council.

II.—REGISTRATION OF MEDICAL STUDENTS.

Every Medical Student shall be registered in the manner prescribed by the General Medical Council.

No Medical Student shall be registered until he has passed a Preliminary Examination, as required by the General Medical Council.

The commencement of the Course of Professional Study recognised by any of the Qualifying Bodies, shall not be reckoned as dating earlier than fifteen days before the date of Registration.

The Registration of Medical Students shall be placed under the charge of the Branch Registrars.

Every person desirous of being Registered as a Medical Student shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing; and shall produce or forward to the Branch Registrar a Certificate of his having passed a Preliminary Examination, as required by the General Medical Council, and a statement of his place of Medical study.

Each of the Branch Registrars shall supply to the several Qualifying Bodies, Medical Schools, and Hospitals in that part of the United Kingdom of which he is Registrar, a sufficient number of blank Forms of Application for the Registration of Medical Students.

The several Branch Councils shall have power to admit special exceptions to the foregoing Regulations as to Registration, for reasons which shall appear to them satisfactory.

A copy of the Register of Medical Students, prepared by each of the Branch Registrars, shall be transmitted, on or before December 31 in each year to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an Alphabetical List of all Students registered in the preceding year, and supply copies of such authorised List to each of the Bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to the several Medical Schools and Hospitals.

The several Qualifying Bodies are recommended not to admit after October, 1870, to the final Examination for a Qualification under the Medical Acts, any Candidate (not exempted from Registration) whose name had not been entered in the Medical Students' Register at least four years previously.

In the case of Candidates from other than Schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this Recommendation.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY Student in Medicine is required to pass all the Examinations for the degree of B.A., and to reckon the time of his Medical study from the Final Examination for Arts.

1. Candidates for the degree of B.M. are required to pass two Examinations, each of which is held yearly in full Michaelmas Term, usually at the end of November, due notice being given, in the usual manner, by the Regius Professor of Medicine. Each Examination is conducted by the Regius Professor of Medicine and three persons who have been admitted to Regency either as Masters of Arts or as Doctors, and who are nominated yearly by the Vice-Chancellor, subject to the approval of Convocation. Each Examination is conducted partly in writing, partly *vivâ voce*, and part of each is practical. The subjects of the first Examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine. The subjects of the Second Examination are the Theory and Practice of Medicine (including diseases of women and children), the Materia Medica, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every Candidate at this second Examination is to be examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus, or in one of those four, and in some modern author approved by the Regius Professor.(a) His knowledge of disease also is tested at the bedside, and he is required to make observations with the microscope or any other aids to diagnosis with respect to patients submitted to him.

Before a Candidate is admitted to the first of these two Examinations, he must have spent two years in Professional studies after having passed the Examinations required for the degree of B.A., unless he was placed in the First or Second Class in the School of Natural Science, in which case, if he received from the Public Examiners a special Certificate of his attainments in Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this Examination at once, and need not then be examined again in any science specified in such Certificate. Before a Candidate is admitted to the second Examination, he must have completed sixteen Terms from the date of the same *Testamur* and two years from the date of his *Testamur* in the first Medical Examination, and must deliver to the Regius Professor satisfactory Certificates of his attendance at some first-class Hospital. Every one intending to be a Candidate at either Examination is required to give the Professor notice of his intention a fortnight at least before the week in which the Examination is to be held.

No one from another University can be incorporated as a Graduate in Medicine without passing these two Examinations.

2. A Bachelor of Medicine wishing to proceed to the degree of Doctor is required to read publicly within the precinct of the Schools, in the presence of the Regius Professor, a Dissertation composed by himself on some Medical subject approved by the Professor, and to deliver to him a copy of it.

(a) The General Medical Council will not consider any Examination in English sufficient that does not fully test the ability of the Candidate—1st. To write a few sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition. 2nd. To write a portion of an English author to dictation. 3rd. To explain the grammatical construction of one or two sentences. 4th. To point out the grammatical errors in a sentence ungrammatically composed, and to explain their nature. 5th. To give the derivation and definition of a few English words in common use. Provided always that an Examination may be accepted as satisfactory that secures, on the part of the Candidate passing it, a sufficient grammatical knowledge of English.

UNIVERSITY OF CAMBRIDGE.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

Degree of Bachelor of Medicine.—Before a Student can become a Bachelor of Medicine he must have resided nine terms (three academical years).

Five years of Medical study are required, of which time six terms (two academical years) shall be spent in the University after the Student has passed the previous Examination. In the case of those who have graduated with honours as Bachelor of Arts, four years of Medical study are deemed sufficient, and four terms only of Medical study in the University are required.

The Previous Examination may be passed in the Lent term (at the latter end of March) by those who declare themselves as Medical Students, and have commenced residence in the University in the previous October. In addition to the Previous Examination, the Student is required to pass an Examination in Algebra at the same time or in some subsequent term.

There are three Examinations for M.B.

The first Examination is in—1. Mechanics and Hydrostatics; 2. Chemistry, with Heat and Electricity; 3. Botany. Before presenting himself for it the Student must have attended Lectures on Chemistry, including manipulations, and Botany. (Students who have obtained honours in any Tripos or passed the general Examination for B.A. are not required to be examined in Mechanics and Hydrostatics; and those who have passed the special Examination in Botany for B.A. are not required to be again examined in that subject.)

The second Examination is in—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacology. The Student must have completed two years of Medical study, the time of Medical study required to be spent in the University being included in these two years, and must also produce Certificates of attendance on Lectures on the Elements of Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, and Pathology; one year's Hospital Practice, and one season's Dissections.

(a) Such as Morgagni, Sydenham, Boerhaave.

Students who have obtained honours in the Natural Sciences Tripos, and have passed with credit the Examination in Chemistry, Botany, or Comparative Anatomy, are not required to be again examined in those subjects.

The third Examination is in—1. Pathology and Practice of Physic (two papers); 2. Clinical Medicine (in the wards of the Hospital); 3. Medical Jurisprudence. The Candidate must have completed the course of Medical study, and must produce Certificates of attendance on one Course of Lectures on each of the following subjects:—Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Midwifery, and of having attended Hospital Practice during three years.

After the third Examination an Act has to be kept, which consists in reading an original thesis, followed by a *viva voce* Examination on the subject of the thesis, as well as on other subjects of the Faculty.

The *Degree of Doctor of Medicine* may be taken three years after M.B. An Act has to be kept with *viva voce* Examination, and an essay has to be written extempore. A Master of Arts of four years' standing can proceed direct to M.D., provided he produces the same certificates and passes the same Examinations as for M.B.

Degree of Master in Surgery. — The Candidate must have passed all the Examinations for the Degree of M.B., and must produce Certificates of having attended a second Course of Lectures on Human Anatomy, one Course of Lectures on the Principles and Practice of Surgery, one year's Clinical Surgical Lectures, ten cases of Midwifery, a second season of Dissections, three years the Surgical Practice of a recognised Hospital, and of having been House-Surgeon or Dresser at such Hospital for six months. The subjects of the Examination are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery; and 4. Midwifery.

All the Examinations are partly in writing, partly *viva voce*, and take place in the Michaelmas and Easter Terms, an interval of two days being allowed to intervene between the first and second Examinations for M.B.

Attendance at the Hospital and Lectures in Cambridge is recognised by the Universities of Cambridge and London, and (for one year) by the College of Surgeons and the Society of Apothecaries.

UNIVERSITY OF LONDON.

BACHELOR OF MEDICINE.

Candidates for the Degree of Bachelor of Medicine are required—

1. To have passed the Matriculation Examination, or to have taken a Degree in Arts in either of the Universities of Sydney, Melbourne, or Calcutta (provided, in the last case, that Latin has been one of the subjects in which he has passed).

2. To have passed the Preliminary Scientific Examination.

3. To have been engaged in his Professional studies during four years subsequently to Matriculation or Graduation in Arts, at one or more of the Medical Institutions or Schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised Institutions or Schools in the United Kingdom.

4. To pass two Examinations in Medicine.

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.(a).

The Preliminary Scientific Examination takes place once in each year, and commences on the third Monday in July.

[Candidates for the Degree of M.B. are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular Medical Studies; and to devote a preliminary year to preparation for it according to the following programme:—*Winter Session:* Mechanical and Natural Philosophy; Chemistry (especially Inorganic); Zoology.—*Summer Session:* Practical Chemistry (Inorganic); Botany.]

No Candidate is admitted to this Examination until he has completed his seventeenth year, and has either passed the Matriculation Examination or taken a Degree in Arts in either of the Universities of Sydney, Melbourne, or Calcutta (provided, in the last case, that Latin has been one of the subjects in which he has passed); nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the examination.

(a) Candidates who matriculated previously to January, 1861, will not be required to pass the Preliminary Scientific (M.B.) Examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

The fee for this Examination is £5.

Candidates are examined in the following subjects(b):—Mechanical and Natural Philosophy, Inorganic Chemistry, Botany and Vegetable Physiology, Zoology.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the Preliminary Scientific (M.B.) Examination in all its subjects may be examined for Honours in (1) Experimental Physics, (c) (2) Chemistry, (3) Botany, and (4) Zoology, unless he have previously obtained an Exhibition in either of these subjects at the First B. Sc. Examination, in which case he shall not be admissible to the Examination for Honours in that subject.

If, in the opinion of the Examiners, any candidate of not more than twenty-two years of age, who has passed either the First B.Sc. Examination or the Preliminary Scientific (M.B.) Examination, shall possess sufficient merit, the Candidate who shall distinguish himself the most in Experimental Physics, the candidate who shall have distinguished himself the most in Chemistry, the Candidate who shall distinguish himself the most in Botany, and the Candidate who shall distinguish himself the most in Zoology, shall each receive an Exhibition of £40 per annum for the next two years, payable in quarterly instalments; provided that on receiving each instalment he shall declare his intention of presenting himself either at the Second B.Sc. Examination within two Academical years(d) from the time of his passing the First B.Sc. Examination, or at the First M.B. Examination within Three Academical years from the time of his passing the Preliminary Scientific (M.B.) Examination, as the case may be.

Under the same circumstances the First and Second Candidates for Honours in Experimental Physics shall each receive the Neil Arnott Bronze Medal.

FIRST M.B. EXAMINATION.

The First M.B. Examination takes place once in each year, and commences on the last Monday in July.

No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having passed the Preliminary Scientific Examination at least one year previously.(e). 3. Of having, subsequently to having passed the Matriculation Examination, or taken a Degree in Arts in one of the before-named Universities, been a Student during two years at one or more of the Medical Institutions or Schools recognised by this University, and of having attended a Course of Lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine, and Diseases peculiar to Women and Infants, Surgery, Medicine. 4. Of having, subsequently to having passed the Matriculation Examination, or taken a degree in Arts, dissected during two Winter Sessions. 5. Of having, subsequently to having passed the Matriculation Examination, or taken a degree in Arts, attended a Course of Practical Chemistry, comprehending Practical Exercises in conducting the more important processes of General and Pharmaceutical Chemistry; in applying Tests for discovering the Adulteration of articles of the Materia Medica, and the presence and nature of poisons; and in the examination of Mineral Waters, Animal Secretions, Urinary Deposits, Calculi, etc. 6. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the Preparation of Medicines.

(b) Candidates who shall pass in all the subjects of the Preliminary Scientific (M.B.) Examination, and also *at the same time* in the Mathematics of the First B.Sc. Examination, shall be considered as having passed both the Preliminary Scientific Examination, and also the First B.Sc. Examination, without being required to pay an additional fee; and Candidates who shall pass in all the subjects of the Preliminary Scientific (M.B.) Examination, and who shall have *previously* passed the First B.A. Examination, shall be admissible to the Second B.Sc. Examination.

(c) This Exhibition, having been provided by the liberal endowment of Dr. Arnott, will be entitled "The Neil Arnott Exhibition."

(d) By the term "Academical year" is ordinarily meant the period intervening between any Examination and an Examination of a higher grade in the following year; which period may be either *more* or *less* than a Calendar year. Thus the interval between the *First* Examinations in Arts, Science, and Medicine, and the *Second* Examinations of the next year in those Faculties respectively, is about sixteen months; whilst the interval between the Second B.A. Examination and the M.A. Examination of the next year, or between the Second B.Sc. Examination and the D.Sc. Examination of the next year, is less than eight months. Nevertheless, each of these intervals is counted as an "Academical year."

(e) Candidates who matriculated previously to January, 1861, will not be required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

These Certificates shall be transmitted to the Registrar at least *fourteen days* before the commencement of the Examination.

The fee for this Examination is £5.

Candidates are examined in the following subjects:—Anatomy, Physiology,(f) Materia Medica and Pharmaceutical Chemistry, Organic Chemistry.

The examinations are by printed papers and *viva voce*.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the First M.B. Examination may be examined for Honours in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, and (3) Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most in Anatomy, the Candidate who shall distinguish himself the most in Physiology, Histology, and Comparative Anatomy, and the Candidate who shall distinguish himself the most in Materia Medica, Pharmaceutical Chemistry, and Organic Chemistry, shall each receive an Exhibition of £40 per annum for the next two years, payable in quarterly instalments; provided that on receiving each instalment he shall declare his intention of presenting himself at the Second M.B. Examination within three Academical Years from the time of his passing the First M.B. Examination. Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a Gold Medal of the value of £5.

SECOND M.B. EXAMINATION.(g)

The Second M.B. Examination takes place once in each year, and commences on the first Monday in November. No Candidate is admitted to this Examination within two Academical Years of the time of his passing the First Examination, nor unless he have produced Certificates to the following effect:—1. Of having passed the First M.B. Examination. 2. Of having, subsequently to having passed the First M.B. Examination, attended a Course of Lectures on each of two of the subjects comprehended in the foregoing list (vide First M.B. Examination, § 3), and for which the Candidate had not presented Certificates at the First M.B. Examination. 3. Of having conducted at least Twenty Labours. Certificates on this subject will be received from any qualified Practitioner in Medicine. 4. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery. 5. Of having attended the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction, and Lectures on Clinical Medicine. N.B. The Student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5 may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same year or within different years; provided that in every case his attendance on Surgical and Medical Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during three months in the Wards of a Lunatic Asylum recognised by the University, with Clinical Instruction, may be substituted for a like period of attendance on Medical Hospital Practice.(h) 6. Of having, subsequently to the completion of his attendance on Surgical and Medical Hospital Practice, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months. 7. Of having acquired proficiency in Vaccination. Certificates on this subject will be received only from the authorised Vaccinators appointed by the Privy Council. The Candidate must also produce a Certificate of Moral Character from a teacher in the last School or Institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. These Certificates shall be transmitted to the Registrar at least *fourteen days* before the Examination begins.

(f) Any Candidate is allowed, if he so prefer, to postpone his Examination in Physiology from the First M.B. Examination at which he presents himself for examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such Candidate shall not be admitted to compete for honours on either occasion; and he shall not be admitted as a Candidate at the Second M.B. Examination until after the lapse of at least twelve months from the time of his passing the Examination in Physiology.

(g) Any Candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former Regulations, will be required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present Regulations; at which Examination he shall not be allowed to compete for Honours.

(h) The Senate regard it as highly desirable that Candidates for the Degree of M.B. should practically acquaint themselves with the different forms of insanity by attendance in a Lunatic Asylum.

Candidates are examined in the following subjects:—General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Obstetric Medicine, Forensic Medicine. The Examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The Examinations are by printed papers, and *viva voce*, with Practical Examinations in Clinical Medicine, Obstetric Medicine, and Forensic Medicine. N.B. Candidates will be expected to write prescriptions in Latin, without abbreviations.

The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the Second M.B. Examination may be examined for Honours in (1) Medicine, (2) Obstetric Medicine, and (3) Forensic Medicine.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most in Medicine shall receive £50 per annum for the next two years, with the style of University Scholar in Medicine.

Under the same circumstances, the Candidate who shall distinguish himself the most in Obstetric Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Obstetric Medicine.

Under the same circumstances, the Candidate who shall distinguish himself the most in Forensic Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine.

Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a Gold Medal of the value of £5.

BACHELOR OF SURGERY.

The Examination for the Degree of Bachelor of Surgery takes place once in each year, and shall commence on the Tuesday following the fourth Monday in November.

No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Medicine in this University. 2. Of having attended a Course of Instruction in Operative Surgery, and of having operated on the Dead Subject.

These Certificates shall be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The Examinations comprise—Surgical Anatomy and Surgical Operations, by printed papers; Examination and Report on Cases of Surgical Patients; Performance of Surgical Operations upon the Dead Subject; Application of Surgical Apparatus; *viva voce* Interrogation.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the B.S. Examination may be examined for Honours in Surgery. The Examination is conducted by means of Printed Papers.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most shall receive £50 per annum for the next two years, with the style of University Scholar in Surgery.

Under the same circumstances, the First and Second Candidates shall each receive a Gold Medal of the value of £5.

MASTER IN SURGERY.

The Examination for the Degree of Master in Surgery shall take place once in each year, and shall commence on the fourth Monday in November.

No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Surgery(i) in this University. 2. Of having attended, subsequently to having taken the Degree of Bachelor of Surgery in this University—*a*. To Clinical or Practical Surgery during two years in a Hospital or Medical Institution recognised by this University; *b*. Or to Clinical or Practical Surgery during one year in a Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the practice of his Profession; *c*. Or of having been engaged during five years in the practice of his Profession, either before or after taking the Degree of Bachelor of Surgery in this University. One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those

(i) Candidates who have obtained the Degree of Bachelor of Medicine previously to 1866 will be admitted to the Examination for the Degree of Master in Surgery without having taken the Degree of Bachelor of Surgery; and in the case of such Candidates, the attendance on Surgical Practice required by Regulation 2 may commence from the date of the M.B. Degree.

Candidates who at the B.S. Examination have been placed in the First Division. 3. Of Moral Character, signed by two persons of respectability.

These Certificates shall be transmitted to the Registrar at least fourteen days before the Examination begins.

The Fee for the Degree of Master in Surgery is £5.

The Examination shall be conducted by means of printed papers and *viva voce* interrogation.

Candidates shall be examined in the following subjects:—Logic and Moral Philosophy. (Any Candidate who has taken the Degree either of B.A., B. Sc. or M.D. in this University is exempted from this part of the Examination; and any Candidate who has passed the Second M.B. Examination may at any subsequent M.S. Examination present himself for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from Examination in that subject when he presents himself to be examined for the Degree of Master in Surgery.) Surgery.

The Examination is conducted by printed papers and *viva voce* interrogation, and includes the dissection of a Surgical Region or performance of Surgical operations and Practical Examination in Clinical Surgery.

DOCTOR OF MEDICINE.

The Examination for the Degree of Doctor of Medicine takes place once in each year, and commences on the fourth Monday in November. No Candidate is admitted to this Examination unless he have produced Certificates to the following effect.—1. Of having taken the Degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the Degree of Bachelor of Medicine in this University—*a*. To Clinical or Practical Medicine during two years in a Hospital or Medical Institution recognised by this University; *b*. Or to Clinical or Practical Medicine during one year in a Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the practice of his Profession; *c*. Or of having been engaged during five years in the practice of his Profession, either before or after taking the Degree of Bachelor of Medicine in this University. (One year of attendance on Clinical or Practical Medicine, or two years of practice, will be dispensed with in the case of those Candidates who at the Second M.B Examination have been placed in the First Division.) 3. Of Moral Character, signed by two persons of respectability.

These Certificates shall be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The fee for the Degree of Doctor of Medicine shall be £5.(k)

The Examination is conducted by means of printed papers and *viva voce* interrogation, and includes the following subjects:—Logic and Moral Philosophy. (Any candidate who has taken the Degree either of B.A., B.Sc., or M.S. in this University is exempted from this part of the Examination; and any Candidate who has passed the second M.B. Examination may present himself at any subsequent M.D. Examination for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from Examination in that subject when he presents himself to be examined for the Degree of Doctor of Medicine.) Medicine, including a commentary on a case of Medicine or Obstetric Medicine. Practical Examination in Clinical Medicine.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most in Medicine at the Examination for the Degree of Doctor of Medicine shall receive a Gold Medal of the value of £20.

UNIVERSITY OF DURHAM.

For Registration.—No one shall be held to be a Student in Medicine who has not been registered in a register kept for that purpose. No one shall be so registered unless he produce Certificates of age and character, and have passed one of the preliminary Examinations recommended by the General Medical Council. Every registered Student shall receive from the Registrar a Certificate of his Registration, for which he shall pay the sum of five shillings. The Registration Examination shall be directed to the rudiments of Religion, Literature, and Science; and shall be conducted by two or more Examiners nominated by the Warden. The Registration Examination shall be held twice a year, viz.:—Shortly before the Winter Session, and shortly before the Summer Session, of the College of Medicine, Newcastle-upon-Tyne. The Registration Examination will begin at Durham, on Tuesday, September 20, 1870, and on April 18, and September 19, 1871, at 9 a.m. on each day. Application to be made to Arthur Beanlands, Esq., Durham, at least one month before the day of Examination, to whom also Candidates must, at the same time, send the Examination fee, £1, and the Certificates of age and character, and specify the optional Subject in which he wishes to be examined. Every one who passes that Examination shall receive a Certificate signed by the Examiners without further payment. The Warden shall have authority, in case of urgency, to appoint an Extraordinary Registration Examination at any time. Any one who presents himself for such Extraordinary Examination shall pay the sum of £2.

Subjects of Examination for September 20, 1870.—Necessary Subjects:—The History contained in the Acts of the Apostles; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions: Algebra, including Simple Equations; Euclid, Books I. and II.; Latin Grammar, with Virgil, Æneid, Lib. I. and II., and one of the following optional subjects:—Greek Grammar, with Xenophon's Memorabilia; French Grammar, with Voltaire's Charles XII.: German Grammar, with Goëthe's Dichtung und Wahrheit, Book 1.; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics.

Subjects of Examination for April 18, *and September* 19, 1871.—Necessary Subjects:—The History contained in the Acts of the Apostles; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I. and II.; Latin Grammar, with—In April, Cæsar, De Bello Gallico, Lib. I. and II.; in September, Virgil, Æneid, Lib. I. and II.; any one of the following subjects:—Greek Grammar, with Xenophon's Memorabilia; French Grammar, with Voltaire's Charles XII.; German Grammar, with Goëthe's "Dichtung und Wahrheit," Book I.; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics. The following Examinations are also accepted as qualifications for Registration:—1. Durham Senior Examination of Persons not Members of the University. For this, Candidates are requested to satisfy the Examiners in Latin, Algebra (including Simple Equations), Euclid (Books I. and II.); and one of the four following subjects:—Greek, French, German, Mechanics, Hydrostatics, and Pneumatics. 2. Durham Examinations for Students in Arts in their first year.

The next Senior Examination of persons not Members of the University will commence at Durham, on Monday, June 12, 1871, at 2 o'clock.

For Licences and Degrees.—Candidates for the Degrees of M.C., M.B., and M.D., in the University of Durham, are required to reside for three Terms at the University, either in Durham, or in Newcastle.

For the Licence in Surgery.—The Regulations are the same as those for the Licence in Medicine, except that the Final Examination is directed more particularly to Surgery, and may, or may not be passed at the same time as the Final Examination for the Licence in Medicine.

For the Licence in Medicine.—A Candidate must produce Certificates of Registration as a Student in Medicine, of having, after Registration, spent four years in Medical Study, at one or more of the Schools recognised by the Licensing bodies named in Schedule (A) of the Medical Act, 1858, or one year at the University, either in Durham or at Newcastle, and four years at a Medical School as above, of good moral conduct, and of having attained the age of twenty-one years. There are two Examinations; one after the second Winter Session, the other after the fourth Winter Session, of Medical Study. The first is directed to Anatomy, Physiology, and Chemistry. The second to the other branches of Medical education, and more particularly to the Practice of Medicine.

For the Degree of Master in Surgery.—A Candidate must be a Licentiate in Surgery, and also a Licentiate in Medicine, of the University, and of the standing of eighteen terms (six years) at least from the date of his registration at Durham, and of three terms at least from the date of his admission to the Licence in Surgery. He must be a Bachelor of Arts, or have passed the final Examination for B.A., or one equivalent thereto. He must have spent one year at least in Medical and Surgical Study in the University, either at Durham or at Newcastle, or at some School of Medicine in connexion with the University, and have passed the Examination for the Degree of Master in Surgery. The Examination for this Degree is directed chiefly to the Practice of Surgery.

For the Degree of Bachelor in Medicine.—A Candidate must have obtained a Degree in Arts of the University of Durham, or have passed the final Examination for the Degree of

(k) This fee will continue to be £10 to all such as, having taken their M.B. Degree under the former regulations, shall not have paid the fee of £5 at the Preliminary Scientific Examination.

Bachelor of Arts, or one equivalent thereto, must be of the standing of three Terms at least as a Licentiate in Medicine of the University, and of the standing of eighteen terms (six years), from the date of his Matriculation at Durham, and have passed the Examination for the Degree of Bachelor of Medicine. A Candidate must write an Essay on some Medical subject, selected by himself and approved by the Professor of Medicine, and pass an Examination thereon, including the collateral Medical Sciences involved in the subject of the Essay.

For the Degree of Doctor in Medicine.—A Candidate must be of the standing of three Terms at least as a Bachelor in Medicine of the University of Durham, and of the standing of twenty-one Terms (seven years), from the date of his Matricula- at Durham, and have passed the Examination for the Degree of Doctor in Medicine. The Examination is similar to that for the Degree of Bachelor in Medicine.

The Examinations for the Licences and Degrees in Medicine and Surgery are conducted in Newcastle. Those for the Licences: 1. By printed Papers of Questions. 2. Practically in Anatomy, Physiology, Chemistry, Materia Medica Pharmacy, Surgery, Medicine, Midwifery, and Medical Jurisprudence. 3. *Viva voce* on all the subjects. The Examinations are held, except in special cases, yearly in the month of June, at the close of the Easter Term, and are open to Members of the University. The next Examination will begin on Monday, June 14, 1871, at 9 a.m. The Licences and Degrees are conferred in Convocation at Durham. The Examiners are appointed yearly by the Warden of the University, and approved by Convocation.

Expenses at Durham.—Entrance Fees: Admission Fee to University, £2; Caution Money, at University College, £20; (a) Caution Money, at Bishop Hatfield's Hall, £15.

Terminal Expenses at University College—Three Terms in the year (eight months): Rent of room, unfurnished, from £4 to £5; College Commons, comprising dinner and meat luncheon (per week), 14s.; service, gas, and detriments, £3 15s.; coals, £1 1s. The average annual expenses at the College, including those of the University, may be estimated at £80 to £85.

Terminal Expenses at Bishop Hatfield's Hall—Three Terms in the year (Eight Months): A set of rooms, furnished (with the exception of linen), £6 6s. to £7 7s.; Commons or board, including servants and all domestic charges (except washing) for 10⅔ weeks, at £1 1s., £11 4s.; Tuition fees, library, etc., £6.

Fees for Examination and Degrees: For Senior Middle Class Examination, £1; for Examination at the end of first year, £1; for Registration Examination, £1; for extraordinary Registration Examination, £2; for Registration, 5s.; for a Certificate in Chemistry, 10s.; for each Public Examination in Medicine or in Surgery, £1; for a Licence in Medicine, £3; for a Licence in Surgery, £3; for a Degree of Master in Surgery, £6; for a Degree of Bachelor in Medicine, £6; for a Degree of Doctor in Medicine, £6.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

BYE-LAWS RELATING TO MEMBERS.

1. The Members of the College, present and future, are alone eligible to the Fellowship. They have the use of the Library and Museum, and are admitted to all Lectures, but they are not entitled to any share in the government, or to attend or vote at General Meetings of the Corporation. 2. All persons who have been admitted before February 16, 1859, Licentiates of the College, are entitled to be admitted Members of the College. 3. Any Extra-Licentiate who shall have produced Testimonials as to character satisfactory to the Censors, and shall have assured the said Censors that he is not engaged in the practice of Pharmacy, and who shall comply with such other Regulations as are required by the Bye-laws of the said Corporation, may be proposed to the College to be admitted a Member of the College. 4. Any person who shall have satisfied the College touching his acquirements in General Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the Bye-laws and Regulation of the College, may be proposed to the College to be admitted a Member of the College. 5. Every Candidate for the Membership of the College, under the last Bye-law, who shall have commenced his Professional studies after September, 1861, shall satisfy the Censors' Board that previously to the commencement of his Professional studies he has obtained a Degree in Arts from some University of the United Kingdom or of the Colonies, or from some other University specially recognised by the Medical Council, or that he has passed Examinations equivalent to those required for a Degree in Arts. All other Candidates for Membership shall be examined on the subjects of General Education by the President and Censors of the College. 6. Every Candidate for Membership shall furnish proof that he has attained the age of 25 years. 7. Every Candidate shall produce a Testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a Member of the College. 8. Every Candidate (*except such as shall be admissible under the provisions of Sections* 15 *and* 16) shall produce proof of his having been engaged in Professional studies during a period of five years, of which four years at least shall have been passed at a Medical School or Schools, recognised by the College. 9. Every Candidate (*except such as shall be admissible under the provisions of Sections* 15 *and* 16) shall produce evidence, satisfactory to the Censors' Board, of his having fulfilled the Course of Study prescribed for Licentiates of the College (see below) with the following exceptions:—(1.) The Candidate for Membership must have attended Lectures on Clinical Medicine during three Winter and three Summer Sessions, the attendance not to commence earlier than the second Winter Session, at a recognised Medical School. (2.) He must have attended diligently during three Winter Sessions and three Summer Sessions the Medical Practice, *and during three Winter Sessions and two Summer Sessions the Surgical Practice*, of an Hospital containing at least 100 beds, and have been engaged during six months in the Clinical study of Diseases peculiar to Women, and have served the office of Clinical Clerk in the Medical Wards during at least six months. [The requirements printed in italics apply to Candidates who commenced their Professional education in the United Kingdom on or after October 1, 1867, and to Candidates who commenced their Professional education at a recognised Foreign or Colonial School on or after October 1, 1868.] 10. Every Candidate who has prosecuted his studies abroad, whether in part or to the full extent required by the proceeding Bye-law (*except such has shall be admissible under the provisions of Section* 16), shall, nevertheless, bring proof of his having attended, during at least twelve months, the Medical Practice of an Hospital in the United Kingdom containing at least 100 beds. 11. If the Censors' Board doubt the sufficiency of the Certificates and Testimonials produced by any Candidate, or his fitness, in any respect, for admission to Examination, they may submit the case to a General Meeting of the Fellows. 12. No Candidate shall be admitted to Examination who is engaged in trade; or who dispenses medicine, or makes any engagement with a Chemist, or any other person, for the supply of medicines; or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues. 13. No Candidate shall be admitted to Examination who refuses to make known, when required by the President and Censors, the nature and composition of any remedy he uses. 14. Every Candidate (except in cases specially exempted), under Sections 15 and 16, shall give proof of his acquirements by written answers to questions placed before him, and shall be examined *viva voce* at three separate Examinations, and shall be approved by the President and Censors, or by the major part of them. 15. Any Candidate who has already obtained the Degree of Doctor or Bachelor of Medicine at a University in the United Kingdom, wherein the Courses of Study, and the Examinations to be undergone by the Students previously to graduation, shall have been adjudged by the Censors' Board to be entirely satisfactory, shall be exempt (if the Censors shall think fit) from all or any parts of the Examinations hereinbefore described, except such as relate to the Third or Pass Examination; the nature and extent of which Examination shall, in the case of each Candidate, be determined by the Censors' Board. Every Candidate for the Membership will, however, be required to translate into English a passage from a Latin author, and he will have the opportunity of showing a knowledge of Greek, or of one or more of the modern European languages. 16. If any Candidate who has attained the age of forty years shall produce Testimonials not merely satisfactory as to his moral character and conduct, and his general and Professional acquirements, but further showing that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a Medical Practitioner, the Censors' Board, having well weighed and considered these Testimonials, may, if they see fit, submit them to the Fellows at a General Meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the Candidate shall be

(a) This is returned to the Student on leaving the University, and is a Guarantee Fund against loss by terminal defalcations.

admitted to Examination, which shall, in every such case, be as full and complete as the Censors may deem sufficient. 17. Any Candidate who shall produce satisfactory evidence of having passed an Examination on Anatomy and Physiology, conducted by any of the Bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on the subjects of the Primary Examination.(a) 18. Any Candidate who shall have obtained a Degree in Surgery, at a University in the United Kingdom, after a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and the Principles and Practice of Surgery. 19. Any Candidate who shall have passed the Examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery.

The Fee to be paid for admission as a Member of the College shall be 30 guineas.

BYE-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE MEMBERSHIP.

Every Candidate for the Membership of the College (except such as shall be admissible under the provisions of Sections 15 and 16 of the Bye-laws) will be required to pass the following Examinations;—

The First Examination, on Anatomy and Physiology, will be conducted on successive days, as follows:—On the First day: *Evening*, from Seven to Ten, by written questions. On the Second day: *Evening*, commencing at Seven o'clock, *vivâ voce*, on Dissections and Preparations.

The Second Examination will be conducted on successive days, as follows:—On the First day: *Evening*, from Seven to Ten, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. On the Second day: *Morning*, the Candidate's practical knowlegde will be tested, either at the College or in the Surgical Wards of an Hospital. *Afternoon*, from One to Four, on *Materia Medica*, and on *Chemistry in its applications to Pathology, Pharmacy, and Toxicology. This Examination will be conducted partly by written questions and partly in a practical manner. Evening*, commencing at Seven o'clock, by written questions on Midwifery and the Diseases peculiar to Women.

The Third or Pass Examination will be conducted on successive days, as follows:—On the First day: *Afternoon*, from Two to Six, by written questions on Medical Anatomy, and on the Principles of Medicine. On the Second day: *Afternoon*, from Two to Six, by written questions on the Practice of Medicine, including the *Principles of Public Health*, and on Psychological Medicine. On the Third day: The Candidate's practical knowledge will be tested, either at the College or in the Medical Wards of an Hospital. On the Fourth day: *Afternoon*, commencing at Three o'clock, *vivâ voce*, on Medical Anatomy, and on the Principles and Practice of Medicine.

(The regulations in italics apply to Candidates who commenced their Professional Education in the United Kingdom on or after October 1, 1865; and to Candidates who commenced their Professional Education at a recognised Foreign or Colonial School on or after October 1, 1866.)

Examinations of Candidates for the Membership of the College will take place during 1870-71, in the months of October, December, February, April, and July.

Candidates will not be admitted to the First Examination until after the termination of the second Winter Session of Professional Study at a recognised Medical School, nor to the Second Examination until after the termination of four years of Professional Study, nor to the Third or Pass Examination until after the completion of the required Course of Professional Study.

Every Candidate must give fourteen days' notice in writing to the Registrar of the College of his intention to present himself for Examination, at the same time transmitting the following Certificates:—*For the Primary Examination.*—Evidence of having passed an Arts Examination; of having been duly registered as a Medical Student; and of having completed the second Winter Session of Professional Study at a recognised Medical School. *For the Second Examination.*—Evidence of having completed four years of Professional Study; of having attained the age of twenty-one years; of Instruction and Proficiency in the Practice of Vaccination; and of having attended not less than twenty labours. *For the Pass Examination.*—Proof of having attained the age of twenty-five years; a Testimonial from a Fellow or Member of the College; evidence of having completed the required course of Professional Study.

(a) *See* Regulations relating to the Examinations.

LICENTIATES.

The College will, under its Charter, grant Licences to practise Physic, including therein the Practice of Medicine, Surgery, and Midwifery (which Licences are not to extend to make the Licentiates Members of the Corporation) to persons who shall conform to the following Bylaws:—

Every Candidate for the College Licence (except when otherwise provided by the Bye-laws) is required to produce satisfactory evidence to the following effect:—1. Of having attained the age of twenty-one years. 2. Of moral character. 3. Of having passed, before the commencement of Professional Study, an Examination in the subjects of General Education recognised by the College. 4. Of having been registered as a Medical Student in the manner prescribed by the General Medical Council. 5. Of having been engaged in Professional Studies during four years, of which at least three Winter Sessions and two Summer Sessions shall have been passed at a recognised Medical School or Schools, and one Winter Session and two Summer Sessions in one or other of the following ways:—*a.* Attending the practice of a Hospital or other Institution recognised by the College for that purpose; *b.* Receiving instruction as the pupil of a legally qualified Practitioner, holding any Public Appointment which affords opportunities, satisfactory to the Examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery; *c.* Attending Lectures on any of the required subjects of Professional Study at a recognised place of instruction. (Professional Studies commenced *before* the Candidate shall have passed an Examination in the subjects of General Education will not be recognised by the College.) 6. *Of having attended, during three Winter Sessions and two Summer Sessions, the Medical and Surgical Practice at a recognised Hospital or Hospitals;* and of having been engaged during six months in the Clinical Study of Diseases peculiar to Women. 7. Of having studied the following subjects:—Anatomy (with dissections) during two Winter Sessions; (b) Physiology during two Winter Sessions; Chemistry during six months; Practical Chemistry during three months; Materia Medica during three months; Practical Pharmacy during three months (by Practical Pharmacy is meant Instruction in the Laboratory of a Registered Medical Practitioner or of a Member of the Pharmaceutical Society of Great Britain, or of a Public Hospital or Dispensary recognised by the College); Botany during three months (this Course of Lectures may be attended prior to the commencement of Professional Studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his Preliminary Examination will be exempt from attendance on this Course); Morbid Anatomy during six months (this includes attendance and instruction in the Post-mortem Room during the period of Clinical Study); Principles and Practice of Medicine during two Winter Sessions (it is required that the Principles of Public Health should be comprised in this Course of Lectures, or in the Course of Lectures on Forensic Medicine. The attendance on these Lectures must not commence earlier than the second Winter Session at a recognised Medical School); Principles and Practice of Surgery *during two Winter Sessions* (the attendance on these Lectures must not commence earlier than the second Winter Session at a recognised Medical School); Clinical Medicine *during two Winter Sessions and two Summer Sessions*(b) (the attendance on these Lectures must not commence until after the first Winter Session at a recognised Medical School); Clinical Surgery *during two Winter Sessions and two Summer Sessions* (the attendance on these Lectures must not commence until after the first Winter Session at a recognised Medical School. By Clinical Medicine and Clinical Surgery are meant special Study and Instruction at the bedside, with Lectures on Cases); Midwifery and the Diseases peculiar to Women during three months (Certificates must also be produced of attendance on not less than twenty Labours, and of Instruction and Proficiency in Vaccination); Forensic Medicine during Three Months. 8. Of having passed the Professional Examinations. (The requirements printed in italics apply to Candidates who commenced their Professional education in the United Kingdom on or after October 1, 1867; and to Candidates who commenced their Professional education at a recognised Foreign or Colonial School on or after October 1, 1868.)

(b) The Winter Session comprises a period of six months, and the Summer Session a period of three months.

Any Candidate who shall produce satisfactory evidence of having passed an Examination on Anatomy and Physiology, conducted by any of the Bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on the subjects of the Primary Examination.(c) Any Candidate who shall have obtained a Degree in Medicine at a University recognised by the College, after a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on the subjects of the Primary Examination. Any Candidate who shall have obtained a Degree in Surgery at a University in the United Kingdom, after a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. Any Candidate who shall have passed the Examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. Any Candidate, being a "Registered Medical Practitioner," whose Qualification or Qualifications shall have been obtained before the 1st day of January, 1861, having been, with the consent of the College, admitted a Candidate for the Licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the Professional Examinations as his Qualifications may seem to the Examiners to render in his case unnecessary.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

BYE-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE LICENCE.

Every Candidate for the College Licence, before he is admitted to examination, will be required to sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) to the Medical Act.

The First Examination, on Anatomy and Physiology, will be conducted on successive days, as follows:—On the first day: Evening, from 7 to 10, by written questions. On the second day: Evening, commencing at 7 o'clock, *viva voce*, on Dissections and Preparations. The Second, or Pass Examination will be conducted on successive days, as follows:—On the first day: Evening, from 7 to 10, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. On the second day: Morning—The Candidate's practical knowledge will be tested, either at the College or in the Surgical Wards of an Hospital. Afternoon, from 1 to 4, on Materia Medica, and on Chemistry in its applications to Pathology, Pharmacy, and Toxicology.(d) This Examination will be conducted partly by written questions and partly in a practical manner. Evening, commencing at 7 o'clock by written questions on Midwifery and the Diseases peculiar to Women. On the third day: Evening, from 7 to 10, by written questions on Medical Anatomy, and on the Principles and Practice of Medicine, including the Principles of Public Health. On the fourth day: Morning—The Candidate's practical knowledge will be tested, either at the College or in the Medical wards of an Hospital. Evening, commencing at 7 o'clock, *viva voce*, on the Principles and Practice of Medicine, Surgery, and Midwifery.

Candidates will not be admitted to the First Examination until after the termination of the second Winter Session of Professional Study at a recognised Medical School, nor to the Second or Pass Examination until after the termination of four years of Professional Study.

After October, 1870, the College will not admit to the Pass Examination any Candidate (not exempted from Registration) whose name had not been entered in the Medical Students' Register at least four years previously.

(c) *See* Regulations relating to the Examinations.

(d) Candidates who shall have passed the First Examination for the Licence at this College before October 1, 1867, are exempted from re-examination on Materia Medica and on Chemistry in its application to Pharmacy.

Examinations of Candidates for the College Licence will take place, commencing as follows:—

1st Examination. 1871.		2nd or Pass Examination.	
Monday	February 6.	Monday	February 13.
"	April 3.	"	April 10.
"	July 3.	"	July 10.
"	October 2.	"	October 9.
"	December 4.	"	December 11

Any Candidate who shall be rejected at the First Examination will not be readmitted to examination until after the lapse of three months, and will be required to produce a Certificate of the performance of Dissections or other Professional Study satisfactory to the Examiners during that time.

Any Candidate who shall be rejected at the Second or Pass Examination will not be readmitted to examination until after the lapse of six months, and will be required to produce a Certificate of attendance on the Practice of a recognised Hospital during that time, and also of attendance on Clinical Lectures.

Every Candidate intending to present himself for examination is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following Certificates:—For the First Examination: Evidence of having passed an Arts Examination; of having been duly registered as a Medical Student; and of having completed the second Winter Session of Professional Study at a recognised Medical School. For the Second or Pass Examination: Evidence of having completed four years of Professional Study; of having attained the age of twenty-one years; of Instruction and Proficiency in the Practice of Vaccination; and of having attended not less than twenty labours. A testimonial of moral character is required of every Candidate.

Blank forms of the required Certificates of Attendance on Hospital Practice and on Lectures may be obtained on application at the College.

The Fee for the College Licence is Fifteen Guineas, of which Five Guineas are to be paid on admission to the First Examination, which Fee will not be returned to any Candidate rejected at this examination, but will be allowed in the Fee for the Licence, and he will be admitted to one subsequent First Examination without the payment of an additional Fee.

Any Candidate who shall be rejected at the Second or Pass Examination will have the Fee paid on admission to this examination returned to him, less Three Guineas.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REGULATIONS RELATING TO THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF FELLOW.

SECTION I.—*Preliminary Examination.*—Candidates will be required to produce one or other of the following Certificates or Testamurs, viz.:—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised, viz.:—Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrews. Calcutta, Madras, and Bombay. Canada: M'Gill's College, Montreal; and Queen's College, Kingston. A Certificate or Testamur of Graduation in Arts at a Foreign University, on the special recommendation of the Court of Examiners, approved by the Council. 2. Of having passed such examinations in Arts as shall from time to time be required for graduation in Medicine by a University recognised for this purpose. The following are the Universities at present recognised, viz.:—Oxford, Cambridge, Dublin, London, and Durham. 3. Candidates who shall not be able to produce one or other of the foregoing certificates will be required to pass an examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of the Council of the College.

The following are the subjects of the Examination (No. 3) during the year 1870, viz.:—

Part I. Compulsory subjects.—1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition; such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of vulgar fractions, and of decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History—that is, the succession of the sovereigns and the leading events of each reign. 8. Mathematics. Euclid, Books I. and II. Algebra to simple equations inclusive. 9. Translation of a passage from the second book of Cæsar's Commentaries "De Bello Gallico." 10. Translation of a passage from the first book of the Anabasis of Xenophon. 11. Translation of a passage from X. B. Saintine's "Picciola."

Part II. Optional Subjects.—Papers will also be set on the following four subjects, and each candidate will be required to offer himself for examination on one subject, at his option:—1. Translation of a passage from Schiller's

"Wilhelm Tell." Besides these translations into English, the candidate will be required to answer questions on the Grammar of each subject, whether compulsory or selected. 2. Mechanics. The questions will be chiefly of an elementary character. 3. Chemistry. The questions will be on the elementary facts of Chemistry. 4. Botany and Zoology. The questions will be on the classification of Plants and Animals. The quality of the handwriting and spelling will be taken into account. N.B. Each candidate (who has not already paid the amount) is required to pay a fee of £2 on the morning of the first day of the examination, prior to his admission thereto. The next examination will be held on or about the third Tuesday or Wednesday in December. The exact dates of the examination will be duly advertised when fixed in the Medical journals, and candidates are required to send in the prescribed forms of application not less than three weeks before the commencement of the examination.

Note.—*Candidates who have passed an Examination recognised as equivalent to the Preliminary Examination for the Diploma of Member, will be required, in order to qualify for the Fellowship, to pass in Algebra, Greek, and French, included in Part I., and in one, at their option, of the four subjects included in Part II. of the foregoing examination* (No. 3).

Section II.—*Professional Education.*—I. Except in the cases and instances hereinafter provided for to the contrary, every candidate for admission to the First or Anatomical and Physiological Examination for the Fellowship is required to produce the following certificates, viz.:—1. Of having passed the Preliminary Examination appointed by the Council, or such other examination as the Council may from time to time determine to be equivalent thereto. 2. Of having studied Practical Pharmacy during three months. 3. Of having attended Lectures on Anatomy during two Winter Sessions at a recognised School or Schools. 4. Of having performed Dissections at a recognised School or Schools during three Winter Sessions. 5. Of having attended Lectures on General Anatomy and Physiology during one Winter Session at a recognised School. 6. Of having attended a Practical Course of General Anatomy and Physiology during another Winter or a Summer Session, consisting of not less than thirty meetings of the Class, at a recognised School. *Note A.*—By the Practical Course referred to in Clause 6, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, &c. 7. Of having attended one Course of Lectures on Comparative Anatomy, one Course of Lectures on Chemistry, and a three months' Course of Practical Chemistry (with Manipulations), in its application to Medical Study, at a recognised School or Schools. *Note B.*—The Course of Lectures on Chemistry included in Clause 7 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his Preliminary Examination. *Note C.*—The Certificates of attendance on the several Courses of Lectures, must include evidence that the Student has attended the Practical Instructions and Examinations of his Teacher in each Course.

II. Except in the cases and instances hereinafter provided for to the contrary, every Candidate before his admission to the second Professional Examination is required to produce the following certificates, viz.:—1. Of being 25 years of age. 2. Of having been engaged for six years in the acquirement of Professional knowledge in Hospitals or Schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose; or, if the Candidate be already a Member of the College, he shall produce Certificates of having been engaged for two years in the acquirement of Professional knowledge in recognised Hospitals and Schools, in addition to the Certificates required for the Diploma of Member. 3. Of having attended Lectures on Surgery during one Winter Session at a recognised School. 4. Of having attended a Course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding clause, No. 3, at a recognised School. *Note D.*—The Course of Practical Surgery referred to in Clause 4 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of Anatomical facts to Surgery, on the living person, on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effect of diseases and accidents, on the living person, or on the dead body; the use of Surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise. 5. Of having attended at one or more recognised School or Schools one Course of Lectures on each of the following subjects, viz.:—Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction), and a Certificate of having personally conducted not less than ten labours, Pathological Anatomy during not less three months. *Note E.*—The Certificates of attendance on the several Courses of Lectures must include evidence that the Student has attended the Practical Instructions and Examinations of his teacher in each course. 6. Of having performed operations on the dead body under the superintendence of a recognised teacher. 7. Of instruction and proficiency in the practice of Vaccination. *Note F.*—In the case of Candidates who commenced their Professional education on or after October 1, 1868, the Certificate of Instruction in Vaccination will only be received from recognised Vaccine Stations, or from recognised Vaccine Departments in Medical Schools or Hospitals, or other public institutions, where the appointed Teacher of Vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place. 8. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during four Winter and four Summer Sessions, and the Medical Practice of a recognised Hospital or Hospitals during one Winter and one Summer Session. 9. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised Hospital or Hospitals, under the direction of a recognised teacher, during not less than three months. *Note G.*—It is intended that the Candidate should receive the instruction required by Clause 9 at an early period of his attendance at the Hospital. 10. Of having attended Clinical Lectures on Surgery during two Winter and two Summer Sessions, and Clinical Lectures on Medicine during one Winter and one Summer Session at one or more recognised Hospital or Hospitals. 11. Of having attended, during three Winter and two Summer Sessions, demonstrations in the Post-mortem Rooms of a recognised Hospital. 12. Of having served the office of House-Surgeon or Dresser, for not less than six months, in a recognised Hospital.

Notice.—The alterations in the Regulations which are applicable to Candidates who shall commence their Professional studies on or after October 1, 1870, *are contained in Clauses* 3, 5, *and* 6, *paragraph I., in Clauses* 3, 4, 5, 9, 10, *and* 11, *paragraph II., and in notes A, B, C, D, E, and G, paragraphs I. and II., of Section II.*

III. In the case of a Candidate who shall have taken by Examination the Degree of Bachelor or Master of Arts in any University in the United Kingdom recognised by the Council for this purpose, it shall be sufficient for him to produce a Certificate or Certificates that he has been engaged for five years (instead of six years) in the acquirement of Professional knowledge in Hospitals or Schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose.

IV. Any Member of the College shall, after the expiration of eight years from the date of his Diploma, be entitled to be admitted to the Professional examination for the Fellowship upon the production of a Certificate, signed by three Fellows, that he has been for eight years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified.

Section III.—*Professional Examinations.*—1. The Examinations are held twice in the year—in the months of May and November—and at such other times as the Council may appoint. 2. The Examinations occupy not less than two days, either successive or at such intervals as the Court of Examiners may appoint. 3. The first Examination on Anatomy and Physiology is partly written and partly *viva voce*, on the recently dissected subject and on prepared parts of the Human Body; the second Examination, on Pathology, Therapeutics, and the Principles and Practice of Surgery and Medicine,(a) is partly written, partly *viva voce*, and partly on the practical use of Surgical Apparatus, and includes the examination of Patients, and operations on the dead body. 4. Prior to his admission to the First or Anatomical and Physiological Examination, the

(a) Candidates can claim exemption from examination in Medicine under the following conditions, viz.:—1. The production by the Candidate of a Degree, Diploma, or Licence in Medicine entitling him to register under the Medical Act of 1858, or a Degree, Diploma, or Licence in Medicine of a Colonial or Foreign University approved by the Council of the College. 2. A declaration by the Candidate, prior to his admission to the Final Examination for the Fellowship, that it is his intention to obtain either of the Medical Qualifications mentioned in the foregoing paragraph, in which case the Diploma of the College will not be issued to him until he shall produce either the said Medical Qualification or proof of having passed the several examinations entitling him to receive the same. N.B. A Candidate who has passed an examination in Medicine for the Membership will not be required to pass any further examination in Medicine for the Fellowship.

Candidate is required to pay—*a*. A fee of Five Guineas, to be allowed on the fee for the Diploma of Fellow, but to be retained in case of rejection. 5. Prior to his admission to the Second Professional Examination, the Candidate is required to pay—*a*. A fee of Five Guineas(b) (if a Member) over and above all charges for stamps, to be retained in case of rejection. *b*. A fee of Twenty-five Guineas(b) (if not a Member) over and above all charges for stamps, of which Five Guineas will be retained in case of rejection. 6. A Candidate whose qualifications shall be found insufficient on his Anatomical and Physiological Examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of six months from the date of his reference. 7. A Candidate whose qualifications shall be found insufficient upon his Pathological and Surgical Examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of one year from the date of his reference, unless the Court of Examiners shall otherwise determine.

REGULATIONS RESPECTING THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THIS COLLEGE.

I. *Preliminary General Education and Examination.*—Candidates who commenced their Professional education on or after January 1, 1861, will be required to produce one or other of the following Certificates:—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised, viz.:—Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrews; Calcutta, Madras, and Bombay. Canada—McGill College, Montreal; and Queen's College, Kingston. 2. Of having passed an Examination for Matriculation, or such other Examination as shall, in either case, from time to time be sanctioned by the Council of this College, at a University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of this College. The following are the Examinations at present recognised under this Clause (No. 2), viz.:—Oxford.—Responsions or Moderations; Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics. Cambridge.—Previous Examination; Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics. Dublin.—Entrance Examination. London.—Matriculation Examination. Durham.—Examination of Students in Arts in their second and first years; Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics; Registration Examination for Medical Students. Queen's University in Ireland.—Two years' Arts Course for Diploma of Licentiate in Arts; Preliminary Examinations at end of B.A. Course; Middle-Class Examinations, the Certificates to include Latin and Mathematics. Matriculation Examinations. Edinburgh, Aberdeen, Glasgow, and St. Andrew's.—Preliminary or Extra-Professional Examinations for Graduation in Medicine. Calcutta, Madras, and Bombay.—Matriculation Examinations. Canada: McGill College, Montreal.—Matriculation Examination. Queen's College, Kingstou.—Matriculation Examination, Preliminary Examination of Students in Medicine. University College, Toronto; Victoria College, Toronto.—Matriculation Examinations. University of Lavel, Quebec.—Matriculation Examination. University of Melbourne.—Matriculation Examination, with a Certificate that the Student has passed an Examination in Latin. New York, Bellevue Hospital Medical College.—Matriculation Examination. 3. Of having passed the Preliminary Examination for the Fellowship of this College. 4. Of having passed the Preliminary Examinations of the Royal Colleges of Surgeons in Ireland and of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow. 5. Of having passed the Examination in Arts of the Society of Apothecaries of London, or of the Apothecaries' Hall of Ireland. 6. Of having passed the First Class Examination of the Royal College of Preceptors. 7. Testamur of the Codrington College, Barbadoes. 8. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a Certificate that the Student has been examined in Latin and Mathematics. 9. Candidates who shall not be able to produce one or other of the foregoing Certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of this College.

The following are the subjects of the Examination (No. 9) during the year 1870, viz.: Part I.—Compulsory subjects:—1. Reading aloud a passage from some English author. 2. Writiug from dictation. 3. English Grammar. 4. Writing a short English composition, such as a description of a place, an account of some useful or natural preduct, or the like. 5. Arithmetic. No Candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of Vulgar Fractions, and of Decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History—that is, the succession of the Sovereigns and the leading events of each reign. 8. Mathematics. Euclid, Books I. and II. Algebra to Simple Equations inclusive. 9. Translation of a passage from the second book of Cæsar's Commentaries, "De Bello Gallico." Part II.—Optional subjects:—Papers will also be set on the following six subjects; and each Candidate will be required to offer himself for examination on one subject at least, at his option; but no Candidate will be allowed to offer himself for examination on more than four subjects:—1. Translation of a passage from the first Book of the Anabasis of Xenophou. 2. Translation of a passage from X. B. Saintine's "Picciola." 3. Translation of a passage from Schiller's "Wilhelm Tell." Besides these Translations into English, the Candidate will be required to answer questions on the Grammar of each subject, whether compulsory or optional. 4. Mechanics. The questions will be chiefly of an elementary character. 5. Chemistry. The questions will be on the elementary facts of Chemisty. 6. Botany and Zoology. The questions will be on the classification of Plants and Animals. The quality of the handwiting and the spelling will be taken into account.

N.B.—Each Candidate (who has not already paid the amount) is required to pay a fee of £2 on the morning of the first day of the Examination prior to his admission thereto. The next Examination willl be held on or about the third Tuesday or Wednesday in December. The exact dates of the Examination will be duly advertised when fixed in the Medical journals, and Candidates are required to send in the prescribed forms of application not less than three weeks before the commencement of the Examination.

Note.—A Candidate, in order to qualify for the Fellowship, is required to pass in the subjects numbered 1 and 2, and in one, at his option, of the subjects numbered 3, 4, 5, and 6, Part II., in addition to the compulsory subjects contained in Part I.

II.—*Professional Education.*—1. Professional Studies prior to the date at which the Candidate shall have passed an examination in General Knowledge, in conformity with the Regulation in the preceding Section, are not recogniesd.

2. The following will be considered as the commencement of Professional Edueation:—1. Attendance on the Practice of a Hospital, or other Public Institution recognised by this College for that purpose. 2. Instruction as the Pupil of a legally qualified Surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on Lectures on Anatomy, Physiology, or Chemistry, by Lecturers recognised by this College. *The commencement of Professional study, otherwise than by attendance on Lectures in recognised Medical Schools, or by attendance on the Practice of recognised Hospitals, will not be admitted until a Certificate thereof shall be furnished to the Secretary for Registration at the College, by the Practitioner whose Pupil the Candidate shall have become, or by the Medical Superintendent of the Hospital or other Institution to the practice of which he shall have entered, and will, consequently, date only from the reception of such Certificate by the Secretary; the Certificate to be accompanied by proof of having passed the necessary Preliminary Examination in General Knowledge.*

3. Caudidates will be required to produce the following Certificates, viz.:—1. Of being twenty-one years of age. 2. Of having been engaged, subsequently to the date of passing the Preliminary Examination, during four years, or during a period extending over not less than four Winter and four Summer Sessions, in the acquirement of Professional knowledge. 3. Of having attended Lectures on Anatomy during two Winter Sessions. 4. Of having performed Dissections during not less than two Winter Sessions. 5. Of having attended Lectures on General Anatomy and Physiology during one Winter Session. 6. Of having attended a Practical Course of General Anatomy and Physiology during another Winter or a Summer Session, consisting of not less than thirty meetings of the Class. *Note A.*—By the Practical Course referred to in Clause 6, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc. 7. Of having attended Lectures on Surgery during one Winter Session. 8. Of having attended a Course of Practical Surgery during a period occupying not less than six months prior or subsequent to the Course required by the

(b) The sum of £2 paid on the Preliminary Examination will be allowed against these amounts.

preceding Clause 7. *Note B.*—The Course of Practical Surgery referred to in Clause 8 is intended to embrace instruction in which each Pupil shall be exercised in practical details, such as in the Application of Anatomical facts to Surgery, on the living person, or on the dead body. The methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents, on the living person, or on the dead body. The performance, where practicable, of the operations of Surgery on the dead body. The use of Surgical apparatus. The examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise. 9. Of having attended one Course of Lectures on each of the following subjects, viz:—Chemistry, Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction, and a Certificate of having personally conducted not less than ten labours). Pathological Anatomy during not less than three months. *Note C.*—The Course of Lectures on Chemistry included in Clause 9 will not be required in the case of a Candidate who shall have passed a satisfactory Examination in this subject in his Preliminary Examination. 10. Of having studied Practical Pharmacy during three months. 11. Of having attended a three months' Course of Practical Chemistry (with Manipulations), in its application to Medical Study. 12. Of Instruction and proficiency in the practice of Vaccination. Note D.—In the case of Candidates who commenced their Professional education on or after Oct. 1, 1868, the Certificate of Instruction in Vaccination will only be received from recognised Vaccine Stations, or from recognised Vaccine Departments in Medical Schools or Hospitals, or other public institutions, where the appointed Teacher of Vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place. *Note E.*—The Certificates of attendance on the several Courses of Lectures must include evidence that the Student has attended the Practical Instructions and Examinations of his Teacher in each course. 13. Of having attended, at a recognised Hospital or Hospitals, the Practice of Surgery during three Winter(c) and two Summer(d) Sessions. 14. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised Hospital or Hospitals, under the direction of a recognised Teacher, during not less than three months. *Note F.*—It is intended that the Candidate should receive the instruction required by Clause 14 at an early period of his attendance at the Hospital. 15. Of having, subsequently to the first Winter Session of attendance on Surgical Hospital Practice, attended, at a recognised Hospital or Hospitals, Clinical Lectures on Surgery during two Winter and two Summer Sessions. 16. Of having been a Dresser at a recognised Hospital, or of having, subsequently to the completion of one year's Professional education, taken charge of patients, under the superintendence of a Surgeon during not less than Six months, at a Hospital, General Dispensary, or Parochial or Union Infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery. 17. Of having attended during the whole period of attendance on Surgical Hospital Practice (see Clause 13) demonstrations in the Post-mortem Rooms of a recognised Hospital. 18. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during one Winter and one Summer Session.

Notice.—*Clauses* 6, 8, 11, 14, *and* 17, *and Notes* A B C E, *and* F, *together with the Courses of Lectures on Forensic Medicine and Pathological Anatomy mentioned in Clause* 9, *are applicable to Candidates who shall commence their Professional education on or after October* 1, 1870. N.B.—Blank Forms of the required Certificates may be obtained on application to the Secretary, and all necessary Certificates will be retained at the College.

III.—1. Certificates will not be received on more than one branch of Science from one and the same Lecturer; but Anatomy and Dissections will be considered as one branch of Science.

2. Certificates will not be recognised from any Hospital in the United Kingdom unless the Surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the Teachers in such School be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the Teachers in such School be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

3. No Metropolitan Hospital will be recognised by this College which contains less than 150, and no Provincial or Colonial Hospital which contains less than 100 Patients.

4. The recognition of Colonial Hospitals and Schools is governed by the same regulations with respect to number of of Patients and to Courses of Lectures, as apply to the recognition of Provincial Hospitals and Schools in England.

5. Certificates of Attendance upon the practice of a recognised Provincial or Colonial Hospital unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital Attendance required by the Regulations of this College; and in such cases Clinical Lectures will not be necessary, but a Certificate of having acted as Dresser for a period of at least six months will be required.

6. Certificates will not be received from Candidates who have Studied in London, unless they shall have registered at the College their cards of admission to attendance on Lectures and Hospital Practice within fifteen days from the commencement of the Session; nor from Candidates who have studied in the Provincial Schools in England, unless their names shall be duly returned from their respective Schools.

N.B. At their first registration in October Candidates will be required to produce a Certificate of having passed one or other of the Preliminary Examinations in General Knowledge recognised by this College.

7. Those Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to Examination upon the production of the several Certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from Candidates for their Diploma, together with a Certificate of instruction and proficiency in the practice of Vaccination and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge; and in the case of candidates who shall have pursued the whole of their studies at recognised foreign or Colonial Universities, upon the production of the several Certificates required for their Degree by the authories of such Universities, together with a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge.

8. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will be admitted to Examination on producing their Diploma, Licence, or Degree, together with proof of being twenty-one years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period of extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge.

9. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will be admitted to Examination on adducing, together with their Diploma or Degree, proof of being twenty-one years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge.

IV.—*Professional Examination.*—This Examination is divided into two parts. 1. The First or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject and on prepared parts of the Human Body. 2. The Second or Pass Examination, on Surgical Anatomy and the Principles and Practice of Surgery and Medicine(e), is partly written, partly oral, and partly on

(c) The Winter Session comprises a period of six months, and in England commences on October 1 and terminates on March 31.

(d) The Summer Session comprises a period of three months, and in England commences on May 1 and terminates on July 31.

(e) Candidates can claim exemption from Examination in Medicine under the following conditions, viz.:—1. The production by the Candidate of a Degree, Diploma, or Licence in Medicine entitling him to register under the Medical Act of 1858, or a Degree, Diploma, or Licence in Medicine of

the practical use of Surgical Apparatus. Notice.—*In the Pass Examination, on and after March* 31, 1871, *the knowledge of Candidates will be tested by the practical examination of Patients.* 3. The Primary Examinations are held in the months of January, April, May, July, and November, and the Pass Examinations generally in the ensuing week respectively. 4. Candidates will not be admitted to the Primary Examination until after the termination of the Second Winter Session of their attendance at a recognised School or Schools, nor to the Pass, or Surgical Examination, until after the termination of the fourth year of their Professional Education. 5. The fee of £5 5s., paid prior to the Primary Examination, and allowed on the whole fee of £22(f) payable for the diploma, is retained; and after any two consecutive failures at the Primary Examination, the Candidate is required to pay an *additional* fee of £5. 5s. prior to being again admitted to that examination, which *additional* fee is also retained 6. £5 5s., part of the sum of £16 15s., the balance of the whole fee due for the Diploma, and paid prior to the Pass Examination, is retained; and after any two consecutive failures at the Pass Examination, the Candidate is required to pay an *additional* fee of £5 5s. prior to being again admitted to the said Pass Examination, which *additional* fee is also retained. 7. A Candidate having entered his name for either the Primary or Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for Examination within the period of three months from the date at which he shall have so failed to attend. 8. A Candidate referred on the Primary Examination is required, prior to his admission to re-examination, to produce a Certificate of the performance of dissections during not less than three months, subsequently to the date of his reference. 9. A Candidate referred on the Pass Examination is required, prior to his admission to re-examination, to produce a Certificate of at least six months' further attendance on the Surgical Practice of a recognised Hospital, together with Lectures on Clinical Surgery, subsequently to the date of his reference.

QUALIFICATION IN MIDWIFERY.

REGULATIONS RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THIS CERTIFICATE.

1. Persons who were Fellows or Members of the College prior to the 1st day of January, 1853, will be admitted to Examination for the Certificate of Qualification in Midwifery upon producing their Diploma.

2. Persons having become Members of the College subsequently to the 1st of January, 1853, will be admitted to Examination on producing their Diploma, together with a Certificate or Certificates of having attended twenty labours.

3. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will also be admitted to Examination on producing, together with their Diploma, Licence, or Degree, proof of being 21 years of age—of having been occupied at least four entire years in the acquirement of Professional knowledge—of having attended one Course of Lectures on Midwifery—and of having attended not less than twenty labours.

4. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will also be admitted to Examination on producing, together with their Diploma or Degree, proof of being 21 years of age—of having been occupied at least four entire years in the acquirement of Professional knowledge—of having completed, at recognised Schools, the Anatomical and Surgical education required of Candidates for the Diploma of Member of the College—of having attended one Course of Lectures on Midwifery—and of having attended not less than twenty labours.

5. Persons having commenced their Professional education, either by attendance on Hospital Practice, or on Lectures on Anatomy, prior to the 1st of January, 1853, will be admitted to Examination on producing the several Certificates of Professional education required for admission to Examination for the Diploma of Member of this College at the period when such persons shall respectively have, in such manner, commenced their Professional education.

6. Persons having commenced their Professional education, either by attendance on Hospital Practice or on lectures on Anatomy, after the 31st day of December, 1852, will be admitted to Examination on producing Certificates of being 21 years of age, of having been engaged during at least four entire years in the acquirement of Professional knowledge, of having completed at recognised Schools the Professional education required of Candidates for the Diploma of Member of this College, of having attended one Course of Lectures on Midwifery and the Diseases of Women and Children, and of having personally conducted thirty labours.

Note.—All Candidates who shall commence their Professional education on or after October 1, 1866, will, in addition to the Certificates enumerated in the foregoing clauses, be required to produce a Certificate of having, prior to such commencement, passed a Preliminary Examination in General Knowledge recognised by this College.

N.B.—The fee for the Certificate is as follows; viz.:—1. Persons who were Fellows or Members of this College prior to January 1, 1853, Two Guineas. 2. Persons admitted Fellows or Members of this College subsequently to January 1, 1853, Three Guineas. 3, 4. Persons producing any other Diploma or Certificate of Degree which may be considered by the Council to afford satisfactory proof of sufficient Surgical and Medical education, Three Guineas. 5, 6. All other persons, Ten Guineas.

The Examinations are held in the months of February, May, August, and December.

REGULATIONS RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE EXAMINATION IN DENTAL SURGERY.

Candidates are required to produce the following Certificates:—

1. Of being 21 years of age.

2. Of having been engaged during four years in the acquirement of Professional knowledge.

3. Of having attended, at a School or Schools recognised by this College, not less than one of each of the following Courses of Lectures, delivered by Lecturers recognised by this College, viz:—Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica.

4. Of having attended a second Winter Course of Lectures on Anatomy, or a Course of not less than twenty Lectures on the Anatomy of the Head and Neck, delivered by Lecturers recognised by this College.

5. Of having performed Dissections at a recognised School during not less than nine months.

6. Of having completed a course of Chemical Manipulation, under the superintendence of a Teacher or Lecturer recognised by this College.

7. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom, the Practice of Surgery and Clinical Lectures on Surgery during two Winter Sessions.

8. Of having attended, at a recognised School, two Courses of Lectures upon each of the following subjects, viz.:—Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one Course of Lectures on Metallurgy, by Lecturers recognised by this College.

9. Of having been engaged during a period of not less than three years in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent Practitioner.

10. Of having attended at a recognised Dental Hospital, or in the Dental department of a recognised General Hospital, the Practice of Dental Surgery during two Winter and two Summer Sessions.

N.B. The Students of the London Schools are required to register the above Certificates at this College, and special returns will be required from the Provincial Schools.

The fee for the Certificate of fitness to practise as a Dentist is Ten Guineas, over and above any stamp duty.

Members of the College will be examined only by the section of the Board consisting of persons skilled in Dental Surgery.

A Candidate whose qualification shall be found insufficient, will be referred back to his studies, and will not be admitted to re-examination within the period of six months unless the Board shall otherwise determine.

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a Colonial or Foreign University approved by the Council of the College. 2. A declaration by the Candidate, prior to his admission to the final Examination for Membership or Fellowship, that it is his intention to obtain either of the Medical qualifications mentioned in the foregoing paragraph, in which case the Diploma of the College will not be issued to him until he shall produce either the said Medical qualification or proof of having passed the several Examinations entitling him to receive the same.

(f) This sum of £22 is exclusive of the fee of £2 paid for the Preliminary Examination.

SOCIETY OF APOTHECARIES (ENGLAND).

Every Candidate for a Certificate of Qualification to practise as an Apothecary will be required to produce testimonials—1. Of having passed a Preliminary Examination in Arts, as a test of general education. (This examination must be passed before the commencement of Professional studies, which is defined by the Medical Council to be "the time of commencing studies at a Medical School.") 2. Of having served an apprenticeship or pupilage of not less than five years to a Practitioner qualified by the Act of 1815. (This period may include the time spent in attending Lectures and Hospital Practice.) 3. Of having attained the full age of twenty-one years, of which satisfactory evidence will be required. 4. Of good moral conduct. 5. Of having pursued a course of Medical study in conformity with the regulations of the Court.

Course of Study.—Every candidate whose attendance on Lectures shall have commenced on or after October 1, 1863, must attend the following Lectures and Medical Practice during not less than three Winter and and two Summer Sessions (each Winter Session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each Summer Session to extend from May 1 to July 31):—

First Year.—Winter Session: Chemistry; Anatomy and Physiology; Dissections. Summer Session: Botany; Materia Medica and Therapeutics; Practical Chemistry.

Second Year.—Winter Session: Anatomy and Physiology, including Dissections and Demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children, and Vaccination; Forensic Medicine and Toxicology; Clinical Medical Practice.

Third Year.—Winter Session: Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Clinical Medical Practice.

N.B.—Resolutions passed by the Court of Examiners of the Society of Apothecaries:—1st. That after June, 1870, all Medical Students presenting themselves for the Second Examination shall produce evidence of having served the office of Clinical Clerk at a recognised Hospital during the period of six weeks at least. 2nd. That after June, 1870, all Students shall be required to produce evidence that they have been examined at the Class Examinations instituted by the various

Lecturers and Professors of their respective Medical Schools and Colleges.

No certificates of Lectures or of Anatomical Instruction delivered in private to particular Students, apart from the ordinary classes of recognised Public Medical Schools, can be received by the Court of Examiners.

All students are required *personally* to register the several tickets of admission to Lectures and Medical Practice within the first fifteen days of the months of October and May.

Examination in Arts.—Examinations will be held at the Hall of the Society on Friday and Saturday, January 27 and 28, April 28 and 29, September 29 and 30. Candidates will be examined in the following branches; and no Candidate will be approved unless he show a competent knowledge of each branch of the Examination: — 1. The English language; 2. The Latin language; 3. Mathematics; 4. One of the following subjects, at the option of the Candidate:—(*a*) Greek; (*b*) French; (*c*) German; (*d*) Natural Philosophy. Candidates applying to be admitted to any Examination must pay the fee (one guinea) at least one week before the Examination, and must sign their names in the Candidates' Book between 11 a.m and 3 p.m. o'clock, not later than the previous Thursday. If a Candidate fail to pass the Examination, the fee will not be returned to him, but he will be admissible to any subsequent Examination in Arts without the payment of an additional fee, upon giving the usual notice, and signing the Candidates' Book.

Syllabus of Subjects for Examination, 1871.—I. The English language: The leading features of its history; its structure and grammar; English composition. [The books recommended for study in this subject are Adams's "Elements of the English Language" and Trench "On the Study of Words."] II. The Latin language: January examination—Horace, Odes, Books i. and ii. April examination—Virgil, Georgics, Books i. and ii. September examination—Cicero, Orat. in Catilinam, Books i. and ii. Retranslation of easy sentences; grammatical questions will be introduced into the Latin paper, and each Candidate will be expected to give satisfactory answers to these. III. Mathematics: The ordinary rules of arithmetic; vulgar and decimal fractions; addition, subtraction, multiplication, and division of algebraical quantities; simple equations; the first two Books of Euclid. IV. (*a*) Greek: Homer, Iliad, Books i. and ii.; grammatical questions. (*b*) French: Telemachus, Books i. and ii.; translation from English into French; grammatical questions. (*c*) German: Schiller's Song of the Bell; translation of short sentences from English into German; grammatical questions. (*d*) Natural Philosophy: Mechanics; hydrostatics and pneumatics. [The book recommended for study in this subject is Snowball's "Cambridge Course of Elementary Natural Philosophy."]

Certificates in Arts granted by any of the bodies whose Certificate is recognised by the Medical Council will be accepted from Candidates who present themselves at the Professional Examination at the Hall as equivalent to their having passed this Examination.

Professional Examinations.—The Court of Examiners meet in the Hall every Thursday, where candidates are required to attend at 3.45 p.m. Every person intending to offer himself for examination must give notice in writing to the Clerk of the Society on or before the Monday previous to the day of examination, and must at the same time deposit all the required testimonials and the fee at the office of the beadle, where attendance is given every day, except Sunday, from 10 to 4 o'clock; Saturday, 10 to 2.

The examination of candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

The First Examination, which may be passed after the second Winter Session, embraces the following subjects:—The British Pharmacopœia, Latin of Physicians' Prescriptions; Anatomy and Physiology; General and Practical Chemistry; Botany, and Materia Medica.

Second or Pass Examination, after the third Winter Session (the five years' pupilage being completed):—Principles and Practice of Medicine; Pathology and Therapeutics; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

All Graduates in Medicine of British Universities will be admitted to a practical examination in Medicine and Midwifery only.

Licentiates of the Royal College of Physicians, London: of the Royal College of Physicians, Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall of Dublin, will be admitted to a *viva voce* examination in Medicine, Midwifery, Forensic Medicine, and Toxicology.

Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland, possessing a Surgical qualification only, will be admitted to a first and second examination on one evening. The first or *viva voce* examination will include the subjects of Physicians' Prescriptions, Visceral Anatomy, Physiology, Chemistry, Materia Medica, Botany, and Pharmacy; the second, which is partly written and partly *viva voce*, will include the subjects of Practice of Medicine, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicological Chemistry.

Any candidate who has passed his first examination for the licence of the Royal College of Physicians, London; the licence of the King and Queen's College of Physicians, Ireland; the joint licence of the Royal Colleges of Physicians and Surgeons, Edinburgh, or for the single licence of the College of Physicians, Edinburgh; the licence of the Faculty of Physicians and Surgeons, Glasgow; the first Professional Examination for the degree of M.B., or Master in Surgery, in the Universities of Oxford, Cambridge, or London; or the second part of the Professional examination for the degree of M.B., or Master in Surgery, in the Universities of Edinburgh, Aberdeen, St. Andrew's, and Glasgow; or the first examination for the Medical and Surgical degrees in the Irish Universities; or the first examination for the licence of the Apothecaries' Company, Dublin, will be admitted to a single examination in Materia Medica, Therapeutics, Medicine, Pathology, Midwifery, and Toxicology, part of which examination will be conducted in writing.

The examination of candidates for Certificates of qualification to act as Assistant, in compounding and dispensing medicines, is as follows:—In translating Physicians' Prescriptions, in the British Pharmacopœia, in Pharmacy, Pharmaceutical Chemistry, and Materia Medica.

By the 22nd section of the Act of Parliament, no rejected candidate for the licence can be re-examined until the expiration of six months from his former examination. A candidate rejected on his first Professional examination can be admitted to re-examination after the expiration of three months.

Fees.—For a Certificate of qualification to practise, six guineas, the half to be paid at the first examination; for an assistant's Certificate, two guineas.

Students' Prizes.—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and also two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most in the examination; and of a silver medal and a book to the candidate who does so in the next degree.

The examination in Botany will be held at the Hall of the Society on the second Wednesday in June, at 10 a.m., and will be conducted by printed papers and *viva voce* questions.

The examinations in Materia Medica and Pharmaceutical Chemistry will be held at the Hall of the Society on the third Wednesday, and on the following Friday, in October, from ten in the forenoon to one in the afternoon of each day; by printed papers on the Wednesday, and by *viva voce* questions on the Friday.

The Society's Botanic Garden at Chelsea is open daily (except Sunday) from ten till five o'clock p.m., and on Saturdays from ten till two oclock. Tickets of admission may be had on application at the Beadle's Office, Apothecaries' Hall, Blackfriars, E.C.

ARMY MEDICAL DEPARTMENT,

WHITEHALL-YARD.

QUALIFICATIONS AND EXAMINATION OF CANDIDATES FOR COMMISSIONS IN THE ARMY MEDICAL SERVICE.

1. Every Candidate desirous of presenting himself for admission to the Army Medical Service must be unmarried, and not under 21 nor over 28 years of age. He must produce a Certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must also produce a certificate of moral character from the parochial minister, if possible.

2. The Candidate must make a declaration that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical officer in any climate.(a) He must

(a) His physical fitness will be determined by a board of Medical officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any Surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed. Every Candidate must also be free from organic disease of other organs, and from constitutional weakness or other disability likely to unfit him for military service in any climate.

also attest his readiness to engage for general service, and to proceed on foreign service when required to do so.

3. The Candidate must be registered under the Medical Act of 1858 as licensed to practise Medicine and Surgery in Great Britain or Ireland.

4. Certificates of registration, character, and age must accompany this Schedule when filled up and returned.

5. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology, Surgery, Medicine (including Therapeutics), the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of Surgical apparatus, and the examination of Medical and Surgical patients at the bedside.) The eligibility of each Candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to Materia Medica; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science.

6. After passing this examination, every Candidate will be required to attend one entire course of practical instruction at the Army Medical School on—(1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Military Surgery; (4) Pathology of Diseases and Injuries incident to Military Service.

7. At its conclusion, the Candidate will be required to pass an examination on the subjects taught in the School. If he give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a Commission as Assistant-Surgeon.

8. During the period of his residence at the Army Medical School each Candidate will receive an allowance of 5s. per diem with quarters, or 7s. per diem without quarters, to cover all costs of maintenance, and he will be required to provide himself with uniform (viz., the Regulation undress uniform of an Assistant-Surgeon, but without the sword).

9. All Candidates will be required to conform to such rules of discipline as the Senate may from time to time enact.

EXTRACTS FROM THE ROYAL WARRANT (April 1, 1867) FOR THE PAY AND NON-EFFECTIVE PAY OF MEDICAL OFFICERS.

The daily rates of pay of the Officers of the Medical Branch of the Hospital Department of our Army shall be as follows:—

Medical Staff,—Daily Pay: Director-General, special; Inspector-General, £2, after twenty-five years' service £2 5s., after thirty years' service £2 7s., after thirty-five years' service £2 10s.; Deputy Inspector-General, £1 10s., after twenty-five years' service £1 12s., after thirty years' service £1 15s., after thirty-five years' service £1 17s.; Surgeon-Major, £1 4s., after twenty-five years' service £1 7s.; Surgeon 17s. 6d., after fifteen years' service 20s.; Assistant-Surgeon, on appointment, 10s., after five years' service 12s. 6d., after ten years' service 15s., after fifteen years' service 17s. 6d. Charge pay: The Officer in Medical charge of an army in the field, of 10,000 men and upwards, £1 daily; of 5000 men and upwards, 15s. daily; of less than 5000, 10s. daily; or, in Medical charge of a colony where the number of commissioned officers and enlisted men is 1500 and upwards, 5s. daily.

Apothecaries' Daily Pay.—Apothecaries 9s., after five years' service 10s. 6d., ten years' 12s., fifteen years' 13s. 6d., twenty years' 15s., twenty-five years' 16s. 6d., thirty years' 18s.

Medical officers have the right to retire on half-pay after twenty years' service; Medical officers of the rank of Surgeon-Major, Surgeon, or Assistant Surgeon, shall be placed on the retired list at the age of 55, and all Inspectors-General and Deputy Inspectors-General at the age of 65 years.

An Apothecary shall have the right to retire on half-pay after thirty years' good service.

Non-effective Pay: A Medical officer placed on half-pay by reduction of establishment, or on the report of a Medical Board, in consequence of wounds or ill-health caused in and by the discharge of his duties, or on account of age, shall be entitled to half-pay at the following daily rates:—Inspector-General, after 30 years' service, £1 17s. 6d.; 25 years', £1 13s. 6d.; 20 years', £1 10s. Deputy Inspector-General, after 30 years', £1 5s. 6d.; 25 years', £1 2s. 6d.; 20 years', £1 1s. Surgeon-Major, after 25 years', £1; 20 years', 16s. 6d. Surgeon, after 15 years', 13s. 6d.; 10 years', 11s. Assistant-Surgeon, after 10 years', 10s.; 5 years', 8s.; under 5 years', 6s.

The rate of half-pay awarded to officers retiring for their own convenience, after 20 years' service on full-pay, shall not exceed one-half of their full-pay at the time of retirement.

ARMY MEDICAL SCHOOL.

President of the Senate.—Sir T. Galbraith Logan, K.C.B., M.D., Director-General of the Army Medical Department.

Members of the Senate.—Sir Ranald Martin, C.B., Physician to the Indian Council; Inspector-General G. S. Beatson, M.D., C.B., Principal Medical Officer Royal Victoria Hospital; Deputy-Inspector-General T. Longmore, C.B., Professor of Military Surgery; Deputy-Inspector-General W. C. Maclean, Professor of Military Medicine; William Aitken, M.D., Professor of Pathology; E. A. Parkes, M.D., F.R.S., Professor of Military Hygiene.

Assistant-Professors.—Staff Surgeons Major W. A. Makinnon, C.B., and W. J. Fyffe, M.D.; Staff Surgeon F. S. B. F. De Chaumont, M.D.; and Staff Assistant-Surgeon V. Wearne.

Candidates for Commissions in the Army, and in the Queen's Indian Service, proceed to Netley after passing the Examination in London. At Netley they attend the Medical and Surgical Practice of the Royal Victoria Hospital, and learn the system and arrangements of Military Hospitals. During four months they attend the Lectures given by the Professors and Assistant-Professors, and go through a course of Practical Instruction in the Hygienic Laboratory and Microscopical Room.

NAVAL MEDICAL DEPARTMENT, ADMIRALTY.

REGULATIONS RELATIVE TO THE EXAMINATION OF CANDIDATES FOR THE APPOINTMENT OF ASSISTANT-SURGEON IN THE ROYAL NAVY.

The Right Honourable the Lords Commissioners of the Admiralty are pleased to direct that the following Regulations, relative to the Examination of Candidates for the Appointment of Assistant-Surgeon in the Royal Navy, shall in future be adopted:—

That a Candidate for entry into the Royal Navy shall make a written application to that effect, addressed to the Secretary of the Admiralty; on the receipt of which application he will be furnished with a Schedule containing the Regulations, and a printed Form, to be filled up by him, in accordance with the directions given therein.

As vacancies occur, the number of Candidates required will be ordered to attend for competitive Examination at the Admiralty Office; but it is to be observed that no person can be admitted as an Assistant-Surgeon into the Royal Navy unless he can produce satisfactory evidence that his name has been placed on the Medical Register as legally qualified to practice both Medicine and Surgery, according to the Regulations established by the Medical Act. And further, he will be required to make a declaration that he is free from any mental or bodily disease, defect, or infirmity, which could interfere with the efficient discharge of his duties as a Medical Officer in the Navy.(a)

Each Candidate will be required to produce—(1) A Certificate of good moral character, signed by a magistrate, a clergyman, or by a legally qualified Physician or Surgeon. (2) A Certificate that he is not less than twenty, nor more than twenty-eight, years of age. (3) Certificates of attendance at Lectures, etc., and proof that subsequently to the age of eighteen he has actually attended a recognised Hospital for eighteen months, in which the average number of patients is not less than one hundred. (4) Certificates that he has been engaged in actual dissection for twelve months, and that he has performed the principal capital and minor operations on the dead body under a qualified teacher.

On producing the above Certificates, he will be examined on the following subjects, viz:—Anatomy; Surgery; Physiology, or Institutes of Medicine; Practice of Medicine; Chemistry; Materia Medica; Midwifery; Botany.

Although a competent knowledge of the above-mentioned subjects is all that is absolutely required in Candidates for the Appointment of Assistant-Surgeon, a favourable consideration will be given to those who are acquainted with the

(a) His physical fitness will be determined by a Board of Medical Officers, who will be required to certify that his vision is sufficiently good to enable him to perform any Surgical operation without the aid of glasses, and that he is free from organic disease, constitutional weakness, or other disability likely to unfit him for the Naval Service in any climate.

collateral sciences more immediately connected with the Profession, such as Natural History, Natural Philosophy, and the use of the Microscope in diagnosis.

After completing three years' full-pay service, Assistant-Surgeons will be allowed to be examined for the rank of Surgeon before a Board of Naval Medical Officers assembled at the Department of the Medical Director-General of the Navy, but no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years, two of which must have been in a ship actually employed at sea.

Their Lordships have been pleased further to direct that a limited number of those Candidates, who pass the best examination on entering the Service, shall be promoted annually to the rank of Surgeon at an earlier period than would occur under ordinary circumstances; and that these promotions shall be awarded as follows:—The Candidate who passes the best Examination of his year after five years' service; the Candidate who passes the best Examination of his year, second best, after six years' service; the Candidate who passes the best Examination of his year, third best, after seven years' service. Provided, however, that their second Examinations are passed in an equally creditable manner, and that their conduct during the whole time they have been in the Service has in all respects been satisfactory.

The full and half pay of Naval Medical Officers is in accordance with the following scale:—Full pay: Inspector-General of Hospitals and Fleets—On promotion or under twenty-five years' service, £2 5s.; ditto or above twenty-five years' service, £2 6s.; and for each additional year of service 1s. a-day more until the maximum is reached—namely, £2 10s. Deputy Inspector-General of Hospitals and Fleets—On promotion or under twenty-two years' service, £1 11s.; ditto or above twenty-two years' service, £1 12s.; and for each additional year of service 1s. a-day more until the maximum is reached—namely, £1 18s. Staff Surgeon—On promotion or under twenty years' service, £1 3s.; ditto or above twenty years' service, £1 4s.; and for each additional year of service 1s. a-day more until the maximum is reached—namely, £1 10s. Surgeon—On promotion or under fourteen years' service, 18s.; ditto or under seventeen years' service, £1; and for each additional year of service 1s. a-day more until the maximum is reached—namely, £1 2s Assistant-Surgeon—Under five years' service, 11s.; under eight years' service, 12s. 6d.; under eleven years' service, 14s.; under fourteen years' service, provided he passed his examination for Surgeon while under ten years' service, 15s. 6d.; above fourteen years' service, ditto, 17s. Half pay: Assistant-Surgeon—Under five years' service, 6s.; under eight years' service, 8s.; under eleven years' service, 10s.; above eleven years' service, provided he passed his examination for Surgeon while under ten years' service, 11s. Surgeon—On promotion or under fourteen years' service, 11s.; ditto or under seventeen years' service, 13s.; ditto or above seventeen years' service, 14s. Staff Surgeon—On promotion or under twenty years' service, 16s.; ditto or above twenty years' service, 16s. 6d.; and for each additional year of service 6d. a-day more until the maximum is reached—namely, 18s. 6d. Deputy Inspector-General of Hospitals and Fleets—On promotion or under twenty-two years' service, £1 1s.; ditto or above twenty-two years' service, £1 2s.; and for each additional year of service 1s. a-day more until the maximum is reached—namely, £1 7s. Inspector-General of Hospitals and Fleets—On promotion or under twenty-five years' service, £1 11s.; ditto or above twenty-five years' service, £1 12s.; and for each additional year of service 1s. a-day more until the maximum is reached—namely, £1 18s.

Retirement is provided for according to age and service, under special regulations.

RULES AND REGULATIONS
OF THE
EXAMINING MEDICAL BODIES IN SCOTLAND.

UNIVERSITY OF EDINBURGH.

The Session 1870-71 will be publicly opened on Tuesday November 1, 1870, when an address will be delivered by the Principal.

GRADUATION IN MEDICINE—STATUTES OF THE UNIVERSITY OF EDINBURGH RELATIVE TO GRADUATION IN MEDICINE AND SURGERY.

Three Medical Degrees are conferred by the University of Edinburgh—viz., Bachelor of Medicine (M.B.). Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

I. The preliminary branches of extra-Professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination, prior to the commencement of their Medical study.

II. No candidate is admitted to a Professional Examination who has not passed a satisfactory Examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his Medical Curriculum.

III. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all preliminary Examination; and an Examination in Arts by any corporate body, whose Examination has been recognised as qualifying for entrance on Medical study by resolution of the General Medical Council of the United Kingdom, provided the said Examination by the said corporate body shall be also approved by the University Court, shall exempt from preliminary Examination in Arts, on all subjects comprised in the said Examination of the said corporate body.

IV. No one is admitted to the Degree of Bachelor of Medicine or Master in Surgery who has not been engaged in Medical and Surgical study for four years—the Medical Session of each year, or *Annus Medicus*, being constituted by at least two Courses of not less than one hundred lectures each, or by one such Course, and two Courses of not less than fifty lectures each; with the exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

V. Every Candidate for the Degrees of M.B. and C.M. must give sufficient evidence by Certificates—

1. That he has studied each of the following departments of Medical Science—viz., Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery, and the Diseases peculiar to Women and Children (two Courses of Midwifery of three months each being reckoned equivalent to a six month's Course, provided different departments of Obstetric Medicine be taught in each of the Courses), General Pathology (or, in Schools where there is no such Course, a three months' Course of Lectures on Morbid Anatomy, together with a supplemental Course of Practice of Medicine, or Clinical Medicine), during Courses including not less than one hundred Lectures; Practical Anatomy, a Course of the same duration as those of not less than one hundred Lectures above prescribed; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or a Certificate of attendance on six cases from a registered Medical Practitioner; Clinical Medicine, Clinical Surgery, Courses of the same duration as those of not less than one hundred Lectures above prescribed, or two Courses of three months, Lectures being given at least twice a week; Medical Jurisprudence, Botany, Natural History, including Zoology, during Courses including not less than fifty Lectures(a).

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accomodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has been engaged for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of an Hospital, Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of an Hospital, or the practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.(b)

VI. The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following Regulations:—

1. One of the four years of Medical and Surgical study required by Section IV. must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital which accommodates at least eighty patients, and during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures as above prescribed.

4. One year's attendance on the Lectures of Teachers

(a) Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the carefulness with which the dissections have been made.

(b) *See* Note as to Vaccination appended to Section XVII.

of Medicine in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh, or elsewhere, as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures, as above prescribed.

5. Candidates may, to the extent of four of the Departments of Medical Study required by Section V., Sub-section 1, attend, in such year or years of their Medical and Surgical studies as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-section 4.

6. All Candidates, not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

7. The Fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.(c)

8. No Teacher is recognised who is at the same time a teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

VII. Every Candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration in his own handwriting, that he has completed his twenty-first year,(d) and that he will not be, on the day of Graduation, under articles of apprenticeship to any Surgeon or other master.

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper Certificates.

VIII. Each Candidate is examined, both in writing and *viva voce*—*First*, on Chemistry, Botany, and Natural History; *Secondly*, on Anatomy, Institutes of Medicine, Materia Medica,(e) and Pathology; *Thirdly*, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; *Fourthly*, Clinically on Medicine and on Surgery in an Hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, and Natural History are conducted, as far as possible, by demonstrations of objects placed before the Candidates.

IX. Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of their second year, may be admitted to examination at that time.(f)

X. Students who have passed their examination on the first division of these subjects may be admitted to examination on the second division at the end of their third year.

XI. The examination on the third and fourth divisions cannot take place until the Candidate has completed his fourth *Annus Medicus*.

XII. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

XIII. If any Candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied, during another year, two of the prescribed subjects, either in the University, or in some other School of Medicine.

XIV. The Degree of Doctor of Medicine may be conferred on any Candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of 24 years, and has been engaged, subsequently to his having received the Degree of Bachelor of Medicine, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice.(g) Provided always that the Degree of Doctor of Medicine shall not be conferred on any person unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects, namely, French, German, Higher Mathematics and Natural Philosophy. And provided also that the Candidate for the Degree of Doctor of Medicine shall on or before the 31st day of March, in the year in which he proposes to graduate, submit to the Medical Faculty a Thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the Professional Examinations for the Degree of Bachelor of Medicine, which he may have made a subject of study after having received that Degree.(h)

XV. The Medical Examiners for all Candidates for Graduation in Medicine are the Professors in the Faculty of Medicine, and, in addition, three persons appointed annually by the University Court.

XVI. The provisions of these Statutes came into operation on the 4th of February, 1861.

XVII. Persons who began their Medical studies before the 4th of February, 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

Note.—In conformity with the desire expressed by the Privy Council, it has been resolved that any Candidate for a Degree in Medicine must produce, at his final Examination, a Certificate from a Dispensary or other Public Institution where Vaccination is practised, attesting that he has been practically instructed in the operation, and is acquainted with the appearances which follow its performance.

Notice to Candidates for Graduation in Medicine.—Candidates who commenced their Medical studies by attendance on qualifying classes before February 4, 1861, are entitled to appear for examination for the Degree of Doctor of Medicine, after four years' study, on completing their 21st year, and without having taken the Degree of Bachelor of Medicine. They are also exempted from the preliminary examinations mentioned in Sections I. and II., and require only to undergo an examination in Latin. They are also exempted from attendance on Practical Chemistry and Practical Midwifery, and require only three months of Clinical Surgery and eighteen months of Hospital attendance.

An *Annus Medicus* is constituted by at least two Winter Courses of one hundred lectures each, or by one such Course, and two Summer Courses, of fifty lectures each, all being duly certified.

Four *Anni Medici* are required for Graduates in Medicine. Two at least of these years must be passed at a University which grants Degrees in Medicine, one of the two being at Edinburgh.

One or two of the *Anni Medici* may be taken at qualified extra-Academical Schools, in the manner stated in the succeeding paragraph.

In University College, in King's College, in the Hospital Schools of London, in the extra-Academical Schools of Edinburgh, in the School of the College of Surgeons of Dublin, and in certain Medical Schools where at least two Lecturers have been qualified by the University Court, a candidate may take *two Anni Medici*, one of which must be constituted by Hospital attendance and Practical Anatomy, and the other by at least two Courses of one hundred Lectures, or one such Course, and two Courses of fifty Lectures. The classes at these Schools only qualify to the extent of four, and one of the four must be Practical Anatomy. But the three-months' Courses of Materia Medica, Pathology, and Midwifery, do not qualify. For each of these subjects *one* Course of one hundred Lectures is required. All the classes mentioned in Section V. must be taken at a University, except the *four* selected by the Candidate. The classes so selected must be qualifying Courses, as regard the subjects and extent.

In Provincial Schools, where there are no Lecturers qualified by the University Court, a candidate can make *one Annus Medicus only*, and this is constituted by attendance on a qualified Hospital along with a course of Practical Anatomy.

The Edinburgh extra-Academical classes only qualify if the fee paid at the commencement of the Session is the same as that paid to the Professors in the University; and no teacher is qualified who lectures on more than one of the required subjects. Any Candidate settled for a period of years in foreign parts, who, since receiving the Degree of M.B., has complied with all the regulations for the Degree of M.D., but who cannot attend personally, may, on satisfying the Senatus to that effect by production of sufficient official testimonials, have the Degree conferred on him in absence.

Preliminary Examinations in Arts, October 18 and 19, 1870; March 21 and 22, 1871. First Professional Examination, October 22, 1870; April 1, 1871. Second Professional Examination, April 8 and 10, 1871. Final Professional Examination, June, 1871. Graduation, August 1. Candidates who appear for examination must produce Certificates of having attended *complete* Courses of the subjects on which they are to be examined. A Degree in Arts of any University of the United Kingdom or of the Colonies, or of such other Universities as may be specially recognised by the University Court, exempts from Preliminary Examination.

The Preliminary Examinations in Arts accepted by the General Council are recognised *pro tanto*—that is to say, they exempt from examination in Arts on the subjects comprised in them, in so far as the examinations are of the same extent as those required by this University. Any subjects required by the Statutes, and not included in these examinations, or not carried out to the requisite extent, must be passed at the University. In all cases Candidates must produce Certificates of having passed such

(c) The Fee must be paid at the commencement of the Course.

(d) Or that he will have done so on or before the day of Graduation.

(e) Including Practical Pharmacy.

(f) Students who commence their Medical studies in May may appear for this Examination on the second October after the commencement of their studies, provided they have complete Certificates for two qualifying Summer Sessions and one qualifying Winter Session.

(g) Certificates for at least two years' practice must be produced on or before July 15 of the year in which the Candidate proposes to graduate.

(h) Theses must be lodged with the Dean on or before May 31 of the year in which the Candidate proposes to graduate.

examinations, with an official notice of the subjects in which they have passed.

N.B.—Theses are only required for the Degree of M.D., and none are now required for the Degree of M.B. Those who have under former regulations given in Theses when taking the Degree of M.B. require no Theses for M.D.

The fee for examination must be deposited with the Secretary at least ten days before the day of examination. In the event of the candidate not passing, the fee is not returned, but he may appear at one subsequent examination without paying an extra fee, and at any future examination on paying one-half of the fee. The fees are—For the Preliminary Examination, each Non-Matriculated Student pays a fee of 10s. This fee allows a candidate to appear at the Preliminary Examinations during one Academic year; for the Degree of M.B., three examinations, £5 5s. each, £15 15s.; for the Degree of C.M., £5 5s. additional; or the Degree of M.D., £5 5s. additional to that for M.B., exclusive of £10 Government stamp. The Graduation Fees must all be paid on or before July 15 in the year in which candidates propose to graduate.

Note.—Total fees and stamp for graduating as M.D. only, by Regulations, for Students who commenced their Medical education before February, 1861, £25.

Students are recommended to commence their Medical studies by attending a Summer Session.

MEDICAL DEGREES.—PRELIMINARY EXAMINATION IN ARTS, PROGRAMME FOR 1870-71.

I. In conformity with Section I. of the Statutes, examinations on the Preliminary Branches of extra-Professional Education will take place on Tuesday and Wednesday, October 18 and 19, 1870, and on Tuesday and Wednesday, March 21 and 22, 1871, at 10.30 o'clock a.m. Examination on Tuesdays—English, Arithmetic, Mechanics, Greek, Higher Mathematics, and German. Examination on Wednesdays—Latin, Elements of Mathematics, Natural Philosophy, French, Logic, and Moral Philosophy. 1. English.—A portion of an English author must be written to dictation; the grammatical construction of one or two sentences must be explained; the grammatical errors in a sentence ungrammatically composed must be pointed out and their nature explained, and the derivation and definition of a few English words in common use must be given. (*See* Bain's "English Grammar," and Angus "On the English Language.") 2. Latin.—Seventh Æneid of Virgil, an easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be retranslated into Latin, the more difficult Latin words being given. 3. Arithmetic.—The Common Rules, including Decimals. 4. Elements of Mathematics.—Euclid, Books i., ii., and iii., and the Rudiments of Algebra, including Simple Equations. A knowledge of Euclid alone will not be sufficient. 5. Elements of Mechanics.—Elementary Mechanics and Hydrostatics.

II. At the same dates, examinations will take place in conformity with Section II. of the said Statutes, which enacts that no candidate shall be admitted to a Professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—1. Greek.—Second Book of Xenophon's Anabasis. 2. French.—First Half of Voltaire's "Charles XII." 3. German.—Schiller's "William Tell." 4. Higher Mathematics.—Euclid, Books i. to vi.—Algebra, Trigonometry, and Conic Sections. 5. Natural Philosophy.—A general knowledge of the Elements of Natural Philosophy, as in Ganot's Physics, translated by Atkinson. 6. Logic.—Fowler's "Elements of Deductive Logic." 7. Moral Philosophy.—Stewart's "Outlines of Moral Philosophy," Part II. (M'Cosh's edition), with M'Cosh's Notes. According to the Regulations of the General Medical Council, no Medical student can be registered who has not passed English, Latin, Arithmetic, Mathematics, along with one optional subject, as French, German, Greek, Mechanics, and Natural Philosophy.

III. In Section XVII. of the said Statutes, it is enacted that the Degree of Doctor of Medicine shall not be conferred on any person unless he be a Graduate in Arts, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. Two of these must be Greek and Logic or Moral Philosophy, and the *third* may be any one of the following subjects—namely, French, German, Higher Mathematics, Natural Philosophy.

Examinations of the same extent, and on the same subjects, at other British Universities granting the Degree of M.D., will exempt from these preliminary examinations. Certificates of having passed such examinations must be produced with an official notice of the subjects on which the candidate has passed an examination.

Students who come under the old Statutes, in consequence of having commenced their Medical Curriculum by attendance on Classes before February 4, 1861, will be examined in Latin on Wednesday, October 19, 1870, and Wednesday, March 22, 1871, at 10.30 a.m. For nature of examination, see Section I. of this programme.

UNIVERSITY OF ABERDEEN.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners, dated March 16, 1861, and approved by her Majesty in Council.

The following are the Degrees in Medicine granted by this University—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examination for the Degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities' Commissioners, are nearly the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of Medical and Surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other University entitled to give the Degree of Doctor of Medicine.

FEES FOR GRADUATION.

1. Each Candidate for the degree of M.B. shall pay a fee of five guineas in respect of each of the three Professional Examinations.

2. If the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas.

3. And every Candidate for the Degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their Medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the Degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

Further information may be obtained from the Dean of the Medical Faculty, Professor Macrobin, M.D.

UNIVERSITY OF ST ANDREWS.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners; they therefore generally correspond with those of the Universities of Edinburgh, Aberdeen, and Glasgow.

The Degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examinations for these Degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for Candidates for the Degrees of Bachelor of Medicine and Master of Surgery present some difference:—

No one shall be received as a Candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of Medical and Surgical Study shall have been in one or more of the following Universities and Colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of Medical and Surgical Study may be either in one or more of the Universities and Colleges above specified, or in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of Medicine as may from time to time receive recognition from the University Court.

Attendance on the Lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen, shall not be reckoned for graduation in St. Andrews, if the fee for such Lectures be of less amount than is charged for the like Course of Lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

Every Candidate for the Degrees of Bachelor of Medicine and Master in Surgery shall be examined both in writing and *viva voce*—first, on Chemistry, Botany, Elementary Anatomy, and Materia Medica; secondly, on Advanced Anatomy, Zoology, with Comparative Anatomy, Physiology, and Surgery; and, thirdly, on Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

FEES FOR GRADUATION.

For the Degree of Bachelor of Medicine five guineas in respect of each of the three divisions of the Examination on Professional subjects; and if the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but, if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas; and every Candidate for the Degree of Doctor of Medicine, who has previously obtained the Degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a Candidate for the Degree of Bachelor of

Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

N.B.—The Degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered Medical Practitioner above the age of forty years, whose Professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiners of the sufficiency of his Professional knowledge; provided always, that Degrees shall not be conferred under this Section to a greater number than ten in any one year. Fee £52 10s.

REGULATIONS REGARDING THE EXAMINATION OF REGISTERED MEDICAL PRACTITIONERS ABOVE THE AGE OF FORTY YEARS.

Candidates for Graduation are enrolled in order of application, provided they have complied with the undermentioned conditions. Candidates shall lodge with the Professor of Medicine the following Certificates and Deposit :—

I. Certificate of Age.

II. Certificates from three Medical men, of such acknowledged reputation in the Profession, or of such standing in the Medical Schools, as shall satisfy the Senatus of the Professional position and experience of the Candidate.

III. A certain portion (viz., £10 10s.) of the Graduation Fees; which sum shall be forfeited should the Candidate fail to appear at the time appointed for examination, or should he fail to graduate.

IV. The examination shall be conducted both in writing and *viva voce*, and shall include the following subjects :—(1) Materia Medica and General Therapeutics. (2) Medical Jurisprudence. (3) Practice of Medicine and Pathology. (4) Surgery. (5) Midwifery.

(As regards the last two subjects—viz., Surgery and Midwifery—a minute knowledge shall not be required from those who do not practise these branches of the Profession.)

UNIVERSITY OF GLASGOW.

Three Degrees in Medicine are granted, viz. :—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). [The Preliminary Examination, Curriculum, and Professional Examinations for these Degrees, being in conformity with the Ordinance of the Scottish University Commissioners, are the same as for the Universities of Edinburgh, St. Andrews, and Aberdeen.]

Of the four years constituting the Curriculum, one at least shall have been passed in the University of Glasgow, and another either in that University or some other University entitled to give Degrees in Medicine.

These Statutes apply to all Candidates who commenced their Medical studies on or after October 1, 1861. Candidates who began their Medical studies before that date are entitled to obtain their Degrees according to the regulations existing at the time when they commenced their studies.

The annual term for conferring Medical and Surgical Degrees is the first day of May.

The fees for the Degrees are as follows :—For the Degree of M.B. (for each of three examinations, £5 5s.), £15 15s.; for that of C.M. (in addition to the fee for M.B.), £5 5s.; for the Degree of M.D. (in addition to the fee for M.B.), £5 5s.; and the Government stamp for the Diploma, &c., £10 3s.

The Preliminary Examinations of Medical Students in branches of General Education take place at the beginning and at the end of the Winter Session.

The regulations under which the above Degrees are granted, and the notices of the subjects of Examination, will be obtained by application to the Registrar of the University.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

ABSTRACT OF REGULATIONS FOR THE LICENCE.

1. No one can obtain the Licence of the College until he has completed the age of 21 years.

2. Every applicant for the Licence must produce satisfactory evidence that he has been engaged in the study of Medicine during a period of at least four years, and that he has attended the following Courses at a University, or at some Medical School recognised by the College: Anatomy, one Course, six months; Practical Anatomy, six months; Chemistry, one Course, six months; Practical Chemistry, three months; Materia Medica and Pharmacy, one Course, three months; Physiology or Institutes of Medicine, one Course, three months; Practice of Medicine, one Course, six months; Clinical Medicine, six months; Principles and Practice of Surgery, one Course, six months; Clinical Surgery, three months; Midwifery, one Course, three months; Medical Jurisprudence, one Course, three months; Pathological Anatomy, one Course, three months; or General Pathology, one Course, three months; Practical Pharmacy, three months.

The applicant must also produce evidence of having attended the practice of a public Hospital (containing not fewer than 80 beds) during a period of not less than twenty-four months, twelve of which must have been spent in attendance on the Medical wards.

The applicant must also have attended at least six cases of labour under the superintendence of a qualified Medical Practitioner, and must produce a certificate to that effect.

Every applicant for the Licence, before being admitted to the final Examination, will be required to produce a Certificate that he has studied Vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph; and that he is thoroughly informed in every necessary part of the subject.

3. Every applicant for the Licence must have passed the Preliminary Examination in Literature and Science before he can be admitted to the Professional Examination.

The Examination will embrace the following subjects :—1. English: Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First two Books of Euclid. 4. Latin: Translation into English, Cicero in Catilinam, Orat. I.; or Virgil, Æneid, Lib. II.—Parsing; Translation from English into Latin, the Latin words being supplied. 5. One of the following subjects, at the option of the Candidate :—1. Greek: Xenophon's Anabasis, Book III.—Homer's Iliad, Book 1. 2. French: La Fontaine's Fables. 3. German: Schiller's "Wallenstein's Tod." 4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

4. Masters and Bachelors of Arts of any British or Foreign University, whose Course of Study may from time to time be approved of by the College, will be exempted from the Preliminary Examination; also those who have passed the Examination of the National Educational Bodies, or of any of the Licensing Boards recognised by the Medical Act.

5. The Professional Examination will be divided into two parts, according to the following arrangement of subjects :—(1) Anatomy, Physiology, Chemistry; (2) Materia Medica and Pharmacy, Pathology and Pathological Anatomy, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine, including the examination of patients, as well as of various Morbid Products. No candidate will be admitted to the first examination until he has completed two, or to the second until he has completed four, years of Professional study. The examinations will be conducted partly *viva voce*, partly by written papers.

6. The following will be the periods of examination, up to October 1871 :—(1) Preliminary Examinations in Literature and Science, Saturday, 22nd October, 1870; Saturday, 5th November, 1870; Saturday, 22nd April, 1871; Saturday, 22nd July, 1871. (2) First Professional Examinations, Wednesday, 19th October, 1870; Wednesday, 18th January, 1871; Wednesday, 29th March, 1871; Wednesday, 3rd May, 1871; Wednesday, 5th July, 1871; Wednesday, 19th July, 1871; Wednesday, 18th October, 1871. (3) The Second Professional Examinations will be held on the Thursdays following the First Professional.

7. Candidates for the Licence of the College, who already possess a qualification from a recognised licensing body, or who have passed the First Professional Examination, before a qualifying body (provided it be as extensive as that required by this College), will be at once admitted to the second part of the examination.

8. Meetings for the examination of candidates who already possess a qualification from a recognised licensing body, will be held on the first Wednesday of every month (with the exception of September and October), and, if necessary, on the following days. Candidates are required to communicate with the Secretary to the College not less than eight days before the date of the examination at which they propose to appear.

9. No candidate is admissible to examination who has been rejected by any licensing board within three months previous to his examination.

10. The fee payable by a Licentiate is ten guineas. In the event of a candidate being unsuccessful at his examination, the sum of two guineas will be retained to defray expenses.

11. Candidates may be admitted to Special Examination, on days other than those appointed above, on bringing forward

reasons satisfactory to the Council, and on paying an extra fee of five guineas. Should the candidate be unsuccessful, the sum of eight guineas will be returned to him.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR THE DIPLOMA.

These are the same as those given below for the conjoined qualification in Medicine and Surgery conferred by the Colleges of Physicians and Surgeons, with the following exceptions in Professional education :—

No third Course of Medicine and no Course of Pathological Anatomy are required.

A Certificate of three months' instruction in Pathological Anatomy at the post-mortem room of a recognised Hospital will be required from Candidates commencing Professional study after October 1, 1861.

The Regulations for the Preliminary Examination in General Education generally correspond with those to be observed by Candidates for the joint qualifications of the Royal Colleges of Physicians and Surgeons, Edinburgh.

PROFESSIONAL EXAMINATIONS FOR THE DIPLOMA OF THE COLLEGE.

The regulations are generally the same as those for the Professional Examinations for the joint Diploma of the two Colleges, with the following exceptions :—

The sum of £4 must be paid to the Treasurer of the College for the First Examination, not later than 10 a.m. of the day preceding it. The sum will be considered as paid to account of the entire fee of £10 payable for the Diploma.

In the case of a Candidate being unsuccessful at this Examination, £2 will be returned to him, the remaining £2 being retained to meet the expenses of the Examination.

Registered Medical Practitioners, whose Degree or Licence in Medicine is dated prior to October 1, 1861, are exempt from the first Professional Examination. The Examinations under this regulation may take place on the first and third Tuesday of each month.

§ 7) The second Examination embraces Surgery and Surgical Anatomy; also Medicine, Midwifery, Materia Medica, and Medical Jurisprudence; and shall not take place before the termination of the Winter Session of the last year of Study.

Applications for Examination must be made to the Secretary not later than the Monday previous to the day of the first examination.

Every Candidate must produce to the Secretary—(1) Satisfactory evidence of his having attained the age of 21 years; (2) the tickets and the Certificates of his classes; (3) the Certificate of his having passed the first Professional Examination; (4) a tabular statement (for which a printed form will be furnished by the officer) exhibiting the full amount of his Professional education, and distinguishing the Classes, Hospitals, and Dispensaries attended during each Session of his studies. If he have been an apprentice, he must also insert the name of his master, the date of his indenture, and the length of time for which he was bound. This statement, accurately filled up, must be attested by his signature, and will be preserved by the College as a record.

If the Candidate have been an Apprentice to a Fellow of the College, he must also produce his discharged indenture.

The remaining fee payable to the College (being £6), together with the receipt for the fee paid for the first Professional Examination, must be lodged not later than 10 a.m. of the day preceding the Examination day, in the hands of the Treasurer, who will certify this upon the Secretary's letter. The sum of £4 will be returned to unsuccessful Candidates.

The following will be the periods of Examination for the year 1870-71 :—Preliminary Examinations in General Education will take place on Saturday, October 22, 1870; on Saturday, November 5, 1870; on Saturday, April 22, 1871; on Saturday, July 22, 1871. First Professional Examinations will take place on Tuesday, October 18, 1870; on Tuesday, January 17, 1871; on Tuesday, March 28, 1871; on Tuesday, April 25, 1871; on Tuesday, July 4, 1871; on Tuesday, July 18, 1871. Second Professional Examinations will take place immediately after the conclusion of the First Professional Examinations, at each of the above-mentioned periods. They will generally be begun on the Thursday succeeding to the day of the First Examination, and in no case on any earlier day.

THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.

The Royal College of Physicians of Edinburgh, and the Royal College of Surgeons of Edinburgh, while they still continue to give their Diplomas separately, under separate regulations, have made arrangements by which, after one series of Examinations, the Student may obtain the Diplomas of both Colleges.

The general principle of this joint Examination is, that it shall be conducted by a Board, in which each Body is represented in those branches which are common to both Medicine and Surgery; but that the College of Physicians shall take exclusive charge of the Examination in Medicine, and the College of Surgeons of the Examination in Surgery.

The object of the joint Examination is to give to Students facilities for obtaining from two separate Bodies, and at less expense, a Qualification in Medicine and a Qualification in Surgery.

Students passing that Examination successfully, will be enabled to register two Qualifications under the Medical Act,—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

The arrangement for thus conferring a Double Qualification by the co-operation of the two Colleges is in conformity with Section XIX. of the Medical Act, and received the special sanction of the General Council of Medical Education and Registration, at a Meeting held on the 7th of August, 1859.

SCHOOLS OF MEDICINE.

1. Every Candidate must have followed his Course of Study in a *University*, or in an *Established School of Medicine*, as defined below, or in a *Provincial School* specially recognised by the Colleges of Physicians and Surgeons of that division of the United Kingdom in which it is situate.

2. Under the title *Established School of Medicine* are comprehended the Medical Schools of those cities of Great Britain and Ireland in which Diplomas in Medicine or Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

PROFESSIONAL EDUCATION.

1. Candidates commencing Professional Study after September 16, 1866, must have been engaged during four years after the Examination in General Education, in Professional Study, which shall include not less than four Winter Sessions', or three Winter and two Summer Sessions' attendance at a recognised Medical School.(a)

2. The Candidate must produce certificates of having attended the following separate and distinct Courses of Lectures :—

Anatomy, Two Courses,(b) Six Months each; Practical Anatomy, Twelve Months. Or, in the option of the Candidate, Anatomy, One Course, Six Months; Practical Anatomy, Eighteen Months. Chemistry, One Course, Six Months; Practical or Analytical Chemistry, One Course, Three Months. Materia Medica, One Course, Three Months. Physiology, not less than Fifty Lectures.(c) Practice of Medicine, One Course, Six Months. Clinical Medicine, Six Months.(d) Medicine—a Third Course, which may either be Practice of Medicine or Clinical Medicine at the option of the Student, One Course, Six Months.(d) Principles and Practice of Surgery, One Course, Six Months. Clinical Surgery, One Course, Six Months.(d) Surgery—a Third Course, which may either be Principles and Practice of Surgery or Clinical Surgery at the option of the Student, One Course, Six Months.(d) Midwifery and the Diseases of Women and Children, One Course, Three Months. Medical Jurisprudence, One Course, Three Months. Pathological Anatomy, One Course, Three Months.

(c) The Six Months' Courses delivered in Scotland must consist of not fewer than one hundred Lectures, with the exception of Clinical Medicine and Clinical Surgery. The Three Months' Courses must consist of not fewer than fifty Lectures.

3. The Candidate must also produce the following Certificates :—(*a.*) Of having attended Six Cases of Labour under the superintendence of the Practitioner who signs the Certificate, who must be a Registered Medical Practitioner.

(a) Candidates commencing Study prior to the above date, will be admitted to Examination after four Winter Sessions', or three Winter and two Summer Sessions' attendance on Classes at a regular Medical School.

(b) The two Courses must not be attended in the same Session.

(c) In those Schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these Courses will be received as a Course of Anatomy, and the other as a Course of Physiology.

(d) Two Courses of Clinical Medicine, of three months each, if not simultaneous, will be held equivalent to one Course of six months. They must be attended during the period of attendance at the Hospital where they are delivered. The same rules will apply to Clinical Surgery.

(e) A Certificate of attendance on the Post-mortem Examinations at a General Hospital will be accepted in lieu of this Course

(*b.*) Of having attended, for three months, instruction in Practical Pharmacy. The Certificate to be signed by the Teacher, who must be a Member of the Pharmaceutical Society of Great Britain, or a Chemist and Druggist recognised by either College, on special application, or the Superintendent of the Laboratory of a Public Hospital or Dispensary, or a Registered Practitioner who dispenses medicines to his patients. (*c.*) Of having attended, for twenty-four months, a Public General Hospital containing, on an average, at least eighty patients. (*d.*) Of having attended, for six months, the Practice of a Public Dispensary specially recognised by either College; or of having been engaged for six months as visiting Assistant to a Registered Practitioner. (*e.*) Of having been instructed in Vaccination. The Certificate to be signed by the Teacher, who must be a Registered Practitioner.(f)

4. The following Order of Study is recommended as a guide to the Student, though not enjoined:—First Year: Anatomy, Practical Anatomy, Chemistry, Practical or Analytical Chemistry, Hospital. Second Year: Anatomy, Practical Anatomy, Physiology, Surgery, Materia Medica (the last either in this or the Third Year), Hospital. Third Year: Practice of Medicine, Clinical Surgery, Practical Anatomy, Practical Pharmacy, Clinical Medicine, Pathological Anatomy, Hospital. Fourth Year: Surgery or Clinical Surgery, Midwifery and the Diseases of Women and Children, Practice of Medicine or Clinical Medicine, Medical Jurisprudence, Practical Midwifery, Hospital.

5. It is strongly recommended to Students to avail themselves of any opportunities which they may possess of attending Lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope, in addition to the Courses of Instruction which are absolutely required.

PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

1. All Students who intend becoming Candidates for the Diplomas of the Colleges must have passed the complete Examination in General Education, and have had their names inscribed in the Register of Medical Students instituted by the General Medical Council, at the commencement of their Professional Studies.

2. The following will be the Preliminary Examination in General Education for the Double Qualification in Medicine and in Surgery conferred conjointly by the Royal Colleges of Physicians and Surgeons, and also for the separate Diploma of each College, for 1870-71:—1. English Language, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including simple Equations. 4. Geometry: First Two Books of Euclid. 5. Latin: Translation from one of the two following Books at the option of the Candidate, viz.:—Cicero in Catilinam, Orat. I.; Virgil, Æneid, Lib. II.; and of an easy passage from a Book not prescribed; Exercises in Parsing, and in rendering English correctly into Latin, the Latin words being supplied. 6. One of the following subjects at the option of the Candidate:—(1.) Greek, Xenophon's Anabasis, Book III., and Homer's Iliad, Book I. (2.) French, La Fontaine's Fables. (3.) German, Schiller's "Wallensteins-Tod." (4.) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. N.B.—In Greek, French, and German, parsing of words from the passages given to be translated will be required; also translation of short sentences from English into the respective languages.

3. Testimonials of proficiency granted by certain Educational Bodies will be accepted as sufficient evidence of General Education, and will exempt from the Preliminary Examination.

4. The Preliminary Examinations shall take place at stated periods, and shall be conducted by a special Board of Examiners in Arts, to be chosen from time to time by the Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh.

5. Students who intend to undergo the Preliminary Examination shall give in their names, addresses, and places of birth to the Officer of either College, not later than three days before the day of Examination, and shall pay a fee of 10s., not to be returned in case of rejection, but will be admissible to re-examination at a future period without paying another fee.

6. Candidates, the commencement of whose Professional Studies was prior to September 17, 1866, may pass the Preliminary Examination in General Education at any of the periods previous to the first Professional Examination, but are recommended to do so at the earliest possible period. Candidates under this Regulation who have not passed a Preliminary Examination in General Education, will be admitted to a special Examination in General Education previously to their first Professional Examination. For this they shall pay a fee of £1.

PROFESSIONAL EXAMINATIONS.

1. Candidates for the Double Qualification shall be subjected to two Professional Examinations, to be conducted at separate times, partly in writing and partly orally.

2. Opportunities for both Examinations will be presented six times in each year. On each of these occasions the Candidates shall assemble for the purpose of writing answers to the questions proposed. The oral Examinations will be conducted on the days immediately succeeding.

3. Unsuccessful Candidates at either the First or Second Examination shall be remitted to their Studies for a period to be determined by the judgment of the Examiners, but not in any case less than three months.

4. The First Examination shall embrace Anatomy, Physiology, and Chemistry, and shall take place not sooner than the end of the second Winter Session.

5. Candidates who desire to pass the First Professional Examination must apply to the Inspector of Certificates on or before the Saturday preceding the day of Examination,(g) and must produce Certificates of attendance in regard to all those of the required Courses of Lectures which have reference to the subjects of that Examination. They must also produce a Certificate of having passed the Preliminary Examination.

6. The sum of £6 must be paid to the Inspector of Certificates for this Examination, not later than 10 a.m. of the day preceding it. This sum will be considered as paid to account of the entire fee of £16 payable for the two Diplomas.

7. In the case of a Candidate being unsuccessful at this Examination, £4 will be returned to him; the remaining £2 being retained to meet the expense of Examination.

8. The Second Examination shall embrace Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and shall not take place before the termination of the Winter Session of the last year of study. In the case of Candidates who began their course of study after September 16, 1866, it will not take place till four years after the Examination on General Education.

9. Applications for Examination must be made to the Inspector of Certificates not later than the Tuesday previous to the day of Examination.(g)

10. Every Candidate must produce to the Inspector—1st. Satisfactory evidence of his having attained the age of twenty-one years; 2nd. A Certificate of his having passed the Preliminary Examination, unless this Certificate have already been seen by the Inspector of the Colleges; 3rd. A Certificate of his registration in the books of the General Medical Council; 4th. A Certificate of his having passed the First Professional Examination; 5th. The Certificates of his classes, and the other Certificates required; and 6th. A tabular statement (for which a printed form will be furnished by the Inspector), exhibiting the full amount of his Professional education, and distinguishing the Classes, Hospitals, and Dispensaries attended during each Session of his Studies. The tabular statement, accurately filled up, must be attested by his signature, and will be preserved by the Colleges as a record.

11. The fee payable for this Examination, which shall be £10, must be lodged with the Inspector not later than 10 a.m. of the day preceding the Examination day.

12. On the production of the above documents, and after receiving the fees, the Inspector shall give the Candidate a letter authorising the Examiners to take him on trial.

13. In case of a Candidate being unsuccessful at the Second Examination, £8 will be returned to him; the remaining £2 being retained to meet the expense of the Examination.

14. Candidates who have passed the First Professional Examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the Second Professional Examination, on producing Certificates of the whole Course of Study prescribed, and of having passed their Preliminary and First Professional Examinations. If any of the three subjects of the First Examination have been omitted, such Candidates will have to undergo an Examination on the

(f) By a Regulation of the Privy Council, of date December 1, 1859, no one can be appointed as a contractor for Vaccination under the English Poor-law who does not produce a certificate of proficiency in Vaccination from a person authorized by the Privy Council to grant the same.

(g) Candidates at a distance are requested to send their Certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters; as much disappointment has been occasioned by the discovery of defects in their Course of Study when it was too late to rectify them by the production of documents.

omitted subjects; and none of the subjects will be omitted at the Second Examination, even if some of them should have formed part of the First Examination by another Board. The fee payable by such Candidates is £16, and unsuccessful Candidates will receive back £14.

15. In addition to the Written and Oral Examinations, all Candidates shall be subjected to a Practical Clinical Examination in Medicine and Surgery, which shall include the Examination of Patients, Physical Diagnosis, the Use of the Microscope, Surgical Appliances, Bandages, &c.

16. Candidates desirous of Special Examinations on other days than those fixed by the Regulations, must prepare a case to be submitted for the consideration of the authorities of the Colleges, with evidence to show why it was and is impossible for them to avail themselves of the Ordinary Examinations past and future. They must *at the same time* produce certificates of the whole of the prescribed Course of Study and of the Preliminary Examination, and state the earliest and the latest days within which they can present themselves. It is very desirable that all such Candidates, and especially those who are at a distance from Edinburgh, should present their applications as long beforehand as possible.

The fees for Special Examinations are as follows:—£28 for First and Second Examinations, of which £22 will be returned to Candidates remitted on the First Examination, and £10 to Candidates successful in the First, but unsuccessful in the Second Examination. £25 for Second Examination, when the Candidate has passed the First under the conditions of § 14. Of this £16 will be returned to the Candidate if unsuccessful. £19 for Second Examination, when the Candidate has passed the First before the Examiners of the Colleges. Of this £10 will be returned to the Candidate if unsuccessful.

17. No Candidate shall be admissible to Examination who has been rejected by any other Licensing Board within the three months preceding his Examination.

I. *Preliminary Examinations in General Education.*—On Saturday, October 22, 1870; on Saturday, November 5, 1870; on Saturday, April 22, 1871; on Saturday, July 22, 1871.

II. *First Professional Examinations.*—On Tuesday, October 25, 1870; on Tuesday, January 24, 1871; on Tuesday, April 4, 1871; on Tuesday, May 2, 1871; on Tuesday, July 11, 1871; on Tuesday, July 25, 1871.

III. *Second Professional Examinations.*—These will take place immediately after the conclusion of the First Professional Examinations, at each of the above-mentioned periods. In no case will they be begun on an earlier day than the Thursday of any period, nor will they usually be later than that day.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

ABSTRACT OF REGULATIONS FOR THE LICENCE, 1870-71.

Course of Study.—(1). Anatomy, two courses, six months each. (2). Practical Anatomy, twelve months. (3). Chemistry, one course, six months. (4). Practical or Analytical Chemistry, one course, three months. (5). Physiology, not less than fifty Lectures. (6). Practice of Medicine, one course, six months. (7). Clinical Medicine, one course, six months. (8). Principles and Practice of Surgery, one course, six months. (9). Clinical Surgery, one course, six months. (10). In addition to the above courses of Surgery and Clinical Surgery, one six months' course of either of these at the option of the Student: Materia Medica, one course, three months. (11). Midwifery and the Diseases of Women and Children, one course, three months. (12). Medical Jurisprudence, one course, three months. (13). Practical Midwifery, attendance on at least six cases of labour. (14). Pathological Anatomy, three months' instruction in the post-mortem room of a recognised Hospital. (15). Practical Pharmacy, three months' practical instruction. (16). Hospital and Dispensary Practice, twenty-four months' attendance on the practice of a public General Hospital, containing on the average at least eighty patients.

A Certificate of Proficiency in Vaccination, from a Vaccine Institution recognised by the Faculty, will be required of every Candidate. Candidates (not exempted from Registration) presenting themselves after October, 1870, must have been engaged in Professional Study during four years from the date of Registration, which shall include not less than four Winter Sessions' or three Winter and two Summer Sessions' attendance at a recognised Medical School.

Candidates are subjected to two Professional Examinations. The First Examination embraces Anatomy, Physiology, and Chemistry, and cannot be undergone before the end of the second Winter Session of Study.

The Second Examination embraces Surgery and Surgical Anatomy, Medicine, Materia Medica, Midwifery, and Medical Jurisprudence, and cannot be undergone before the termination of the full period of Study.

Intending Candidates for the Second Examination must produce evidence—1st, of being 21 years of age; and 2nd, of having passed the First Examination. They will also present to the Secretary for inspection their Class and Hospital Certificates, and write out a tabulated statement of their whole course of Study, for which the Secretary, on application, will supply Candidates with printed forms.

The fee for the Diploma is £10—£4 for the First and £6 for the Second Examination.

First Examinations will be held on the second Tuesday of every month. Second Examinations will take place, the written part on each of the above days, and the oral and Clinical parts on the succeeding day. A Candidate, on showing a sufficient reason, may be admitted to examination on a day specially arranged, by paying an extra fee of £3.

All applicants for the Licence must be registered on the form prescribed by the General Medical Council at the commencement of Professional study.

Candidates who possess a qualification to practise, or who have passed the Examination in Anatomy, Physiology, and Chemistry before any of the Licensing Boards, will be admitted to the Second Examination on producing evidence of having attended the full Curriculum, and paying the fee of £10.

DOUBLE QUALIFICATION.

The Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, while they still continue to give their Diplomas separately, under separate regulations, have made arrangements by which, after one series of Examinations, the Student may obtain two separate Licences—one in Medicine and one in Surgery.

The Fee for the two diplomas granted conjointly is £16—£6 for the First and £10 for the Second Examination.

The First Examination for the Double Qualification will be held in the Faculty Hall, Glasgow, on October 6, 1870, January 12, April 6, May 4, and July 6, 1871, and on each occasion it will be continued on the succeeding day. The Second Examination will be held, the written part on each of the above days, and the oral part on the succeeding day. Applications to be admitted, either to the First or the Second Examination, must be made to the Secretary of the Faculty not later than the Monday preceding the Examination.

PRELIMINARY EXAMINATIONS CONDUCTED BY THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, SESSION 1870-1871.

1. Preliminary Examinations in General Literature in accordance with the regulations of the General Medical Council will be held in the Faculty Hall during the Session 1870-71 on the following days, commencing at eleven o'clock, viz.:—Friday, October 21, and Friday, November 4, 1870; Friday, April 28, and Friday, July 21, 1871; and on each occasion the Examination will be continued on the succeeding day.

The Examination will embrace the following subjects:—1. English Language. 2. Latin. 3. Arithmetic; Algebra. 4. Geometry. 5. One of the following subjects at the option of the Candidate:—(1). Natural Philosophy—Mechanics, Hydrostatics, and Pneumatics. (2). Greek. (3). French. (4). German.

The Fee for the Examination and Certificate is 10s., payable to the Secretary previous to the Examination.

FACULTY OF MEDICINE IN IRELAND.

UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES, AND LICENCES TO PRACTISE.

The following Bodies grant one or more Degrees or Licences to Practise Medicine or Surgery, and provide courses of instruction in the Medical Sciences:—The University of Dublin grants the Degrees of M.B. or Bachelor of Medicine; M.D. or Doctor of Medicine; M.C. or Master of Surgery; also Licences in Medicine (L.M.) and Surgery (L.S.). The Queen's University in Ireland, with its Provincial Colleges at Belfast, Cork, and Galway. This University confers the Degrees of M.D. and M.Ch. The King and Queen's College of Physicians in Ireland, grants a Licence and a Fellowship. This Institution, in connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland grants Letters Testimonial qualifying to practise Surgery as a Licentiate, and also confers a Fellowship. Fellows and Licentiates of the Colleges of Physicians and Surgeons may

obtain from their respective Colleges a Diploma in Midwifery. The Rotundo and Coombe Lying-in Hospitals grant Diplomas in Midwifery, which are, however, not recognised under the Medical Act. The Governor and Company of the Apothecaries' Hall of Ireland also confer a Diploma.

The Medical Session in Ireland commences about the first week in November.

UNIVERSITY OF DUBLIN.

SCHOOL OF PHYSIC.

The School of Physic in the University of Dublin is under the joint control of the Board of Trinity College and of the President and Fellows of the College of Physicians.

MATRICULATION.

All Students of the School of Physic must be matriculated by the Senior Lecturer of Trinity College, for which a fee of five shillings is payable. No Student can be admitted for the Winter Courses after November 25.

DEGREES AND LICENCES IN MEDICINE AND SURGERY.

The Act 21 and 22 Vict., c. 99, recognises, as qualifications for Medical and Surgical Practitioners, the Degrees and Licences in Medicine and Surgery granted by the University. The Degrees are—1. Bachelor of Medicine. 2. Doctor of Medicine. 3. Master in Surgery.

UNIVERSITY DEGREES.

1. *Bachelor in Medicine.*—A candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same Commencement as that at which he receives his Degree of B.A., or at any subsequent Commencement, provided the requisite Medical education shall have been completed. The Medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on the following Courses of Lectures, viz. :—Courses of five months' duration (November to April)—Anatomy, Practical Anatomy (with Dissections), Surgery, Chemistry, Practice of Medicine, Midwifery. Courses of three months' duration (April to July)—Botany, Practical Chemistry, Medical Jurisprudence, Materia Medica and Pharmacy, Institutes of Medicine.

Hospital Attendance.—1. Nine months' attendance on the Clinical Lectures of Sir Patrick Dun's Hospital. 2. Nine months' additional attendance on the Clinical Lectures of any Hospital recognised by the Board. 3. Instruction in Practical Midwifery, including not less than six deliveries. 4. Certificate of personal attendance on Fever Cases, stating name and date of each case.

Any of the above-named six or three months' Courses may be attended at any Medical School in Dublin recognised by the Provost and Senior Fellows (and three of them, at the discretion of the Candidate, may be attended in the University of Edinburgh), provided the Candidate have kept an *Annus Medicus* in the School of Physic.

The Schools recognised are—1. The School of the Royal College of Surgeons in Ireland. 2. The Carmichael School. 3. The School of Dr. Steevens' Hospital. 4. The St. Peter-street School. 5. The School of the Catholic University. The recognition of these Schools is conditional on their Students being furnished with *bonâ fide* Certificates of an amount of regular attendance equivalent to that required by the University—viz., three-fourths of the entire number of Lectures in each Course.

An *Annus Medicus*, or a year's attendance in the School of Physic, may be kept in three ways:—1. By attending at least two, or not more than three, of the foregoing Courses, which are of six months' duration. 2. By attending one Course of six months' and two of three months' duration. 3. By nine months' attendance on Sir Patrick Dun's Hospital and Clinical Lectures; together with one Course of six months, or, in lieu thereof, two Courses of three months' duration.

The fee for nine months' attendance at Sir Patrick Dun's Hospital is twelve guineas. The fee for each Course of Lectures is three guineas. The fee for the *Liceat ad Examinandum* is £5. The fee for the degree of M.B. is £11.

2. *Doctor in Medicine.*—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the Degree of M.B. for three years, and must perform exercises for the Degree before the Regius Professor of Physic in accordance with the rules and statutes of the University. Total amount of fees for this Degree, £13.

3. *Master in Surgery.*—The Degree of Master in Surgery can only be obtained by Students who are Bachelors of Arts, and who have completed the Professional Curriculum and passed the examinations required. The Curriculum extends over a period of four years, and comprises attendance upon the following Courses of Lectures, viz.: Anatomy, one Course; Demonstrations, three Courses; Dissections, three Courses; Theory and Practice of Surgery, two Courses; Practice of Medicine, one Course; Chemistry, one Course; Materia Medica, one Course; Midwifery, one Course; Practical Chemistry, one Course; Botany, one Course; Medical Jurisprudence, one Course.

Hospital Attendance.—Three Sessions, each of nine consecutive months' duration, in any recognised Hospital, together with attendance on the Clinical Lectures on Medicine and Surgery there delivered. Any of the above-named Courses may be attended at any of the Medical Schools of Dublin recognised by the Board, provided the candidate has kept an *Annus Medicus* in the School of Physic. The following Hospitals are recognised by the Board:—1, Sir Patrick Dun's School of Physic Hospital; 2, Meath Hospital; 3, Richmond, Whitworth, and Hardwicke Hospitals; 4, Dr. Steevens' Hospital; 5, Jervis-street Infirmary; 6, City of Dublin Hospital; 7, Mercer's Hospital; 8, St. Vincent's Hospital; 9, Adelaide Hospital; 10, Mater Misericordiæ Hospital. Of the Courses of Lectures, which are of five months' duration, not more than three can be attended during any one Session. Candidates will also be required to perform Surgical operations on the dead subject. Candidates for the Degree of Master in Surgery, who have already passed the Examination for the Degree of Bachelor of Medicine, will be examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5. Fee for the Degree of M.Ch., £11.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed four years in Medical studies. Candidates for the Licences in Medicine or Surgery must pass the following Examination in Arts, unless they be Students in the Senior Freshman or some higher class:—Homer's Iliad, Books I., II. (omitting Catalogue of ships), III.; Lucian's Dialogues (Walker's edition); Xenophon's Anabasis, Books I., II., III.; Virgil, Æneid, Books I., II., III.; Sallust; Horace, Satires; Latin Prose Composition; English Prose Composition; English History; Modern Geography; Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III. In case the Student should wish to continue the Undergraduate Course in Arts, with a view to the Degree of B.A., his answering in the above will be reckoned as equivalent to the Entrance Examination, and the Hilary Examination of the Junior Freshman year. Students who have passed the foregoing Examination will be required to pay the admission fee of £15.

1. *Licentiate in Medicine.*—The Medical Course and Examination necessary for the Licence in Medicine is the same as for the Degree of M.B., with the exception that any General Hospital approved by the Board of Trinity College may be substituted for Sir Patrick Dun's. Candidates who are already Licentiates in Surgery of the Royal College of Surgeons in Ireland, or Members of the College of Surgeons of England, on passing the foregoing Arts Examination, will be admitted to Examination for the Licence in Medicine. Fee for the *Liceat ad Examinandum*, £5. Fee for the Licence in Medicine, £5.

2. *Licentiate in Surgery.*—The Surgical Course and Examination necessary for the Licence in Surgery are the same as for the Degree of Master in Surgery. Fee for the *Liceat ad Examinandum*, £5. Fee for the Licence in Surgery, £5.

Total Expense of obtaining the Degrees of Bachelor in Medicine and Master in Surgery.—I. Lectures: 1. Anatomy (one Course), £3 3s. 2. Practical Anatomy (three Courses), £9 9s. 3. Dissections (three Courses), £12 12s. 4. Surgery (two Courses), £4 4s. 5. Practice of Medicine, £3 3s. 6. Chemistry, (two Courses), £4 4s. 7. Materia Medica and Pharmacy, £3 3s. 8. Midwifery, £3 3s. 9. Botany. 10. Medical Jurisprudence, £3 3s. 11. Institutes of Medicine, £3 3s.—II. Hospitals: 1. Sir P. Dun's (first year), £12 12s. 2. Second and third years' attendance, £15 15s. Practical Midwifery, £3 3s. III. Degrees: 1. *Liceat ad Examinandum in Medicina*, £5. 2. *Liceat ad Examinandum in Chirugia*, £5. 3. M.B. Degree, £11. 4. M.Ch. Degree, £11.—Total Expenses: 1. Lectures, £49 12s. 2. Hospitals, £31 10s. 3. Degrees, £32. 4. Private Tuition, £20. Total, £133 2s. N.B.—As no Degrees in Medicine or Surgery are conferred except upon Graduates in Arts, the expense of the Degree of Bachelor in Arts, amounting altogether to £82 4s., should be added to the foregoing, making the total cost something over £200.

THE QUEEN'S UNIVERSITY IN IRELAND,

granting the Degrees of Doctor in Medicine and Master in Surgery, includes three Colleges—the Queen's Colleges of

Belfast, Cork, and Galway, each of which possesses a Faculty of Medicine. The Curriculum of Medical Study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Natural History, Anatomy, and Physiology, Practical Anatomy, Materia Medica, and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above Course of Lectures must be attended in some one of the Queen's Colleges; the remainder may be taken, at the option of the Candidate, in any University, College, or School recognised by the Senate of the Queen's University. Candidates are required before graduating to have also attended in one of the Colleges of the Queen's University Lectures on Experimental Physics, and on one Modern Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the Practice during six months of a recognised Medico-Chirurgical Hospital, containing at least sixty beds, together with Clinical Lectures delivered therein; and to attend during the second period a recognised Midwifery Hospital, with the Clinical Lectures therein delivered, for a period of three months; or a Midwifery Dispensary for the same period; or ten cases of Labour, under the superintendence of the Medical officer of any Hospital or Dispensary where cases of labour are treated; and eighteen months' Practice of a recognised Medico-Chirurgical Hospital, containing at least sixty beds, and in which Clinical Instruction is delivered. There are two University Examinations; one comprising the subjects of study in the first period, the other the subjects of the second period. The University Examinations are held twice in each year, in June and September. Further information will be found in the "Queen's University Calendar," or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RELATIVE TO THE LICENCE IN MEDICINE.

Examinations for the Licence in Medicine are statedly held on the second Wednesday in each month (except August and September).

The name of every Candidate, together with his Schedule and the documents hereafter mentioned, must first be submitted to the College at one of its meetings. These are held regularly on the first Friday in each month (except August and September), and no name can be received later than the Monday previous to such meeting. If permission to be examined is granted, the Candidate may present himself at the next Examination, or at a subsequent one; in the latter case, however, he must intimate his intention three clear days before the Examination.

CURRICULUM.

A Candidate who has not, previous to entering his name, obtained any Medical or Surgical Qualification recognised by the College, must produce—1. Evidence of having been engaged in the study of Medicine for four years. 2. A Certificate of having passed the Preliminary Examination of one of the recognised Licensing Corporations before the termination of the second year of Medical Study. 3. Certificates of having studied at a School or Schools recognised by the College the following subjects, viz.:—Practical Anatomy; Anatomy and Physiology, or Institutes of Medicine; Botany; Chemistry; Practical Chemistry; Materia Medica; Practice of Medicine and Pathology; Surgery; Midwifery; Medical Jurisprudence. 4. Certificates of having attended a Medico-Chirurgical Hospital in which regular Courses of Clinical Lectures are delivered, together with Clinical Instruction, for twenty-seven months. 5. A Certificate of having attended Practical Midwifery for six months at a recognised Lying-in Hospital, or evidence satisfactory to the College in each individual case of having attended Practical Midwifery. 6. Certificates of character from two registered Physicians or Surgeons.

A Candidate who has already obtained a Medical or Surgical Qualification recognised by the College, is required to fill up a Schedule which will be supplied on application, and to lodge it in the same manner as a Candidate not previously qualified; but the only documents he is required to produce are his Diploma or Certificate of Registration, and the Certificate of Practical Midwifery, and Testimonials as to character.

EXAMINATION FOR THE LICENCE IN MEDICINE.

The Examination is conducted, first by printed questions to be answered in writing, and afterwards *viva voce*, and consists of two parts. The subjects of the First Part or Previous Examination are—Anatomy, Physiology, Botany, Chemistry. The subjects of the Second Part or Final Examination are—Materia Medica, Practice of Medicine, Medical Jurisprudence, Midwifery.

Candidates qualified as follows are required to undergo the *second part* of the Professional Examination *only*, viz.:—1. Graduates in Medicine of a University in the United Kingdom, or of any Foreign University approved by the College. 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh, who have been admitted upon Examination. 3. Graduates or Licentiates in Surgery. 4. Candidates who, having completed the Curriculum above mentioned, have passed the Previous Examination of any of the Licensing Corporations in the United Kingdom.

Candidates who are Physicians or Surgeons of five years' standing are further exempted from the written portion of the Final Examination.

Fees.—Fee for the Licence in Medicine, £15 15s. Fee for Licence in Medicine, and Diploma in Midwifery (for which latter there is a separate Examination), if taken out within an interval of a month, £16.

Further information and blank Schedules can be obtained by application, personally or by letter, to the Registrar, College of Physicians, Kildare-street, Dublin.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

I.—REGISTRATION OF PUPILS.

Every person requiring to be registered as a Pupil on the College books shall, if the Council think fit, be so registered if he shall have laid before the Council a receipt showing that he has lodged, to the credit of the President and for the use of the College, in the Bank of Ireland, a registry fee of five guineas.

II.—QUALIFICATIONS OF CANDIDATES FOR LETTERS TESTIMONIAL.

Every Registered Pupil shall be admitted to an Examination for Letters Testimonial if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged a sum of twenty guineas in the Bank of Ireland to the credit of the President and for the use of the College.

b. A Certificate that he has passed an Examination as to his acquaintance with the Greek and Latin Languages.

c. Certificate showing that he has been engaged in the study of his Profession for not less than four years.

d. Certificates of attendance on an Hospital recognised by the Council, where Clinical Instruction is given during three years.

e. Certificates of attendance on three Courses of Lectures on Anatomy and Physiology; three Courses of Lectures on the Theory and Practice of Surgery, and of the performance of three Courses of Dissections, accompanied by demonstrations; also Certificates of attendance on two Courses of Lectures on Chemistry, or one Course of Lectures on General and one on Practical Chemistry; one Course of Lectures on Materia Medica; one Course of Lectures on the Practice of Medicine; one Course of Lectures on Midwifery; one Course of Lectures on Medical Jurisprudence; and one Course of Lectures on Botany.

QUARTERLY EXAMINATION.

1. Examinations are held Quarterly, on the second Tuesday in February, May, August, and November, at which Candidates shall be divided into two classes—Junior and Senior.

2. The Junior Class shall produce Certificates of having attended three Courses of Lectures on Anatomy and Physiology, three Courses of Lectures on Practical Anatomy, with Dissections; two Courses of Lectures on Chemistry, one Course of Lectures on Materia Medica, one Course of Lectures on Botany, and one Course of Lectures on Forensic Medicine.

3. This class shall be examined in Anatomy, Physiology, and Materia Medica.

4. The fee for this examination shall be five guineas; not to be returned in case of rejection, but to be allowed in the fee for the second examination.

5. The Senior Class shall produce Certificates of having attended three Courses of Lectures on the Theory and Practice of Surgery, one Course of Lectures on the Practice of Medicine, and one Course of Lectures on Midwifery; also Certificates of attendance on a recognised Hospital for three Winter and three Summer Sessions.

6. This Class shall be examined in Surgery, Operative Surgery, the Practice of Medicine, and form of Prescription.

7. Both these examinations shall be partly written and partly oral.

8. The fee for this examination shall be fifteen guineas.

Fees to be paid by Candidates for Letters Testimonial.—1. The Candidate pays ten shillings for his Preliminary Examination.

2. Five guineas as Registered Pupil of the College.

3. Five guineas for the Junior Class Examination, which is not returned in case of rejection, but is allowed in the fee for his second examination.

4. Fifteen guineas for the Senior Class Examination—total, £26 15s.

5. In addition to the foregoing, a fee of one guinea is to be paid to the Registrar, on handing each Licentiate his Diploma.

6. Every Candidate rejected at the Quarterly Examination shall be required to pay to the College the sum of two guineas on applying for re-examination, so as to recompense the College for the necessary expense.

III.—QUALIFICATIONS OF CANDIDATES FOR THE FELLOWSHIP.

Every Registered Pupil or Licentiate shall be admitted to examination for the Fellowship if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged in the Bank of Ireland, for the use of the College, if he be a Licentiate, the sum of twenty guineas, or thirty-five in case he be a Registered Pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the Candidate intend to reside in Dublin, or within ten miles thereof, he shall lodge, if he is a Licentiate, thirty guineas; or if he be a Registered Pupil, forty-five guineas. Fellows entering on the country list, who may subsequently settle as Practitioners in Dublin, or within ten miles thereof, shall pay ten guineas to the College.

b. A Certificate that he is twenty-five years of age.

c. A Certificate that he is a Bachelor of Arts of some University, or that he has been examined in such manner as the Council may from time to time direct, with a view to ascertain that he has obtained a liberal preliminary education.

d. A Certificate, signed by two or more Fellows of the College, of good general conduct during his Professional education.

e. Certificates that he has been engaged in the acquisition of Professional knowledge for a period of not less than six years, during three of which he must have studied in one or more of the Schools or Hospitals recognised by the Council. He may have studied for the other three years in any School or Schools of the United Kingdom which shall be approved by the Council, or in any Foreign School of repute. It is also required that the Candidate shall have had opportunities of practical instruction as House-Surgeon or Dresser in a recognised Hospital.

f. Certificates of attendance on the several Courses of Lectures required to be attended by Candidates for Letters Testimonial, together with one Course of Lectures on Comparative Anatomy and one Course on Natural Philosophy.

g. A Thesis on some Medical subject or Clinical reports, with observations of six or more Medical or Surgical cases taken by himself.

h. Candidates of the required age, who shall have taken the Degree of Bachelor of Arts in a British or Irish University, and have complied with the foregoing regulations in other respects, will be admitted to examination at the end of five years of Professional Study, of which three years must have been passed in one or more of the recognised Schools or Hospitals.

i. Licentiates of the College, who may not be able to show that they have followed the course of study specified in the preceding regulations, may, at the expiration of ten years from the date of their Diploma, be admitted to the examination required for the Fellowship, provided they produce such evidence as shall be satisfactory to the Council that they have conducted themselves honourably in the practise of their Profession.

PRELIMINARY EXAMINATION, REGISTRATION, AND MATRICULATION.

Registered Pupils are admitted to answer the Preliminary Examination at any period previous to the final Examination for Letters Testimonial.

Students who are not Registered Pupils are also admitted to answer the Preliminary Examination at any period previous to the final Examination for Letters Testimonial, upon payment of a matriculation fee of ten shillings.

The following are the subjects upon which each Candidate for the Preliminary Examination will be examined, viz.—The English Language, including Grammar and Composition. Arithmetic, including Vulgar and Decimal Fractions. Algebra, including Simple Equations. Geometry, first two Books of Euclid. Latin and Greek, including Translations and Grammar. In Greek—The Gospel of St. John, the Menippus of Lucian, or the First Book of Xenophon's Anabasis. In Latin—The First and Second Books of the Æneid of Virgil, the Jugurthine War of Sallust, or the Third Book of Livy. These Examinations are held quarterly, viz.:—On the Third Wednesday in January, April, July, and October in each year. Fee, ten shillings.

Candidates are requested to enter their names, and pay the fee to the Registrar, at least three days previous to the day of Examination.

THE APOTHECARIES' HALL OF IRELAND.

BYE-LAWS AND REGULATIONS.

Every Candidate for the Licence to practise is required to undergo a Preliminary and a Professional Education and Examination.

THE PRELIMINARY EDUCATION AND EXAMINATION IN ARTS.

Compulsory.—1. English: Grammar, Composition, and the leading events of English History. 2. Arithmetic and Algebra: The Ordinary Rules of Arithmetic; Vulgar and Decimal Fractions; Algebra, to Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: The Catiline War of Sallust, and the first Three Books of the Æneid of Virgil. 5. Greek: The Gospel of St. John, and the first twenty Dialogues of Lucian, or the first two Books of the Iliad of Homer. 6. French: Telemachus or Charles XII.

Optional.—1. Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. 2. Natural History: The Classification and Elementary Structure of Vegetables and Animals.

THE ARTS EXAMINATIONS

will be held at the Hall four times in the year—viz., the third Friday in the months of January, April, July, and October, at the hour of two o'clock p.m. It will be conducted by means of printed papers and by Special Examiners (Graduates in Arts of the Universities of Dublin), with Assessors from the Court of the Hall; the answers to the papers will be required in writing.

Numerical values will be attached to the answers, and only Candidates who attain a certain proficiency will obtain "the Certificate in Arts," or "the Certificate of Apprentice."

Unsuccessful Candidates will be remitted to their Studies for a period of six months.

THE PROFESSIONAL EDUCATION AND EXAMINATIONS.

Every Candidate for the Licence to practise must produce Certificates to the following effect:—

1. Of having passed an Examination in Arts previously to entering on Professional study.

2. Of being at least twenty-one years of age, and of good moral character.

3. Of Apprenticeship to a qualified Apothecary, or of having been engaged at Practical Pharmacy with an Apothecary for a period of three years subsequent to having passed the Examination in Art.

4. Of having spent four years in Professional Study.

5. Of having attended the following Courses, viz.:—Chemistry, during one Winter Session; Anatomy and Physiology, during two Winter Sessions; Demonstrations and Dissections, during two Winter Sessions; Botany and Natural History, during one Summer Session; Materia Medica and Therapeutics, during one Summer Session; Practical Chemistry (in a recognised Laboratory), during three months; Principles and Practice of Medicine, during one Winter Session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (attendance upon twenty cases); Surgery, during one Winter Session; Forensic Medicine, during one Summer Session; Instruction in the Practice of Vaccination.

6. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two Winter and two Summer Sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one Winter and one Summer Session.

7. Of having performed the operation of Vaccination successfully under a recognised Vaccinator.

The Examination for the Licence to practise is divided into two parts:—The First Part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy. The Second—Medicine, Surgery, Pathology, Midwifery, Forensic Medicine, and Hygiene. The First Part may be undergone at

the close of the second Winter Session, and after the Candidate has attended the Courses upon the several subjects named for this Examination; and the Second after the completion of his studies at the termination of the fourth Winter Session.

The Professional Examinations will be held quarterly, and will commence on the first and second Mondays in the months of January, April, July, and October.

Candidates for the Licence must lodge their testimonials, and enrol their names and addresses with the Clerk at the Hall, in Dublin, a week prior to the day of Examination.

TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

In order to confine the whole of this week's Number to information specially important to Students, we are compelled to defer answers to several Correspondents, together with all notices of passing events, until next week.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 10, 1870.

A WORD TO STUDENTS.

Among the difficulties with which the student just entering on his career has to contend is a want of knowledge how to set to work with most advantage. The discipline which enables him later on to turn to any subject at a moment's notice has yet to be acquired—he is apt to be fitful instead of systematic. As men advance in life, habit acquires more and more power over them, and above all things, therefore, is it essential that the habits of work should be good. The plans adopted in early life gradually shape themselves into some system, good or bad, in after life, and success in no small degree depends on the character of this system.

To the mature Physician or Surgeon it sounds positively ridiculous to counsel the student of Medicine to industry; three or four years may seem a long time, but, compared with what has to be acquired, they are all too inadequate. To practise Medicine aright one must continue a life-long student; it is only the basis of the superstructure which can be acquired during the few years spent in the Medical School. From the day of entry, therefore, the student should set vigorously and earnestly to work—not too hard at first, for this not unfrequently ends in disgust, but steadily, until the irksomeness of the task wears off, and use becomes a second nature.

In the established order of things, lectures play a most important part; it is not our intention, meantime, to argue whether this should be so or not, but, accepting matters as they stand, it is advisable for the student to utilize these to the utmost. Much harm has been done by inveighing against lectures and lecturers, but it should be remembered that lecturers are, as a rule, skilled teachers; that their lectures consist of the essence of the knowledge they have spent years in acquiring; that they can explain, illustrate, and impress their meaning; they know the points of special importance, and can insist upon them; in short, they are living powers—books but a dead abstraction. There is no book so good as a good lecture. To insure the full benefit of these lectures, the teacher should address no dull inert mass; the pupil ought to be ready and apt to receive and strive to master his teacher's meaning. One thing too much in vogue, and most prejudicial to the student, is missing lectures; we do not speak of the evil effects morally merely, but also of the actual loss the student sustains; the key-note to the next week's work may have thus been lost. By close attention and assiduous attendance, the student, if he has a good teacher, may acquire an enormous amount of information; but as yet he holds it loosely—he has not made it part and parcel of himself. To ensure this end, home work should go hand in hand with school work; the work of the evening should supplement and complete that of the day. In each subject the student should have a well-selected text-book; as a rule, it is better to read one than several; and in this in the evening he should recapitulate what he has heard during the day. The text-book should neither take the place of the teacher nor the teacher that of the text-book, but the one should be the correlate of the other. Neither would we advise the student to read on in advance of the lecturer. Such a plan is dangerous, for it is always more difficult to unlearn than to learn; the aspects of science change fast, and no book can long be up to the latest date; it is better, therefore, to allow the teacher to lay down the accepted belief; the student may compare it with that expressed in his book, and, if the two are found at variance, he may seek an explanation which a good teacher will be only too happy to afford. The student should not seek to confuse himself with contradictory opinions, and consequently a good teacher is necessarily dogmatic; the knowledge that M. So-and-so says this, and Herr So-and-so says that, is scarcely worthy of the name of knowledge—at best, it utterly barren; facts are wanted, not opinions, for, however interesting these last may be historically, they carry no real information.

Some men adopt the laudable practice of note-taking; but this also may prove a delusion and a snare, for somehow the information often remains in the note-book—it fails to reach the note-taker's head. To be useful, these notes should be studied, to recall the teacher's words, and the better to compare his teaching with the text-book. They should therefore be taken during lecture, but not in such a way as to divert the hearer's attention from what is being said, and, above all, not from that which is to be seen. Some men further adopt the plan of rewriting and extending these notes each evening; the benefit to be acquired from this will entirely depend on how it is done. If the attention is directed to mechanical accuracy and neat writing, it is useless; but, on the other hand, it must be accompanied with advantage if employed for the purpose of impressing the general spirit of the matter more forcibly on the memory. Writing has, further, the advantage of encouraging accuracy and exactness. Bacon's words should be remembered —"Reading makes a full man, conversation a ready man, writing an exact man." Besides, as examinations are to a considerable extent conducted in writing, it is important that the student should be accustomed to express himself on paper with ease and readiness. A pen and a blank sheet of paper are terrible resolvers of ideas to the novice; it is only use and wont which renders them aids rather than obstacles to expression. And accuracy is of special value at such times. Nothing irritates an examiner so much as a loose way of answering questions, or of fencing with them, instead of answering directly. Many a prize has been lost, and many a man has failed to pass, from disregarding this principle.

There is, unfortunately, among students a tendency to procrastinate, which should strenuously be avoided. At no time can the knowledge of a subject be so easily acquired as in that set apart for the purpose. Thus, a student in his first year may think that Chemistry, which ought to be one of his principal studies, may easily be mastered at a subsequent period; the examination seems far off, and he may be enamoured of Anatomy. But time flies apace, and as in our system certain years are devoted to certain subjects, these must be neglected in their turn to enable a man to make up the leeway he has lost the year before. This warning applies equally to industrious students and to the idle; for it often happens that men take a fancy to one particular subject, and work at it with the utmost relish, to the neglect of other studies which should be going on simultaneously. The old motto is a good

one—A place for everything and everything in its place. We are earnest in this, for we are convinced from long experience that most meritorious students sometimes fail for the very reason given above; they have no time to make up their lee-way. But the plan we insist upon has the further actual advantage of saving time. When a man has listened to a lecture, or has seen a series of well-contrived experiments, in the morning, he has not had time to forget all about them by evening. When he sets to work, therefore, to refresh his memory with his books, the whole thing comes freshly up before him, and constitutes a more vivid impression on his memory than the two taken separately and at longer intervals possibly can do. But if a man returns to a study months after it ought to have been actively taken up, he finds he has to begin from the very beginning. All the time previously devoted to lectures or experiments has been wasted.

So, again, when dealing with the more practical subjects, such as Medicine and Surgery, ward-work and home-work should go hand in hand. We counsel every man to see everything he can see with his own eyes; to do everything he can do with his own fingers. But it is hardly possible for him to encounter every form of disease or injury during his pupilage. Something must be left to reading, especially that which regards the principles of his art. But whenever a form of disease is being studied, a case in a ward and a good description in a text-book will mutually complement each other, greatly to the student's present benefit and lasting good.

But of what might be called the mechanical portion of the student's work we have as yet said nothing, and we might pertinently enough be asked what we consider the best time of the day for reading—morning or evening? To this we would reply that in such a matter every man must be a law to himself. Some prefer the morning, most the evening, for study. To the latter, indeed, many men are practically restricted; for in lodgings it is hardly possible to pursue morning studies, except in the midst of discomforts of every kind, especially where the space available to the student is limited. But if the evening be chosen for study, it is better for men who are young and growing not to prolong their work into the small hours of the morning, for a fair amount of sleep is not only desirable, but necessary. Some men want more than others; but it not unfrequently happens that these can also do more work in their day than can the others in the longer time.

Suppose, then, that the evening is given up to home-work, just as the day is to Hospital duty, how best to apportion one's time? In most of our Hospitals the hour of visit is in the afternoon, the morning being given up to class-work, dissections, and what not. Between the two there is, ordinarily, a space devoted to refreshment, which some men occupy in dining. We cannot commend the practice, for after a heavy meal the brain acts more sluggishly, especially if more than a very small quantity of beer has been consumed; and whilst at his work, the student should be as sharp as a needle. It is, therefore, better to take only some light refreshment at mid-day, and to partake of the heavy meal of the day only when Hospital work has ended. A story goes of a distinguished judge who used invariably to have beer at lunch time, his brethren on the bench indulging in wine or coffee. They used to tease him about the practice until, one day, he turned the tables on them by telling them he drank the beer to bring down his intellect to the level of the other judges. But Medical students, as a rule, cannot afford thus to handicap themselves, and they will do well to bear the judge's remark in mind, for the sake of avoiding what notoriously blunts the intellectual faculties. Those who do not dine at home will best do so on their way from the Hospital, after which a chat with a friend, or a look at a newspaper, a cup of tea or coffee to brighten the intellect, and, like a giant refreshed, the student is ready for work again.

We have already spoken of the kind of work which should occupy the evening: it should supplement and complete that of the day; but we have not spoken of the fashion of work. If you inquire of any one notorious for disposing of a vast amount of work in a short time what the secret of it is, in all probability he will tell you concentration. It is the power, emphatically, of doing one thing at a time, and doing it with all your might. Some students will tell you of the number of pages they read daily; measure, rather, the work done by the knowledge acquired. Separate yourself as far as possible from your surroundings, and concentrate your energies on your work; you will thereby be spared the irksome task of going over the same thing time after time until it is fixed in your memory—for a single attentive reading is better than half a dozen careless ones.

But by-and-bye the time for Examinations comes; but these the student who has been diligent and attentive has no cause to dread. Nevertheless, one who is too vain-glorious, and not sufficiently careful, is apt to come off badly; it is the part of a wise man to prepare for all contingencies. It is usual, therefore, for one who is preparing for an Examination to devote some extra time and attention to the subjects on which he has to undergo the inquisition. We have not unfrequently seen men overdo themselves during this period—and the same applies to Prize Examinations—so that they break down just before the critical time. The tactics which have so often succeeded on the turf are the best here also—a good steady pace all through the race, and a rush at the end. But force must not be miscalculated. If the pace has been too severe, and the rush begins too early, a break-down may result just before the winning-post; and so of the student: he should work well and steadily, but always, so to speak, within himself, so that at the time when he has everything at his finger ends, he may be able to devote some extra exertion to revisal. It is astonishing how much can be done this way in an exceedingly short space of time.

The course we advocate, therefore, is that of steady industry—no fits and starts. Above all, let men doubt that genius whereby some are supposed intuitively to pick up knowledge; rely upon it that the real genius in Medicine is hard work. And this steady industry is valuable, not alone in the results it brings about, but, above all, in the habits it induces. It marks a man with a life-long impression. Habits of accuracy are as easily acquired as are those of inaccuracy. In time it is easier to be industrious than idle; and, as the child is father to the man, so is the industrious student the sure precursor of the successful Practitioner.

THE MEDICAL STUDENT, PAST AND PRESENT.

Lant-street, in the Borough, made famous by Dickens, by his description of the evening party of Mr. Bob Sawyer, still exists; but the race of students whose exploits and revelries are depicted with so much graphic truthfulness in "Pickwick" are no more. It is difficult to conceive at the present day that the Medical student of less than forty years ago was an uncouth, unruly, riotous, and, indeed, often ignorant, young man. But such was the fact. There were many causes in operation to account for this. First and foremost, the Medical student of that day was worse educated than the *alumni* of either of the other learned professions, and was required to pass no preliminary examination. He was placed at the age of 15 or 16 an "apprentice," and spent five or six years of the best time of his life in the drudgery of dispensing medicine. As a rule, he was taught nothing else until he was 21. Then, escaping from what was scarcely better than an imprisonment of long duration, it is not to be wondered at that he ran riot for a time Under no surveillance, with no inducement to spend his evenings quietly or reasonably, he was given to sky-larking and rollicking. The name of "Medical student" at once suggested every kind of intemperate amusement, and he was regarded as amongst the most unruly of midnight revellers. London by gaslight

offered inducements to the idle and dissipated, and the laxity of the Schools fostered irregularity and carelessness. There was, too, a certain premium, as it were, on irregular study, in the fact that several of the Hospitals had no school of teaching attached to them, and the student had to hurry from the private School of Anatomy, etc., sometimes at a distance from the Hospital, to "walk," or rather "run" the wards. Here he had little to interest or instruct him. There were no Clinical instructors; the visit of the Physician or Surgeon was hurried, irregular, and careless, and, it was not to be wondered at that the conduct of the class was not more commendable or edifying. No inducement, in fact, was held out to the pupil of former times to conduct himself either as a gentleman or a student. In spite of this "cold shade," however, there were very many who, in every way, did their duty to themselves and to society, and who attained to great and deserved eminence.

Now the system is altogether changed. The preliminary education of the Medical student of the present day is equal, if not superior, to that of the student of either of the other professions. The objectionable apprentice system has been either done away with or greatly modified, and the five years of "penal servitude" has been converted into the same period of real training for the performance of the duties of a Medical Practitioner.

The system of tuition has been altogether enlarged and improved; the "lectures" are less tedious and more instructive; and the wards of the Hospitals are in most cases what they should be—the arena of Clinical teaching and study. In addition to these advantages, the Medical student of the present day has the opportunity of joining a Medical Society attached to his Hospital or School, and of spending his evenings in a rational and advantageous manner. Moreover, he has not to run from School to Hospital, and from Hospital to School, as in former times. Now there are no "private" Schools, and every Hospital has in itself the means of teaching every branch of of science required by the candidates for a diploma.

We were always of opinion that the bad reputation and conduct of the Medical students of former times were due mainly to the faults of a system, and not to anything radically wrong in the students themselves. That this opinion was correct is abundantly proved; for we may now class our cadets amongst the highest, whether in information, gentlemanly bearing, or freedom from low and vicious habits. Now and then some idle and noisy roysterer will falsely assume before a police magistrate the more honourable designation of "Medical student," because, forsooth, the offender knows that it is more respectable than his own calling. But, on inquiry, the imposture is found out. The trick is stale, but amusing; just as is the assumption of an ignorant quack when calling himself Brodie or Liston.

The student of the present day has more work to do than his predecessor. He has a large field of knowledge to cultivate; he has to take a more profound view of science and of practice. But he has advantages his predecessor did not possess. He is better educated; he has greater facilities for obtaining knowledge; he has the advantage of five years' preliminary study; and with these, it would be hard indeed if he had not thrown aside the shortcomings and the "bad habits" of his class in days gone by.

CHANGES IN THE METROPOLITAN MEDICAL SCHOOLS.

It may be convenient for our readers to give them a condensed account of the changes in the staffs of our various metropolitan Medical Schools, so that they may see at a glance, without reference to our diary or advertising columns, their present *personnel*.

At St. Bartholomew's, Dr. Farre has resigned the post of Physician to the Hospital, and Dr. Odling's name no longer appears as Lecturer on Chemistry, his place being supplied by Mr. Matthiessen, whilst new departments of Morbid Anatomy, Diseases of the Skin, Eye, and Ear have been handed over to Dr. Gee, Dr. Duckworth, Mr. Henry Power, and Mr. Thomas Smith respectively.

At Charing-cross Hospital the most important changes are the appointment of Mr. E. Bellamy as Assistant-Surgeon, Dr. J. Watt Black as Obstetric Physician, and Dr. H. Beigel as Physician for Skin Diseases, whilst Dr. Dowson, without any post in the Hospital, has been made Lecturer on Botany.

The only change of importance at St. George's is the substitution of Mr. Brudenell Carter for Mr. Henry Power, transferred to St. Bartholomew's, in the post of Ophthalmic Surgeon, and Dr. Cavafy for Dr. Bright as Lecturer on Comparative Anatomy.

At Guy's, Dr. Taylor has ceased to lecture on Chemistry, and his place is taken by Dr. Debus. Mr. Hilton has also been promoted from Ordinary to Consulting-Surgeon to the Hospital, the consequent vacancy being occupied by Mr. Howse, who is now the Junior Assistant-Surgeon.

At King's College, Sir W. Fergusson no longer lectures on Systematic Surgery—a chair which is occupied by Mr. John Wood—but continues his connexion with the Hospital in a special chair of Clinical Surgery. The present Demonstrators of Anatomy are Messrs. Curnow and Perrin.

At the London Hospital new additional Assistant-Surgeons have been made — Messrs. McCarthy and Reeves. Dr. Hughlings-Jackson has resigned the chair of Physiology, and his place is taken by Dr. Woodman.

At St. Mary's, the only change worth noting is the substitution of Dr. Cheadle for Dr. Sieveking in the chair of Materia Medica.

At Middlesex, the vacancy among the Assistant-Surgeons created by the death of Mr. Moore has been filled by Mr. Henry Arnott. Dr. Sanderson has given up the chair of Physiology, in which Dr. Ferrier succeeds him; whilst Dr. Brunton has been appointed to the chair of Materia Medica.

At St. Thomas's Hospital, the principal alterations have been occasioned by the resignation of Drs. Risden Bennett and Goolden, the vacant Assistant-Physiciancies not being yet filled up, and by the appointment of Dr. Rhys Williams as Lecturer on Mental Diseases. Mr. Simon no longer lectures on Pathology; his place is taken by Dr. Bristowe. Mr. A. Haviland will give a Course of Lectures on the Geographical Distribution of Disease, and Mr. C. Stewart a course of Demonstrations illustrative of the Preparations in the Museum.

At University College, Dr. Burdon Sanderson has been made Professor of Practical Physiology, and Dr. Roberts Assistant-Physician, whilst Dr. Maudsley takes the chair of Medical Jurisprudence.

Finally, at Westminster, Dr. Anstie has been associated with Dr. Basham in the chair of Physic, and Mr. Pearse with Mr. Mason in that of Anatomy.

Pharmaceutical Society of Great Britain, Bloomsbury-square, London.—School of Pharmacy.—Session 1870-71.—The Session will commence on Monday, October 3, and extend to the end of July. Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood on Monday, Tuesday, and Wednesday mornings at nine o'clock, commencing on Monday, October 10. Also Lectures on Botany and Materia Medica by Professor Bentley. The first and second parts of this course, extending over the winter months, will be delivered at 17, Bloomsbury-square, on Friday and Saturday mornings, at nine o'clock, commencing Friday, October 7. The third part of the course, on Systematic Botany, will be delivered at the Royal Botanic Gardens, Regent's-park. Fees: For Registered Apprentices and Associates of the Society, for either of the above courses, One Guinea; for either part separately, Half-a-Guinea. For those not connected with the Society, Two Guineas for either of the above courses; One Guinea for either part separately. Laboratory: The suit of Laboratories for Practical Instruction in General and Pharmaceutical Chemistry will be opened on Friday, October 1, under the direction of Professor Attfield. Fee for the entire Session of ten months, Twenty-five Guineas. The Laboratories are open from half-past nine a.m. till five p.m. Students can enter at any period during the Session. Two Scholarships (the Jacob Bell Memorial Scholarships), of £30 a year each, are open to competition annually in July. The Board of Examiners meet monthly to grant certificates of competency. For further information, apply to Mr. Bremridge, Secretary and Registrar.

TABLES

GIVING THE NAMES OF LECTURERS, HOURS OF LECTURE, DAYS OF ATTENDANCE, AND FEES IN THE METROPOLITAN MEDICAL SCHOOLS AND HOSPITALS.

LECTURES.	ST. BARTHOLOMEW'S. Lecturers.	Days and Hours.	Fees. 1 Course £ s.	2 Courses £ s.	Perpetual. £ s.	CHARING CROSS. Lecturers.	Days and Hours.	Fees. 1 Course £ s.	2 Courses £ s.	Perpetual. £ s.	ST. GEORGE'S. Lecturers.	Days and Hours.	Fees. 1 Course £ s.	2 Courses £ s.	Perpetual. £ s.
WINTER SESSION.															
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Black Dr. Andrew	M Tu and Th 3 30	5 5	..	7 7	Dr. H. Salter	M W F 2.30	4 4	6 6	..	Dr. Barclay	M W F 9	6 6	..	7 7
SURGERY	Mr. H. Coote Mr. Savory	M 2.30 F 3.30 S 9	5 5	..	7 7	Mr. Canton	Tu Th S 9	3 3	5 5	..	Mr. Holmes	Tu Th S 9	6 6	..	7 7
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Holden Mr. Callender	Tu W Th F 2.30	7 7	..	10 10	Mr. Barwell	M W F 9 Th 3.30	4 4	6 6	..	Mr. Rouse	M W F 3	6 6	..	7 7
ANATOMICAL DEMONSTRATIONS.	Mr. Langton Mr. Marsh	Daily 10.15 till 2	3 3	5 5	..	Mr. Bellamy	Daily, 10 to 1	3 3	5 5	..	Mr. Baber Mr. Goldsmith Mr. Thrupp	..	3 3	..	..
GENERAL ANATOMY AND PHYSIOLOGY	Mr. W. M. Baker	M Tu Th F 10.15	7 7	..	10 10	Dr. Silver	M Tu W F 3.30	4 4	6 6	..	Dr. W. Ogle Mr. Sims, *dem*	Tu Th 3 S 11	6 6	..	7 7
CHEMISTRY	Mr. Matthiessen	M W F 9.15	5 5	..	7 7	Mr. Heaton	M Th F 11	5 5	..	..	Dr. Noad	Tu Th S 11.30	6 6	..	8 8
HOSPITAL PRACTICE—															
Physicians	Dr. Black Dr. Harris Dr. Andrew Dr. Southey	M Tu Th 1 TuThS1.30 M Tu Th F S1.30 M W Tu S 1.30	12 12 6 mths	18 18 2 yrs.	26 5	Dr. H Salter Dr. Headland Dr. Beigel (Skio Diseases)	M W F 1 Tu Th S 1 Tu Th	10 10 6 mths	15 15 12 mths	21 0	Dr. Fuller Dr. Barclay Dr. J. Ogle Dr. Wadham	Tu S 1 M F 1 M F 1 Tu S 1	3 8 6 mths	16 16 3 years	25 4
Assistant-Physicians ..	Dr. Church Dr. Gee Dr. Duckworth Dr. Hensley	Tu F 11 W S 11 M Th 11	..	..	..	Dr. Pollock Dr. Silver Dr. Green	M Th Tu F W S	..	..	..	Dr. Dickinson Dr. W. Ogle	Tu S 12 M F 12	..	..	..
Surgeons	Mr. Paget Mr. Coote Mr. Holden Mr. Savory	M Tu Th F S 1.30 MWFS1.30 Tu F S 1.30 M Tu Wth F S 1.30	15 15 6 mths	21 0 1 year	26 5	Mr. Hancock Mr. Canton Mr. Hird Mr. Barwell	Tu Th S 1 M W F 1 Tu Th S M W F	10 10 6 mths	15 15 12 mths	21 0	Mr. P. Hewett Mr. Pollock Mr. H. Lee Mr. Holmes Mr. Brodhurst (Orthop.)	M F 1 Tu S 1 Tu S 1 M F 1	15 15 6 mths	21 0 3 years	42 0
Assistant-Surgeons	Mr. Callender Mr. T. Smith Mr. Willett Mr. Langton	W S 12.30 M Th 12.30 F 12.30 Tu 12.30	..	..	..	Mr. Bellamy	..	..	..	..	Mr. Rouse Mr. Pick	M F 12 Tu S 12	..	..	..
Physician-Accoucheur ..	Dr. Greenhalgh	Th 1 30 S 9	..	..	..	Dr. J. W. Black	M W F	..	..	..	Dr. J. Clarke	Tu S 1 Th 12	..	..	..
CLINICAL MEDICINE ..	Dr. Black Dr. Harris Dr. Andrew Dr. Southey	.. Weekly	..	..	..	Dr. Salter Dr. Headland Dr. A. J. Pollock Dr. Silver Dr. Green	.. Th 4	..	..	..	Dr. Wadham Dr. J. Ogle Dr. Barclay	M 2 M 2 M 2 sum.	..	..	..
CLINICAL SURGERY ..	Mr. Skey Mr. Paget Mr. Coote Mr. Holden Mr. Savory	.. Weekly	..	..	..	Mr. Hancock Mr. Canton	..	..	..	..	Mr. Hewett Mr. Pollock Mr. Holmes	Tu 2 Tu 2 Tu 2 sum.	..	..	..
DISEASES OF WOMEN ..	Dr. Greenhalgh	..	..	..	..	..	..	..	..	..	Dr. Clarke	F 2	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. Gee The Surgical Registrars	Daily 1 and 2	..	..	..	Dr. T. H. Green	W F 12 sum	2 2	..	..	Dr. J Ogle	Th 3 win. Tu Th 3 sum.	5 5	..	..
OPHTHALMIC SURGERY ..	Mr Power and Mr. Vernon	..	..	..	..	..	..	..	..	..	Mr. H. Power	W 10 win.	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Farre	Tu Th S 10 W 11.30	5 5	..	6 6	Dr. Headland	Tu Th S 12	3 3	..	..	Dr. Dickinson	M W F 3	4 4	..	5 5
BOTANY	Rev. G. Henslow	M W F 10	3 3	..	4 4	Dr. Dowson	Tu Th S 11	2 2	..	..	Mr. Child	M W F 12	3 3	..	4 4
FORENSIC MEDICINE ..	Dr R. Southey	M Th S 9	3 3	..	4 4	Dr. A. Pollock	M W F 4	2 2	..	..	Dr. Wadham	Tu Th S 9	4 4	..	5 5
MIDWIFERY	Dr. Greenhalgh	Tu W F S 8.30 a.m.	5 5	..	6 6	Dr. J. W. Black	M W F 3	3 3	..	..	Dr. J. Clarke	M W F 9	5 5	..	6
PRACTICAL CHEMISTRY ..	Mr. Matthiessen	M Tu F 11 to 1.30	2 2	..	..	Mr. Heaton Mr. Francis	M F 10—1	2 2	..	..	Dr. Noad	M W Th F 10	4 4	..	..
MICROSCOPIC ANATOMY ..	Mr. Vernon Dr Thorne	M Th 2—4	1 1	..	..	Dr. Silver	..	..	..	..	..	..	..	..	..
OPHTHALMIC SURGERY ..	Mr. Power	Tu F 1.15	2 2	..	3 3	..	..	..	..	..	Mr. B. Carter	W 10	..	..	..
OPHTHALMIC DEMONS. ..	Mr. Vernon	W win. 2	..	..	..	..	..	..	..	..	..	..	..	..	..
COMPARATIVE ANATOMY..	Dr. Church	M Th 11 summer	2 2	..	3 3	Mr. J. C. Galton	Tu Th 4	3 3	..	4 4	Dr. Cavaty	M F 4.30	..	..	..
ORTHOPÆDIC SURGERY ..	Mr. Willett	..	..	..	..	..	..	..	..	..	Mr. Brodhurst	Tu 10	..	..	..
DRESSERSHIPS	..	..	12 12 3 mths	18 18 6 mths	26 5 1 year	..	..	..	..	..	..	..	..	..	..
DENTAL SURGERY	Mr Coleman	S 10, Jan., Feb., Mar.	2 2	..	3 3	Mr. Parkinson	..	..	..	..	Mr. Vasey	Tu 10	1 1	..	..
PSYCHOLOGICAL MEDICINE	Dr. Thorne	..	..	..	..	Dr. Hunt	M 12	..	..	..	Dr. Blandford	W 3	..	..	..
OPERATIVE SURGERY ..	Mr. Langton Mr. Marsh	M Tu W Th F 10—3	4 4	..	..	..	..	..	..	..	Mr. Rouse	..	4 4	..	..
SKIN DISEASES	Dr. Duckworth	..	..	..	..	Dr. Beigel	Tu 2.30	..	..	..	Dr. Barclay	Th 2.15	..	..	..
DISEASES OF THE EAR ..	Mr. T. Smith	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Entrance to Lectures and Hosp.											Compounding Fee ..		..	..	105 0
Practice for Examinations	..	..	..	..	99 15	..	..	..	..	82 19	..	..	..	..	94 10
To the Hospital Practice only	..	..	..	..	..	..	..	..	..	31 10	..	..	..	..	37 16
To the Lectures only	..	..	..	..	..	..	..	..	..	51 9	..	..	..	..	..

LECTURES.	GUY'S. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	KING'S COLLEGE AND HOSPITAL. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	LONDON. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Owen Rees Dr. Wilks	M W F 3	5 5	..	..	Dr G.Johnson	Tu 4 Th F 5	7 7	..	7 7	Dr. H. Davies Dr. Ramskill	M W Th 9.15 till Xmas, after Th 9.15 M F 4	5 5	.	6 6
SURGERY	Mr. Birkett Mr. C. Forster	Tu Th 3.30 F 10.30	5 5	..	..	Mr. Wood	M Tu W 5	6 6	..	7 7	Mr. Hutchinson	Tu F S 9	5 5	..	6 6
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Durham	Tu W Th F 9	5 5	..	..	Mr. Partridge	Daily except M 9	7 7	..	10 10	Mr. Rivington	M Tu Th F 3	5 5	..	8 8
ANATOMICAL DEMONSTRATIONS	Mr. Howse Mr. Davies-Colley	Daily 9 to 4	5 5	..	..	Mr. Curnow Mr. Perrin	..	..	..	..	Mr. J. Adams Mr. W. Tay Mr. M'Carthy	Daily 10 to 3 exc. W. & S after.	5 5	..	8 8
GENERAL ANATOMY AND PHYSIOLOGY	Dr. Pavy	M W F 4.15	5 5	..	..	Dr. Rutherford	M W Th F 4	7 7	..	10 10	Dr. Fenwick Dr. Woodman	Tu W Th 4	4 4	..	6 6
CHEMISTRY	Dr. Debus Dr. Stevenson	Tu Th S 11	5 5	..	..	Dr. Miller Mr Higgins *dem*	M W Th S 10.15	8 8	..	10 10	Dr. Letheby Dr. C. M. Tidy	M W F 10.30	7 7	..	7 7
HOSPITAL PRACTICE—						*In-patients*—									
Physicians	Dr. Owen Rees Dr. Habershon Dr. Wilks Dr. B. Hicks, *obs.*	Tu Th S 1.30 Tu Th S 1.30 M Th 1.30 W S 1.30	10 10 3 mths	15 15 6 mths	26 5	Dr. Johnson Dr. Beale Dr. Garrod *Out-patients*— Dr. Guy Dr. Priestley, *obs.*	M W F 1.30 Tu Th S 2 Tu Th S 1.30 Tu Th S 1.30	10 10 6 mths	15 15 18 mths	21 0	Dr. Davies Dr. A. Clark Dr. Ramskill Dr. Down Dr. Head, *obs.*	Tu F S.30 M Th 1.30 W S 1.30 Tu F 1.30 Tu F 1.30	6 6 6 mths	12 12 Period reqd. by Apoth. H.	21 0
Assistant-Physicians ..	Dr. Pavy Dr. Moxon Dr. C. H. Fagge Dr. J. J. Phillips, *obs.*	F 12 M 12 W 12 M F 1.30 Th S 12	..	..	..	Dr. A Duffin Dr. Yeo Dr. Kelly Dr. Playfair *obs.*	M W F 1 Tu Th S 1 Tu Th S 1 Tu Th S 12.30	..	..	..	Dr. H. Jackson Dr. Mackenzie Dr. Sutton Dr. Fenwick Dr. Woodman Dr. Palfrey, *obs*	M Th 1.30 W S 1.30 M Th 1.30 Tu F 1.30 Tu F W S 1.30			
Surgeons	Mr. Cock Mr. Birkett Mr. Poland Mr. C. Forster Mr Poland *oph.* Mr. Hinton *aur*	M Th S 1.30 M Th 1.30 W S 1.30 M Th 1.30 Tu 12	10 10 3 mths	15 15 6 mths	26 5	Sir W. Fergusson Mr. Wood Mr. Wells, *oph.*	Tu Th S 1.30 M W F 1.30 Tu Th S 1	15 15 6 mths	21 0 21 mths	26 5	Mr. Hutchinson Mr. Maunder Mr. Couper Mr. Rivington	M Th 1.30 Tu F 1.30 W S 1.30 M Th 1.30 S 9.30 *aur.*	8 8 6 mths	18 18 18 mths	26 5 3 years
Assistant-Surgeons	Mr. Bryant Mr. A. Durham Mr. Howse Mr. Bader *oph.* Eye Wards	M Th 12 W 12 S 12 Tu F 12 W S 1.30	..	..	..	Mr. H. Smith Mr. R. Bell	Tu Th S 1 M W F 1	..	..	..	Mr. J. Adams Mr. W. Tay Mr. M'Carthy Mr Reeves	Tu F 1.3 W S 9 *oph.* M Th 1.30 W S 9 *oph.* M Th 1.30 Tu S 1.30 S 9.30 *aur.*	..	..	..
CLINICAL MEDICINE ..	*Winter*— Dr. O. Rees Dr. Habershon Dr. Wilks *Summer*— Dr. Pavy Dr. Moxon Dr. Fagge	S 1.30 W 1.30	..	..	..	Dr. Johnson Dr. Beale Dr. Garrod Dr. Priestley *obs.*	Every alt. M 3 p.m. Every alt. Tu 3 Every alt. F 3 p.m. Every alt. Th 3	..	..	..	Dr. A. Clark Dr. Ramskill Dr. Davies Dr. Down Dr. Sutton Dr. Jackson Dr. Mackenzie	M 2 win. W 3.30 win. M 9 Tu 1.30 Tu 2 M 2 sum. W 2 sum.	..	..	..
CLINICAL SURGERY ..	*Winter*— Mr. Cock Mr. Birkett Mr. Poland Mr. Forster *Summer*— Mr. Bryant Mr. Durham Mr. Howse	F 1.30 F 1.30	..	..	..	Sir W. Fergusson Mr. Wood Mr. Wells, *oph.*	Every alt. Th 3 p.m. Every alt. F 3 p.m. Every alt. M 3	..	..	..	By the Surgeons	..	..	..	..
DISEASES OF WOMEN ..	Dr. Hicks Dr. Philips	W 1.30	..	..	..	..	..	..	..	..	..	..	..	..	..
PATHOLOGY	Dr. Moxon	2.30 S 9	..	..	..	Dr. Beale	Tu Th 4 s.	2 2	..	..	Dr. Sutton	Th 12.30	3 3	..	6 6
SUMMER SESSION.															
MATERIA MEDICA	Dr. Habershon	Tu Th F 3	4 4	..	..	Dr. A. B. Garrod	Tu W Th F S a.m.	4 4	..	5 5	Dr. J. L. Down	Tu Th F 4	3 3	..	4 4
BOTANY	Mr. Johnson	Tu Th S 11.30	4 4	.. ..	..	Mr. Bentley	M Tu Th F 12.15	4 4	..	5 5	Mr. Baker	M W F 11	3 3	..	4 4
FORENSIC MEDICINE ..	Dr. A. Taylor	Tu Th S 10	4 4	..	..	Dr. Guy	M Tu W F 12.15	4 4	..	5 5	Mr. Rodgers Dr. P. James	Daily exc. Sat 10	3 3	..	4 4
MIDWIFERY	Dr. B. Hicks	Tu W Th F 8.45 a.m.	5 5	..	..	Dr. W. O. Priestley	Tu W Th F 9	6 6	..	7 7	Dr. E. Head	M W Th F 3	4 4	..	6 6
PRACTICAL CHEMISTRY ..	Dr. Debus	M W F 10 to 1	4 4	..	..	Mr C. L. Bloxam	M W F 10.15	5 5	..	8 8	Dr. Letheby	M Th S 9	2 2	..	..
COMPARATIVE ANATOMY..	Dr. Pye-Smith	M F 12.45	4 4	..	..	Mr. T. R. Jones	M W F 4	3 3	..	4 4	Dr. Woodman	M 4	3 3	..	4 4
PRACTICAL HISTOLOGY ..	..	..	..	..	..	..	..	..	..	..	Dr. Woodman Dr. Fenwick	..	3 3	..	4 4
NATURAL PHILOSOPHY ..	Dr. Stevenson Mr. D Colley	W 12 win.	4 4	..	..	..	..	..	..	..	..	..	..	.	..
OPERATIVE SURGERY ..	Mr. Bryant	W 3	5 5	..	..	..	..	..	..	..	Mr. Maunder	..	..	..	..
DENTAL SURGERY	Mr. Salter	..	..	..	..	Mr. Cartwright	Tu F 9, alt. Th 10.30 cl.	6 6	..	8 8	Mr. Barrett	..	2 2	..	..
HYGIENE	Dr. H. Fagge	..	..	..	..	Dr. Guy	..	..	..	..		..	..	..	..
AURAL SURGERY	Mr. Hinton	..	..	..	..	..	..	..	..	..	Dr. Tidy and Mr. Rivington	..	..	..	..
CUTANEOUS DISEASES ..	Dr. H. Fagge	Tu 12 win.	..	..	..	..	..	..	..	..	..	..	..	..	..
OPHTHALMIC SURGERY ..	Mr. Poland Mr. Bader	M S.45 a.m.	..	..	..	Mr. J. S. Wells	M Tu W Th 9	3 3	..	..	Mr. J. Hutchinson	Tu F S in June	2 2	..	3 3
DISEASES OF THE THROAT	..	..	..	..	..	..	..	..	..	..	Dr. Mackenzie	..	2 2	..	3 3
USE OF MICROSCOPE ..	Dr. Pye-Smith Mr. Howse	W F 1 win. Tu F 10 sum	4 4	..	..	..	..	..	..	..	Fees for the Lectures and Hospital Practice, for the Licences of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons, £88 4s.				
TUTOR'S CLASS	..	..	..	..	..	Dr. J. B. Yeo	Day. ex. S 9 Win. M W F 5	3 3 3 3	..	..	To the Lectures alone, £50 8s.				

Fee for Hospital Practice and Lectures, 1st year, £40; 2nd year, £40; and £10 for each succeeding year. A Perpetual Ticket, £100.

Fee Lect. & Hosp. Pract. £105, in 1 sum £100

Perpetual Fee to Lect. & Hos. prac. £98 14s.

LECTURES.	ST. MARY'S.					MIDDLESEX.					ST. THOMAS'S.				
	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
WINTER SESSION.															
MEDICINE	Dr. Chambers Dr. Handfield Jones	M W Th 4	4 4	..	6 6	Dr. Murchison	Tu Th S 9	6 6	..	8 8	Dr. Barker Dr. Peacock	M Th 2 Tu 4	..	..	..
SURGERY	Mr. Spencer Smith & Mr. J. R. Lane	Tu F 4 W 3	4 4	..	6 6	Mr. De Morgan	M W F 9	6 6	..	8 8	Mr. Solly Mr. Le Gros Clark	Tu F 3 W 12.45	..	..	..
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Gascoyen Mr. Norton	M Tu Th F 2.45	6 6	..	8 8	Dr. R. Liveing	M W Th F 10	8 8 10 10	.. ..	12 12 14 14	Mr. S. Jones	M F S 1 Th 3	..	..	..
ANATOMICAL DEMONSTRATIONS	Mr. Norton Mr. E. Owen Mr. J. Lidderdale, *Assist. Dem*	Daily 9 to 5	3 3	..	..	Dr. R. Liveing	Daily 8 to 5	6 6	..	8 8	Mr. Rainey Mr. Croft Mr. W. Wagstaffe	Daily 9 to 3	..	..	..
PHYSIOLOGY	Dr. Broadbent Dr. Lawson	M Tu Th F 9 W S 12	6 6	..	8 8	Dr. Ferrier	M W F 4	6 6	..	8 8	Dr. Bristowe Mr. Ord	M Th F 4	..	..	..
CHEMISTRY	Dr. W. J. Russell	M Tu Th F 10.15	5 5	..	7 7	Mr. T. Taylor Mr. Heisch	M W F S 11	6 6	..	8 8	Dr. Bernays	W Th F 9	..	..	..
HOSPITAL PRACTICE:															
Physicians	Dr. Sibson Dr. H. Jones Dr. Sieveking Dr. T. Smith, *obs.*	M Th 1.15 W S 1.15 Tu F 1.15 Tu S 1.30	7 7 6 mths	12 12 1 year	21 0	Dr. Goodfellow Dr. Toompson Dr. Murchison Dr. J. Hall Davis, *obs.*	M W F 1.30 Tu Th S 1 M W F 1 Tu W F S 1.30	12 12 6 mths	21 0 18 mths	25 0	Dr. Peacock Dr. Bristowe Dr. Clapton Dr. Barnes, *obs.*	From 8.30 to 9.30 a.m.	..	..	..
Assistant-Physicians	Dr. Broadbent Dr. Cheadle Dr. Lawson	M Th 1 Tu F 1 W S 1	..	..	..	Dr. Greenhow Dr. B. Sanderson Dr. Liveing	F 8.30 M 8 Tu 8.30	..	..	..	.. Dr. Gervis, *obs.*		..	..	..
Surgeons	Mr. Lane Mr. Spencer Smith Mr. H. Walton Mr. J. Lane Mr Allen, *aur.* Mr H. Walton *opht.*	Tu F 1.15 M Th 1.15 W S 1.15 Tu F 1 Tu F 2 M Th 1.30	9 9 6 mths	21 0 1 year	31 0	Mr. De Morgan Mr. Nunn Mr. Hulke Mr. Hulke, *opht*	M Th 1 Tu F 1 Th 1.30 M F 1 Tu F 8.30	15 15 12 mths	21 0 3 years	25 0	Mr. Solly Mr. Le Gros Clark Mr. Simon		..	..	..
Assistant-Surgeons	Mr. Gascoyen Mr A. T. Norton	M Th 1 W S 1	..	..	..	Mr. Lawson Mr. Arnott	Th S 1 M F 1	..	..	..	Mr. S. Jones Mr. J. Croft		..	..	..
CLINICAL MEDICINE	Dr Sibson Dr. H. Jones Dr. Sieveking	M 2 Every alt. S 2 Every alt. F 2	..	..	..	The Physicians	F 3	..	..	..	By the Physicians	..	..	..	..
CLINICAL SURGERY	Mr. Lane Mr. Spencer Smith Mr. H. Walton	Every Tu 2 Every alt. Th 2 Every alt. S 2	..	..	..	The Surgeons Mr. Hulke, *opht.*	M 3 Tu 3	..	..	..	By the Surgeons	..	..	..	..
CLINICAL MIDWIFERY	..	.	..	..	..	..	..	..	..	..	Dr. Barnes	Tu 3	..	..	..
DISEASES OF WOMEN	Dr. T. Smith	..	..	..	..	Dr. J. H. Davis	Tu 10	..	..	..	..	..	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. F. J. Payne	Summer W S 11	..	..	..	Dr. Cayley Mr. H. Arnott	Tu Th 4	3 3	..	4 4	Dr. J. Lees	Daily 9.30	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Cheadle	Tu W F S 12	4 4	..	6 6	Dr Brunton	M W F 10	4 4	..	5 5	Dr. Clapton	Tu Th F 2	..	..	..
BOTANY	Dr. Trimen	M W F 9	3 3	..	4 4	Dr. T. S. Cobbold	M W F 4	4 4	..	5 5	Dr. J. W. Hicks	M W Th 12	..	..	..
FORENSIC MEDICINE	Dr. Randall	M Tu Th 10	3 3	..	4 4	Dr. Greenhow Dr. Divers	Tu Th S 9	4 4	..	5 5	Dr. Stone and Dr. Gervis	Tu F 12 S 8	..	..	..
MIDWIFERY	Dr. Tyler Smith	Daily ex. S 9	4 4	..	6 6	Dr. J. Hall Davis	M W F 9	4 4	..	5 5	Dr. R. Barnes	M Tu Th F 3	..	..	..
PRACTICAL CHEMISTRY	Dr. Russell	M Th 11.30 S 9	3 3	..	..	Mr. Taylor Mr. Heisch	M W F 11	3 3	..	..	Dr. Bernays	F 11 Tu Th 10—12 S 10—1	..	..	..
COMPARATIVE ANATOMY	Mr. S. G. Mivart	W F 10	2 2	..	3 3	Dr. T. S. Cobbold	Tu Th 4	3 3	..	..	Dr. Ord	Tu Th 1	..	..	..
OPHTHALMIC SURGERY	Mr. H. Walton	Th 2.45	2 2	..	..	Mr. Hulke	Tu 3 wintr. & summer	..	..	..	Mr. S. Jones	M F 1	..	..	..
MENTAL DISEASES	..	..	..	..	..	..	..	..	..	..	Dr. W. R. Williams	..	..	..	..
PRACTICAL HISTOLOGY	Dr. Lawson	W S 12 winter	..	..	..	Dr. Cayley	Tu Th 3	3 3	..	..	Mr. Rainey	Tu 12.30 winter	..	..	..
AURAL SURGERY	Mr. Allen	F 3	..	..	..	..	..	..	..	..	..	..	..	..	..
OPERATIVE SURGERY	Mr. Gascoyen Mr. Norton	Winter	..	..	..	Mr. Nunn	S Winter	5 5	..	..	..	..	..	..	..
DENTAL SURGERY	Mr. Sercombe Mr. Hayward	Tu Th S 9.30	2 2	..	..	Mr. Tomes	..	5 5	..	..	Mr. Elliott	Tu F 11	..	..	..
DISEASES OF SKIN	Dr. Cheadle	Th 3	..	..	..	Dr. Liveing	..	..	..	..	..	..	..	..	..
GENERAL PATHOLOGY	..	..	..	..	..	..	..	..	..	..	Dr. Bristowe	..	..	..	..
PATHOLOGICAL CHEMISTRY	..	..	..	..	..	..	..	..	..	..	Dr. Thudichum	Th 4 win.	..	..	..
PRACTICAL PHARMACY	..	..	3 3 3 mths	6 6 6 mths	10 10 12 mths	..	..	5 5 6 mths	8 8 12 mths	..	..	..	..	..	..
Fees for the Lectures and Hospital Practice, for the Licences of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons	£89 5s.,	or in	one	sum	84 0	.	..	..	..	90 0	..	..	..	..	..
To the Lectures alone	..	..	..	..	52 10	..	..	..	..	..	..	..	..	..	..
To the Hospital Practice alone	..	..	..	.	36 15	..	..	..	..	42 0	..	..	..	..	..
Unlimited	..	£105, or in	one	sum	99 15	..	..	..	..	..	..	..	..	..	90 0

LECTURES.	UNIVERSITY COLLEGE AND HOSPITAL. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	WESTMINSTER. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s. d.	£ s.	£ s			£ s.	£ s.	£ s.
MEDICINE	Dr. J. R. Reynolds	Day. ex. M 9	6 6 0	..	9	Dr. Basham Dr. Anstie	M Th F 4	5 0	..	7 0
SURGERY	Mr. Marshall	Tu W F 4	5 5 0	..	6 6	Mr. Holthouse Mr. Mason	Tu W Th 3	5 0	..	7 0
DESCRIPTIVE ANATOMY	Mr. Ellis	Daily 12	7 7 0	..	10 10	Mr. Mason Mr. Pearse	Tu W Th F 9	5 0	..	7 0
DEMONSTRATIONS	Mr. Ellis Mr. R. Parker Mr. G. D. Thane	Daily				Mr. Pearse	Daily 10—1	2 0	..	3 0
PHYSIOLOGY AND GENERAL ANATOMY	Dr. Sharpey	Daily ex. S 10	7 7 0	..	9 9	Dr. Maclure	M F 3 W 4	5 0	..	7 0
CHEMISTRY	Dr. Williamson	Daily ex. S 11	6 6 0	..	9 9	Dr. Dupré	Tu Th 3 F 3.30	5 0	..	7 0
HOSPITAL PRACTICE—										
Physicians	Sir W. Jenner, Bart., M D. Dr. Reynolds Dr. G. Harley Dr. W. Fox Dr. S. Ringer	Daily 1 & 2	..	..	..	Dr. Basham Dr. Fincham Dr. Radcliffe Dr. F. Bird, *obs.*	M Th 1.30 W S 1 30 Tu F 1.30 Tu F 3	S 0 6 months	12 0 1 year	20 0
	Dr. Graily Hewitt, *obs.*	Three times a week								
	Dr. T. Fox, Skin Infirmary	S 9								
Assistant-Physicians	Dr. Charlton Bastian	..	For 6 months to the Physicians' and Surgeons' practice, £10 10s. To either separately, £11 10s.	For 1 year to the Physicians' and Surgeons' practice, £21 15s. To either separately, £16 10s.	..	Dr. Anstie Dr. Gibb Dr. Sturges	M Th 1 Tu F 1 W S 1	S 0 6 months	12 0 1 year	20
Surgeons	Mr. Erichsen Mr. Marshall Sir H. Thompson	Daily 1 & 2			..	Mr. Holt Mr. Holthouse Mr. Hillman	M Th 1.30 W S 1.30 Tu F 1.30			
Assistant-Surgeons	Mr. W. Jones, *oph.* Mr. Berkeley Hill Mr. C. Heath	M W F 1 ..			27 0	Mr. Mason Mr. Pearse Mr. Cowell	M Th 1 W S 1 Tu F 1	..	..	..
CLINICAL MEDICINE	Sir W. Jenner Dr. Reynolds Dr. W. Fox	M Tu Th F 1—3			..	By the Physicians	Weekly	..	..	..
	Dr. T. Fox	Once a fortnight								
CLINICAL SURGERY	Mr. Erichsen Mr. Marshall Sir H. Thompson	M W S 1—3			..	By the Surgeons	Weekly	..	..	..
	Mr. W. Jones, *oph.*	Fortnightly								
CLINICAL MIDWIFERY	Dr. G. Hewitt	Fortnightly	..	..	..	..	..	..	..	..
MORBID ANATOMY	Dr. C. Bastian	M W F 4 sum.	4 4 0	..	6 6	Dr. Lee Mr. Davy	W., Oct., Nov., Dec.	..	..	..
SUMMER SESSION.										
MATERIA MEDICA	Dr. Ringer	Daily exc. M 10	4 4 0	..	6 6	Dr. Anstie	M Th F 3	3 0	..	4 0
BOTANY	Mr. Oliver	Daily exc. S S	3 3 0	..	4 4	Mr. Bennett	M W F 9.30	3 0	..	4 0
FORENSIC MEDICINE	Dr. Maudsley	Tu W Th F 10	..	..	..	Dr. Gibb Dr. Sturges	Tu W F 3	3 0	..	4 0
MIDWIFERY	Dr. Graily Hewitt	Daily except. W and S 9	4 4 0	..	6 6	Dr. Bird	Tu Tu F 4	4 0	..	5 0
PRACTICAL CHEMISTRY	Dr. Williamson	Tu W Th F 11	4 4 0	..	..	Dr. Dupré	Tu Th 10	2 0	..	..
COMPARATIVE ANATOMY	Dr. Grant, *with Zoology*	Daily except S 3, from Oct. to June	8 S 0	..	9 9	Mr. Carter Blake	W S 11	2 0	..	..
BANDAGING, &c.	Mr. B. Hill	M Th 3 mths. W	1 11 6	..	2 2	Mr. Mason	Tu Th 9	..	..	..
OPERATIVE SURGERY	Mr. C. Heath	Daily 3 in April	4 4 0	..	..	..	..	..	..	..
DENTAL SURGERY	Mr. Ibbetson	M Th 4 in Jan	1 1 0	..	..	Mr. Walker	W 9.30	..	..	..
HYGIENE	Mr. Corfield	M F 11	2 2 6	..	3 3	..	..	..	..	..
NATURAL PHILOSOPHY	Prof. Foster	M W F 4 win.	6 6 0	..	..	Mr. Brooke	Tu 3 sum.	1 0	..	..
OPHTHALMIC SURGERY	Mr. W. Jones	Tu Th	2 2 0	..	..	..	..	..	..	..
PALÆO-ZOOLOGY	Dr. Grant	Daily except S 3 sum.	1 1 0	..	..	..	..	..	..	..
HISTOLOGY AND PRACTICAL PHYSIOLOGY	Dr. B. Sanderson	S 10–11 win.	6 6 0	..	9 9	..	..	..	..	..
MENTAL DISEASES	Dr. Sankey	Tu W Th 11	2 2 6	..	..	..	..	.	..	..
PRACTICAL PHARMACY	Mr. Martindale	..	3 3 0 3 months	..	5 5 6 months	..	..	..	..	..
Fees for the Lectures and Hospital Practice for the Licences of the Royal College of Physicians, Society of Apothecaries, and M.R.C.S.	..	..	..	..	..	..	..	..	..	70 0
For the Hospital Practice alone	..	..	..	..	27 0	..	..	..	..	26 0
Perpetual to Lectures and Hospital Practice	..	..	..	..	..	..	..	..	..	75

ADDITIONAL INFORMATION RESPECTING THE METROPOLITAN SCHOOLS, ETC.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.

This Hospital contains 675 beds.

Fees for Lectures and Hospital Practice are payable by instalments —£31 10s. at the beginning of the first Winter Session, £31 10s. at the beginning of the first Summer Session, £36 15s. at the beginning of the second Winter Session.

Four House-Physicians and four House-Surgeons are appointed annually, on the payment of a nominal fee, and are provided with rooms by the Hospital authorities. The Midwifery Assistant is appointed without fee for six months, and is provided with rooms by the Hospital authorities. All diligent Students may enter their names for the above appointments.

The Clinical Clerks to the Physicians and to the Physician-Accoucheur, the Clerks to the Assistant-Physicians and Assistant-Surgeons, and the Dressers in the Special Departments, are chosen from the diligent Students. Sixteen Ward Dresserships are annually given to the Students of the second year who pass the best examinations in the subjects of Study of the first and second years, or who may be otherwise specially recommended. Other Dresserships may be obtained by payment of the usual fees.

The Tutor is Dr. Hensley; the Medical Registrar, Dr. Hollis; the Surgical Registrars, Mr. Marsh and Mr. Bloxam.

A Course of Microscopic Demonstrations is given during the Summer Session.

Special Departments:—Diseases of the Skin (Dr. Duckworth, Friday, at 1.30), Diseases of the Eye (Mr. Power and Mr. Vernon, Monday, Tuesday, Thursday, and Friday, at 2), Diseases of the Ear (Mr. Thomas Smith, Friday at 2.30), Orthopædic Surgery (Mr. Willett, Wednesday, at 12.30), Dental Surgery (Mr. Coleman, Friday, at 9 a.m.).

The following Scholarships and Prizes are awarded:—Senior Scholarship of the value of £50, Medicine, Surgery, Materia Medica and Therapeutics. Senior Scholarship of the value of £50, Anatomy, Physiology, and Chemistry. Scholarships of the value of £25 each will be awarded to those Students who are placed second in the Examinations for the Senior Scholarships. Junior Scholarships of the value of £50, £30, and £20 are awarded after the General Examination at the end of the Summer and Winter Sessions. The Jeaffreson Exhibition, founded 1868, to the value of £20, and tenable for two years, is awarded at the commencement of each Winter Session to the Student who passes the best Examination in the subjects of Preliminary Education. Wix Prize, founded 1842, is awarded for the best Essay on "The Connexion between Revealed Religion and Physical Science." Hichens Prize, founded 1851. Subject of Examination — Bishop Butler's Analogy. Bentley Prize, founded 1842. For the best Report of Medical cases occurring in the Wards of the Hospital during the previous year. It is expected that the Reports will comprise the Histories, Progress, Treatment, and Results of not less than Twelve Cases, with observations thereupon. Foster Prize. Subject of Examination—Practical Anatomy; Senior. Treasurer's Prize. Subject of Examination—Practical Anatomy; Junior. The Kirkes Gold Medal. Subject of Examination—Clinical Medicine.

Special Classes are held for the Matriculation, for the Prel. Scientific, and for other Examinations at the London University. Students preparing for other Examining Boards are arranged in classes and examined by the Lecturers and Demonstrators.

A College for Resident Students exists in connexion with the Hospital. Resident Warden, Mr. Morrant Baker.

Fee for general subjects for Students of Dental Surgery: First Winter, £26 5s.; First Summer, £26 5s.; or a single payment of £52 10s.

All communications must be addressed to the Warden of the College, St. Bartholomew's Hospital.

CHARING-CROSS HOSPITAL.

Gentlemen are received—1st. As Matriculated Students, or those who enter for their entire Medical Education at the Charing-cross Hospital Medical College. 2ndly. As occasional Students, or those who enter to one or more particular classes. Matriculated Students alone have the privilege of filling the offices of Registrar, Pathological Assistant, Assistant-Demonstrator, Clinical Clerks, Dressers, Dentist's Assistant, Resident Medical Officer, Resident Surgical Officer, and Physician-Accoucheur's Assistant, and of becoming Candidates for the Scholarships, Medals, and various general class prizes.

The Fee for the Courses of Lectures and Hospital Practice required by the University of London, the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries, to Non-Matriculated Students, is £82 19s.; for the Hospital Practice alone, £31 10s. The Fee to Matriculated Students for the full period of the Lectures and Hospital Practice required by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries, is £76 6s. 5d.; for the Hospital Practice alone, £28 19s. 8d. The Fee for Matriculation is £2 2s., to be paid on entering. Payment of Fees may be made either in one sum (£76 6s. 5d.) on Matriculation, or in three instalments.

The office of Registrar to the Hospital, and Pathological Registrar to the School, tenable for two or three years, for the efficient performance of the duties appertaining to which the Council award an annual stipend, is open to all Matriculated Students of the Hospital who have obtained their qualifications, as are also the offices of House-Physician, House-Surgeon, and Resident Physician-Accoucheur's Assistant.

Scholarships, Medals, and Prizes. — *Scholarships:* The Llewellyn Scholarship of £25 is open to all Matriculated Students who have just completed their second academical year. The Golding Scholarship of £15 a year, tenable for two years, is open to all Matriculated Students who have just completed their first academical year. The following medals are awarded annually:—The Gold Medal, for General Proficiency; the Governors' Clinical Silver Medal; Silver Class Medals, on all the subjects of the Lectures; Bronze Class Medals, on all the subjects of the Lectures.

Free Scholarships.—Candidates for Free Scholarships are required to be sons of Professional men of reduced circumstances and position, or of gentlemen in a corresponding station of society, and are to have had a classical education fitting them for the Medical Profession. They must have already commenced their Medical studies, and, from unforeseen circumstances, be unable to complete their Professional education without such assistance. They are to send in their applications and testimonials before September 1.

ST. GEORGE'S HOSPITAL.

Perpetual pupils pay at the time of entry a compounding fee of £105. They are admitted to the Practice of the Physicians and Surgeons, to all the Lectures (except Practical Chemistry), to compete for all prizes and exhibitions, to hold the appointments of House-Physician, House-Surgeon, Assistant House-Physician, Assistant House-Surgeon, and Clinical Clerk and Dresser for two periods of three months each.

Gentlemen are admitted to the Hospital Practice and Lectures required for the Licence of the College of Physicians, for the Diploma of Member of the College of Surgeons, and for the Licence of the Society of Apothecaries (with the exception of Practical Chemistry), on payment of the following fees—viz., £42 for the first year of study, £42 for the second year of study, and £10 10s. for each succeeding year. By payment of these fees pupils are entitled to hold the office of Clinical Clerk and Dresser.

The studies of the pupils are superintended by a Medical Tutor (Mr. Edgelow). Each student pays one guinea per annum on this account during the first three years of his attendance. A fee of five guineas in addition is charged to those who desire to be instructed in the special subjects required for each examination at the University of London. The House-Physician is appointed annually, from among the Physicians' Perpetual Pupils. He pays £50 for board and residence. The House-Surgeons are appointed half-yearly, from among the Surgeons' Perpetual Pupils. The pupil selected pays £50 for 12 months' board and residence. One of the Physicians' Perpetual Pupils is appointed for six months, to aid the Assistant-Physicians in prescribing for the out-patients. Assistant House Surgeon.—One of the Surgeons' Perpetual Pupils is appointed half-yearly, to attend in the Surgical Out-Patient Department. The Curator of the Museum and the Medical and Surgical Registrars, each with a salary of £50 per annum, and a paid Demonstrator of Anatomy, are appointed from amongst the senior pupils.

Exhibitions and Prizes.—"The William Brown Exhibition," of £40 per annum, tenable for three years: This Exhibition is competed for by perpetual pupils who have commenced their third, but not completed their fourth Winter Session. It will be "bestowed on the candidate who shall show the best general fitness for the exercise of the Medical Profession, and whose moral conduct shall in all respects be satisfactory." Sir Charles Clarke's Prize for Good Conduct: The interest of £200 Consols to be awarded annually to the student of the Hospital "who, by reason of his general good conduct during the preceding year, should be considered the most deserving." The Thompson Medal: A Silver Medal to be awarded annually for the best Clinical Report of Medical and Surgical Cases observed in the Hospital during the preceding twelve months. Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the perpetual pupil of the Hospital who shall have delivered to the Surgeons the best report of not more than twenty Surgical cases which have occurred in the Hospital during the preceding twelve months. Dr. Acland's Clinical Prize in Medicine will be awarded to the perpetual pupil of the Hospital who shall produce the best report of not more than twenty Medical cases which have occurred in the Hospital during the preceding twelve months. The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in Practical Anatomy. General Proficiency Prizes:—To pupils in their first year, £10 10s.; to pupils in their second year, £10 10s.; to pupils in their third year, £10 10s.

For further information apply to Dr. Barclay or Dr. Wadham.

GUY'S HOSPITAL.

This Hospital contains nearly 600 beds.

Voluntary Examinations are held at four periods of the Student's Course, as follows:—1st. At entrance, commencing on October 5, in Elementary Classics, Ancient and Modern History, and Mathematics. The Candidate who most dis-

tinguishes himself receives £25; the second Candidate, £20; the third £15. 2nd. At the end of the first Sessional year, in all the subjects of that year:—one sum of £30, another of £25, and a third of £10 10s. (presented by one of the Governors). 3rd. At the end of the Second Sessional year, in the subjects which form the Course of Study up to that time:—£35 and £30. 4th. At the end of the third Sessional year, in all the subjects of the Curriculum:—£40 and £35. Honorary Certificates are also given to Candidates who pass creditable examinations.

Special Examinations.—Two Gold Medals are given annually by the Treasurer to Students who have completed their third, and not exceeded their fourth year—the one for Clinical Medicine, the other for Clinical Surgery.

The Fees for Hospital Practice and Lectures are as follows: For the First Year, £40; for the Second Year, £40; and £10 for every succeeding year of attendance—the one payment of £100 entitles a Student to a perpetual ticket. Materials used in Practical Courses are charged extra.

House-Physicians and House-Surgeons, Resident Obstetric Clerks, Surgeons' Dressers, Clinical Clerks, Dressers in the Eye Wards, Assistant-Physicians' Clerks, Assistant-Surgeons' Dressers, Dressers in the Surgery, Dental Surgeons' Dressers, Aural Surgeons' Dressers, Medical Ward Clerks, Post-mortem Clerks, Surgical Ward Clerks, Extern Obstetric Attendants, Obstetric Out-Patients' Clerks, Assistant Surgeon's Clerks, and Clerks in the Electrifying Room, are selected from the Students, according to merit.

The Registrars and the Demonstrators in Anatomy and Chemistry assist the pupils in their studies.

For further information apply to Mr. Stocker, Apothecary to the Hospital.

KING'S COLLEGE.

The fees, amounting to £100, may be paid either in one sum on Matriculation or at the commencement of each Winter Session. Students are, however, recommended to add £2 2s. for a second Course of Chemisty, as well as the fee for attendance on the Medical Tutor's class for one year—viz., £3 3s. All resident Students are required to attend the Tutor during their first year.

Resident Medical Officers, Clinical Clerks, and Dressers, are chosen by examination from Matriculated Students who are Pupils of the Hospital.

Scholarships.—Warneford Scholarships: The sum of £200 is set apart annually for Scholarships in the Medical Department—viz., "For the encouragement of the previous education of Medical Students," two Scholarships of £25 per annum for three years; "For the encouragement of resident Medical Students," one Scholarship of £25 per annum for two years. College Scholarships: The following are given every year to Matriculated Students of this department:—1. One of £40 for two years, open to Students of the third and fourth year; 2. One of £30 for one year, open to Students of the second year; 3. One of £20 for one year, open to Students of the first year. Daniell Scholarship: £20, tenable for two years, is open to every Student of the College who has worked in the Laboratory for at least six months. Sambrooke Registrarships: Two of £30 every year.

Prizes.—Leathes Prizes: Bible and Prayer-book to two Matriculated Medical Students. Warneford Prizes: £40 is expended in the purchase of Medals and Books as Prizes to two Matriculated Medical Students. Class Prizes are awarded annually for proficiency; these consist of Books of the value of £3. Two Medical Clinical Prizes, one of £3 for the Winter Session and the other of £2 for the Summer Session; and two Surgical Clinical Prizes of the same value are given for attendance at the Hospital. Todd Medical Clinical Prize: This Prize was founded in memory of the late Dr. Todd. It consists of a Bronze Medal and Books to the value of £4 4s.

Residence of Students.—A limited number may reside within the College.

For further information apply to Professor Bentley, Dean of the Medical Department.

ST. MARY'S HOSPITAL.

The Hospital contains 170 beds—68 Medical, and 102 Surgical. There are Special Departments for the Diseases of Women and Children; and for Diseases of the Eye, the Ear, the Skin, and the Throat.

Resident Medical Officers, Clinical Clerks, and Dressers.—All these appointments are open to the Pupils without additional fee, and are held in succession, so as to secure a complete system of Clinical training. Five of these appointments exceed in value an equal number of Scholarships of £50 each. All General Students are required to perform the duties of Clinical Clerks and Dressers for a period of six months during the last two years of their Curriculum. Students of the third year are appointed to assist the Physicians and Surgeons in charge of the out-patients, and the Curator in the performance of the post-mortem examinations. A Resident Registrarship within the Hospital has been created with a salary of £100 a year, tenable for one year, *and open to re-election*, preference being given to past House-Surgeons and Perpetual Pupils.

Prizes.—Examinations for Prizes are held at the termination of each Session, the Classes being grouped in accordance with the Curriculum laid down for Students of the First, Second, and Third Year. The average value of each of these Prizes is £5 5s. A Scholarship in Anatomy, of the annual value of £25 (the holder of which will be styled Assistant-Demonstrator, and assist in the teaching of Practical Anatomy), will be awarded to the best qualified Student. A Prize of £20 for Students for the First Year is awarded at the end of the Winter Session. A Prize of the value of £4 4s. will be given to the Student who shall make the best Anatomical Preparation, such Preparation to become the property of the School. Two Prosectors are appointed annually, who each receive a Certificate and £5 for their services in the Dissecting-room.

The Entrance Fees for General Students may be paid in instalments by arrangement with the Dean of the School. A Fee of £1 1s. is required to be paid to the Library and Reading-room. Instruction in Vaccination can be obtained, Fee £1 1s.

Further information may be obtained from Dr. Cheadle, Dean of the School, or from Mr. Knott, the Registrar, at the Hospital.

THE LONDON HOSPITAL.

The next Winter Session will commence on Monday, October 3, 1870.

General Fee to Lectures and Hospital Practice 84 guineas, payable in two instalments of 42 guineas each. Library fee, One guinea. Special entries can be made to Lectures or Practice.

The Hospital contains 570 beds. There are Medical and Surgical Wards for Children, Wards for Syphilis, Special Departments for Diseases of Women, Diseases of the Eye, Diseases of the Ear, Diseases of the Skin, and special arrangements for Diseases of the Throat. A Maternity Department exists for the delivery of lying-in women at their own homes. 622 cases were attended last year by the Students of the Hospital.

For Instruction in Mental diseases, Students can attend, without further fee, the practice of Dr. John Millar, Medical Superintendent of Bethnal House Asylum, a few minutes' walk from the Hospital. Clinical Lectures, both Medical and Surgical, will be given every week, and Practical Instruction imparted in all the departments.

The In-patients during 1868 were 4274, and the Out-patients 29,656 (equivalent to 120,000 attendances); total, 33,930.

At the Medical College, which has been enlarged, Lectures will be given on all the subjects required by the Examining Boards.

The following Prizes and Appointments are open, without further payment, to Students paying the general fee of 84 Guineas:—Seven Scholarships to be offered for competition in the Winter Session—1. A Scholarship of £30 to the Student of less than three months' standing who passes in October the best examination in the subject required at the Preliminary Examinations. 2. A Scholarship of £20 to the Student of less than three months' standing, placed second in the above examination. 3. A Scholarship, value £20, in Human Osteology, for first-year Students, to be awarded at Christmas, 1870. A Scholarship, value £25, in Anatomy, Physiology, and Chemistry, for first-year Students, to be awarded in April, 1871. 5. A Hospital Scholarship, value £20, for Clinical Medicine, to be awarded in April, 1871. 6. A Hospital Scholarship, value £20, for Clinical Surgery, to be awarded in April, 1871. 7. A Hospital Scholarship, value £20, for Clinical Obstetrics, to be awarded in April, 1871. The Duckworth Nelson Prize, value £10 10s., for Practical Medicine and Surgery (biennial). Money Prizes to the value of £60 given annually by the House Committee for zeal in dressing Out-patients and knowledge of Minor Surgery. Certificates of Honour in all the classes, according to the results of the General Examination at the end of the Session, and Special Certificates to those who have fulfilled with credit the duties of the Hospital appointments. Three House-Surgeoncies, tenable for three or six months, and

Dresserships to In-patients, open to all. Dresserships to Out-patients, with the privilege of competing for the Prizes above mentioned. The office of Resident Medical Officer, tenable for two years, with a salary of £75 the first year, and £100 the second year. The office of Junior Resident Medical Officer, tenable for six months. Four Medical Assistantships, held for three months, with residence and board in the Hospital for three weeks. The office of Resident Accoucheur, tenable for six months. N.B.—The holders of all the resident offices are provided with rooms and board free of expense. Two offices of Clinical Assistant in the Medical Out-patient Department, each at a salary of £40. Two offices of Clinical Assistant in the Surgical Out-patient Department, each at a salary of £40. The office of Medical Registrar, salary 25 guineas. The office of Surgical Registrar, salary 35 guineas. Two Prosectors of Anatomy, Ward Clerks, and Post-mortem Clerks, according to merit.

Further information may also be obtained from Mr. J. Adams, Treasurer, 10, Finsbury-circus, E.C.; Mr. Rivington, Dean, 22, Finsbury-square, E.C.; or Mr. Waren Tay, Vice-Dean, 10, Finsbury-pavement, E.C.

MIDDLESEX HOSPITAL.

The Hospital contains upwards of 300 beds, of which 185 are for Surgical, and 120 for Medical cases. There is a special department for Cancer cases, affording accommodation for 33 in-patients, whose period of residence in the Hospital is unlimited. Wards are also appropriated for the reception of cases of Uterine Disease and of Syphilis, and beds are set apart for patients from Diseases of the Eye.

Special attention is bestowed on the Clinical Instruction of the Students, both in the wards and out-patient rooms. Classes, open to all the Students, are held for practical instruction in the microscopic examination of healthy and diseased tissues, and also in the application of bandages and other Surgical apparatus. Students are allowed to take out to read at their own homes books from the library of the School. Three Clinical Prizes, including the Governors' Prize of twenty guineas, are annually awarded to those Students who pass the most satisfactory examination at the bedside and in the post-mortem room. Class Prizes are also given, and six resident Clinical appointments are annually awarded, after competitive examination, to Students who have completed their education, and complied with the regulations of the School. The officers thus appointed reside and board in the Hospital free of expense.

The College Tutor assists all general Students free of charge, especially those who are preparing for examination, and his daily instruction is arranged with a view to avoid the necessity of Students obtaining any private teaching apart from that of the Medical School.

The fee for attendance on the Hospital Practice and Lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries is £90, which may be paid by instalments.

ST. THOMAS'S HOSPITAL.

The admission fee to Hospital Practice and all the Lectures is £40 for the first year, and a similar sum for the second, and £10 for each succeeding year; or £90 at one payment for unlimited attendance. Special entries may be made to any Course of Lectures, or to the Hospital Practice.

All Students have the opportunity afforded them of being engaged in the performance of practical duties in connexion with the Medical, Surgical, Obstetric, Special, and Pathological departments of the Hospital.

There are special departments for Diseases of the Eye, Diseases of Women and Children, Vaccination, Diseases of the Skin, Diseases of the Teeth, and Mental Diseases.

Prizes and Appointments.—The William Tite Scholarship, awarded every third year: A Scholarship has been founded by Sir W. Tite, M.P., F.R.S., the proceeds of £1000 Consols, tenable for three years, on proof of continued residence and good conduct. Preference, in case of equality between students, to be given to the son of a Medical man, and more particularly of one who has been educated at St. Thomas's Hospital, or is in practice at Bath. To the three most distinguished pupils for general proficiency, the following Prizes are awarded at the end of the Session, 1869-70:—First Year's Students—1st. The Wm. Tite Scholarship; 2nd. A College Prize of £20; 3rd. Ditto of £10. Second Year's Students—1st. A College Prize of £30; 2nd. Ditto of £20; 3rd. Ditto of £10. Clinical and Obstetrical Clerks and Dressers are selected according to merit from among Second Year's Students. The Dressers and Obstetrical Clerks are provided with rooms and commons during their period of attendance in the Hospital free of expense. Third Year's Students—1st. A College Prize of £30; 2nd. Ditto of £20; 3rd. Ditto of £10. The Cheselden Medal, founded by George Vaughan, Esq., is awarded in respect of a Special Examination in Surgery and Surgical Anatomy. The Treasurer's Gold Medal is given annually for general proficiency and good conduct. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to the Third or Fourth Year's Students for a Physiological Essay, to be illustrated by preparations.

The House-Surgeons and Resident Accoucheur are chosen from gentlemen who have obtained their Professional diplomas. All are provided with rooms and commons. The two offices of Medical Registrar and Surgical Registrar are from time to time filled from among gentlemen who have completed their studies in the School. Each Registrar, on completing his Annual Report to the satisfaction of the Physicians and Surgeons, receives a gratuity of £40. If the two offices are held by one person, he then receives, on completing his Reports as above, a gratuity of £80.

The Tutor in Arts is Mr. S. Hague, LL.B., B.A. Lond.

For further information, apply to Mr. Whitfield, Medical Secretary, the Manor-house, St. Thomas's Hospital, Newington, London, S.E.

UNIVERSITY COLLEGE, LONDON.

The fee for Lectures and Hospital Practice required by the Colleges of Physicians and Surgeons and the Society of Apothecaries during the Student's first year is as follows:—First Winter Session, £37 10s.; First Summer Session, £16 16s. The recent alterations in the Regulations of the College of Surgeons will occasion some important changes in the Curriculum for the following years of study, and consequently, in the fees payable in them; but the details have not yet been settled.

Entrance Exhibitions.—Three entrance Exhibitions, of the respective values of £30, £20, and £10 per annum, tenable for two years, are annually awarded, upon examination by printed papers, to gentlemen who are about to commence their first winter's attendance in a Medical School. The subjects of the examinations are: Classics, Elementary Mathematics, Natural Philosophy, and either French or German at the option of the Candidate. The next examination will take place at the College on September 28 and 29. Notice of intention to compete, with a statement of the modern language in which the Candidate wishes to be examined, must be left addressed to the Secretary, not later than 2 p.m. on Saturday, September 24, at the office of the College, where the Regulations may be obtained.

Scholarships and Exhibitions.—The Atkinson Morley Surgical Scholarship, of £45, tenable for three years, is annually awarded to the Student who, upon examination, is found to possess the greatest proficiency in the Theory and Practice of Surgery. Filliter Exhibition: A Prize of £30 is awarded annually, in July, to the most proficient Student in the class of Pathological Anatomy.

Medals and Prizes.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, awarded at the end of the Winter and of the Summer Session to Pupils who have most distinguished themselves by reports and observations on the Medical cases in the Hospital. The Liston Gold Medal is awarded at the end of the Summer Session to the Pupil who has most distinguished himself by reports and observations on the Surgical cases in the Hospital. The Alexander Bruce Gold Medal will be awarded for proficiency in Pathology and Surgery.

Class Medals and Prizes.—Besides the above, Gold and Silver Medals or other Prizes are awarded in each class.

The Appointment of Assistant Curator to the Museum of Anatomy and Pathology, of Demonstrators of Anatomy, of Resident Medical Officer to the Hospital, and of Surgical Registrar—all of which have emoluments attached to them—are almost invariably conferred upon Students of the College.

Offices in the Hospital tenable by Students.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, Ward Clerks, and Ophthalmic Surgeons' Assistants are selected from the Pupils, without additional fees. The Physicians' Assistants, Obstetric Assistant, and House-Surgeons reside in the Hospital, paying for their board.

Further information and detailed prospectuses may be obtained at the office of University College, Gower-street, W.C.

WESTMINSTER HOSPITAL.

The entry fee to Lectures and Hospital Practice required by the College of Physicians and Surgeons and the Society of Apothecaries may be paid in one sum of £70 or in three instalments—£35 at the commencement of the first year, and £30 and £10 respectively at the commencement of the second and third years.

In addition to the practice of the Hospital, which contains 191 beds, the pupils of this school are admitted to the practice of the Westminster Ophthalmic Hospital, and to that of the National Hospital for Epilepsy and Paralysis.

Prize Appointments.—A House-Physician and House-Surgeon are appointed annually, and these officers are provided with board and lodging free of expense. There are Medical and Surgical Registrars, both of whom receive a salary. A Medical Obstetric Assistant will be immediately appointed, who will board and reside at the Hospital without fee.

Prizes.—Besides prizes of books or instruments attached to each subject of study, including two Clinical prizes of the value of five guineas each, there is a prize of £20 given annually to the most meritorious student of the second or third year, and one of five guineas to a similar student of the first year.

Full particulars as to courses of lectures and mode of instruction will be found in the Annual Prospectus of this School, or may be obtained by personal application to Dr. Sturges, the Dean of the School.

ENGLISH PROVINCIAL SCHOOLS AND HOSPITALS.

QUEEN'S COLLEGE, BIRMINGHAM.

Professors of the Medical Faculty.—Winter Courses: Medicine, Dr. James Russell, Dr. Balthazar W. Foster; Surgery, Mr. Oliver Pemberton, Mr. Furneaux Jordan; Anatomy, Mr. Charles J. Bracey, M.B. Lond., and J. F. West, F.R.C.S.,; Physiology, Dr. Richard Norris, Mr. T. H. Bartleet, M.B. Lond.; Chemistry, Dr. Alfred Hill, F.C.S.; Demonstrator of Anatomy, Mr. William Thomas, M.B. Lond., F.R.C.S. Summer Courses: Midwifery, Mr. John Clay, Mr. John Bassett; Diseases of Women and Children, Mr. Samuel Berry and Dr. R. C. R. Jordan; Forensic Medicine and Toxicology, Mr. Thomas Swain and Dr. Alfred Hill; Practical Chemistry, Mr. Alfred Anderson, F.C.S.; Botany, Dr. William Hinds; Materia Medica and Therapeutics, Mr. J. St. S. Wilders and Mr. Edward Mackey, M.B. Lond.; Ophthalmic Surgery, Mr. J. Vose Solomon: Dental Surgery, Mr. Thos. Howkins; Comparative Anatomy, Dr. Thomas Savage; Medical Tutor and Registrar, Mr. James Hinds, M.B. Lond.

Hospital Practice may be attended at either the General Hospital or the Queen's Hospital, which are equidistant from the College.

Resident Students.—Students may reside within the College, where they will be provided with rooms and board, and will be under the supervision of the Warden and Resident Tutors. Resident Students are expected to attend the College Chapel, unless specially exempted by the Warden.

Resident Tutors.—The Professor of Classics, the Professor of Mathematics, and the Medical Tutor.

Scholarships and Prizes.—Two Warneford Scholarships, the Sands Cox Prize (value of £20), the Warden's Prize (of the value of five guineas), the Percy Prize (books of the value of five guineas), and Class Prizes, Medals, and Certificates of Honour are awarded annually.

Fees.—Composition Fee for all the Lectures required by the University of London, the Royal College of Physicians, the Royal College of Surgeons, and the Apothecaries' Society, fifty guineas, payable by two equal instalments; the first on entrance, and the second at the commencement of the second year. Fees for Anatomy, Physiology, Medicine, and Surgery are £5 5s.; for Demonstration, Chemistry, and Midwifery, £4 4s.; for the other courses £3 3s.; for the Summer (with the exception of Midwifery, £5), £4 or £3 3s. Fees for Resident Students, for rooms and commons, £50 per annum.

The prospectus of the Medical Department, and further information, may be obtained by application to the Rev. the Warden, at the College; or to Professor Foster, M.D., 4, Old-square, Birmingham, Physician to the General Hospital; or to Professor Furneaux Jordan, Colmore-row, Birmingham, Surgeon to the Queen's Hospital.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

Physicians, Dr. Fleming, Dr. Johnston, Dr. Heslop. Surgeons, Mr. West, Mr. Gamgee, Mr. Furneaux Jordan, Mr. J. St. S. Wilders. Dental Surgeon, Mr. Adams Parker. Resident Physician and Medical Tutor, Dr. Sawyer. Resident Surgeon and Surgical tutor, Dr. Jolly.

Fees for Medical and Surgical Practice, for six months, £10 10s.; for one year, £15 15s.; for three years, £31.

Several Clinical Prizes are offered for competition to Students of the second, third, and fourth years. They vary from £2 2s. to £5 5s. in value.

The Hospital has special wards for Diseases of Children and Venereal Diseases. Clinical Lectures and Instruction are delivered daily at the Hospital by the Physicians and Surgeons. Fees are to be paid to Mr. H. C. Burdett, Resident Secretary to the Hospital. The register of tickets for attendance on Clinical Lectures, and on Medical and Surgical Practice, is open at the Hospital from October 1 to October 15, 1870, and May 1 to May 15, 1871. Special instruction in Dental Surgery by Mr. Adams Parker. Fee, £2 2s.

GENERAL HOSPITAL, BIRMINGHAM.

Physicians, Dr. Bell Fletcher, Dr. Russell, Dr. Wade, Dr. Foster. Surgeons, Mr. Alfred Baker, Mr. Oliver Pemberton, Mr. T. H. Bartleet, Mr. W. P. Goodhall. Resident Physician and Tutor, Dr. Welch. Resident Surgeon, Mr. May.

Composition Fee for all the Medical and Surgical Practice required by the Examining Boards, Thirty (30) guineas.

Clinical Lectures are delivered by the Physicians and Surgeons every week during the Session.

BRISTOL MEDICAL SCHOOL, SESSION 1870-71.

The Winter Session will commence on Monday, October 3, 1870. Medicine, Dr. Martyn and Dr. Fox. Surgery, Mr. Coe and Mr. Leonard. General Anatomy and Physiology, Messrs. Atchley and Steele. Descriptive and Surgical Anatomy, Mr. Lansdown and Mr. Tibbits. Superintendence of Dissections, Messrs. Dowson and Dobson. Chemistry, Mr. Coomber.

The Summer Session will commence on May 1, 1871. Midwifery, and Diseases of Women, Dr. J. G. Swayne. Forensic Medicine, Mr. E. C. Board. Materia Medica and Therapeutics, Dr. G. F. Burder. Botany, Mr. A. Leipner. Practical Chemistry, Mr. Coomber. Comparative Anatomy, Mr. Atchley.

Fee for perpetual attendance on all the above Courses, except Comparative Anatomy, £52 10s.

Competitive Examinations are held amongst Students of the first, second, and third years respectively; and prizes of money, instruments, and books, are annually awarded.

Medical and Surgical Hospital Practice and Clinical Lectures are attended at the Royal Infirmary or at the General Hospital.

Further information may be obtained on application to the Honorary Secretary, Dr. G. F. Burder.

BRISTOL ROYAL INFIRMARY.

The Infirmary contains 242 beds. Physicians, Dr. Brittan, Dr. Fairbrother, Dr. Fox, Dr. Beddoe. Surgeons, Mr. Bernard, Mr. Leonard, Mr. Clark, Mr. Tibbits, and Mr. Steele.

Fees.—For one year, Surgeon's pupil, £12 12s.; Dresser (extra fee), £12 12s. For two years (at one payment) Surgeon's pupil, £21; Dresser (extra fee), £21. For three years (at one payment), Surgeon's pupil, £26 5s.; Dresser (extra fee), £26 5s. Dressers reside in the House in weekly rotation. Physician's pupil, for six months, £8; one year, £15; eighteen months, £20; perpetual, £25. Clinical Clerks are appointed without extra fee. A Gold Medal and other Prizes are awarded annually. Patients admitted in 1869: In-patients, 2655; out-patients, 21,933; total, 24,588.

BRISTOL GENERAL HOSPITAL.

The Hospital contains 130 beds. Physicians, Dr. Martyn, Dr. Burder, Dr. Fripp. Surgeons, Mr. Coe, Mr. Lansdown, Dr. H. Marshall, Mr. G. F. Atchley. Physician-Accoucheur, Dr. Swayne. Two Scholarships of £15 each are awarded annually. Also a Scholarship, called the Sanders Scholarship, for the study of Medicine and Surgery, being the interest of £500 (to be given annually), bequeathed to the Hospital by the late J. N. Sanders, Esq.

Fees.—Medical or Surgical Practice, for six months, £6; one year, £10; perpetual, £20. Extra fee for Clinical Clerk or Dresser, £5 5s. for six months. Library fee, £1 1s. per annum. Dressers reside in the Hospital by rotation and free of expense.

Resident Pupils (including board, lodging, and washing), £130 for the first year, £60 for each subsequent year. Or for five years, with apprenticeship to the Hospital, £260.

Further information will be afforded by Mr. Atchley on application being made to him at the Hospital.

LEEDS SCHOOL OF MEDICINE.

The Winter Session will commence on Monday, October 3, 1870. Anatomy, by James Seaton, M.R.C.S., Robert T. Land, M.D., M.R.C.S., and John A. Nunneley, M.B., M.R.C.S. Physiology, by William Hall, M.R.C.S., and Thomas R. Jessop, F.R.C.S. Principles and Practice of Medicine, by Charles Chadwick, M.D., F.R.C.P., John D. Heaton, M.D., F.R.C.P., and T. C. Allbutt, M.A., M.D., F.L.S. Principles and Practice of Surgery, by Claudius G. Wheelhouse, F.R.C.S., and T. Pridgin Teale, M.A., F.R.C.S. Chemistry, by J. Chapman Wilson, F.C.S. Materia Medica, by John E. Eddison, M.D. Midwifery, by W. Hall, M.R.C.S. Forensic Medicine, by Thomas Scattergood, M.R.C.S. Botany, by Edward Atkinson, M.R.C.S., F.L.S. Comparative Anatomy, by C. G. Wheelhouse, F.R.C.S., and T. C. Allbutt, M.A., M.D., F.L.S. Assistant-Demonstrators of Anatomy, Robert Parr Oglesby, M.R.C.S., and Charles James Wright, M.R.C.S. Demonstrations in Operative Surgery, by Messrs. S. Hey, C. G. Wheelhouse, and Pridgin Teale. Demonstrations of Skin Diseases, by Dr. Allbutt, at the Infirmary. Ophthalmoscopic Demonstrations, by Mr. T. Pridgin Teale. Total fees, entitling to all the Lectures (except Practical Chemistry) and Hospital Practice required by the Licensing Boards, £84. These fees may be paid at once, or in two instalments at the commencement of the first and second years. Fee to practical Chemistry, £2 2s. Entrance Fee to Library and Reading-room, £1 1s., to be paid by all students on entrance. Instructions in Vaccination, as required by the College of Surgeons and the Poor-law Board, is given by Mr. Holmes, of Burmantofts, one of the Public Vaccinators. Fee, £1 1s. At the close of each Session, Examinations for Prizes are held, when Silver and Bronze Medals, Books, and Certificates of Honour are presented according to merit. Two Clinical Prizes of £10 each, a Forensic Medicine prize of £10, and two Chemical Scholarships, are awarded to Students.

Clinical Clerkships and Dresserships.—In accordance with the recent requirements of the Examining Boards, it is now arranged that every Student in turn shall pass through the offices of Clinical Clerk and Dresser. No Certificate of Hospital Practice will be granted to Students who have not held these offices.

Resident Medical Officers.—Four House-Surgeons are elected for the service of the Infirmary, to work under the direction of the Resident Medical Officer. They are chosen from those senior Students who have shown industry and skill as Dressers and Clinical Clerks. They are provided with private apartments, board, gas, and coal, in the Hospital, without charge.

For further information, apply to the Secretary, Dr. Eddison, 19, Park-square.

Honorary Medical Officers of the Hospital.—Consulting Surgeon: William Hey, F.R.C.S. Physicians: Charles Chadwick, M.D., F.R.C.P.; John Deakin Heaton, M.D., F.R.C.P.; and T. Clifford Allbutt, M.A., M.D., F.L.S. Surgeons: Samuel Hey, F.R.C.S.; C. G. Wheelhouse, F.R.C.S.; T. Pridgin Teale, M.A., F.R.C.S.; T. R. Jessop, F.R.C.S.

Terms of Attendance upon the Hospital Practice.—The fees for attendance upon the Medical Practice alone, or upon the Surgical Practice alone, are as follows, being the same in each case. One Winter Session, £7 7s.; one Summer Session, £6 6s.; Twelve Months, £12 12s.; Eighteen Months, £15 15s.; Three Years, £21. Applications for Medical Practice are to be made to Dr. Heaton, Claremont, between 9 and 10 a.m. Applications for Surgical Practice are to be made to Mr. T. Pridgin Teale, 20, Park-row, between 10 and 12 a.m.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

The Introductory Address will be delivered on October 3, 1870, at 3 p.m., by Dr. Brown.

Hospital Practice, Royal Infirmary.—Physicians, Dr. Vose, Dr. Turnbull, Dr. Inman. Surgeons, Mr. Stubbs, Mr. Bickersteth, Mr. Hakes. Assistant-Surgeons, Mr. Harrison. House-Surgeons, Dr. Cleaver and Mr. Matthews. Pathologist, Mr. Banks. Dental Surgeon, Mr. Snape.

Terms for Hospital Attendance and Clinical Lectures:—

	Medical Practice.	Surgical Practice.
For Six Months . .	£5 5 0	£5 5 0
One Year . .	6 6 0	6 6 0

Lectures, Winter Session.—Medicine, Dr. Cameron. Surgery, Mr. Harrison. Physiology, Dr. Waters. Anatomy, Mr. W. M. Banks. Dissection, Dr. Glynn and Mr. E. A. Browne. Chemistry, Dr. Brown.

Lectures, Summer Session.—Midwifery, Dr. Steele. Diseases of Children, Dr. Gee. Materia Medica, Dr. Nevins. Medical Jurisprudence, Dr. E. Whittle. Toxicology and Practical Chemistry, Dr. Brown. Botany, Dr. W. Carter. Ophthalmic Medicine and Surgery, Dr. Hibbert Taylor. Comparative Anatomy and Zoology, Dr. Davidson.

Exhibitions.—Royal Infirmary Medical Scholarship—value £42—consisting of Gold Medal, value £10 10s., and Six Months' Free Board and Residence, with Clerkship and Dressership, in the Royal Infirmary.—Four Exhibitions—value £31 10s. each—consisting of Six Months' Free Board and Residence in the Royal Infirmary.

The Fee for all the Lectures required by the Colleges of Surgeons and Physicians and the Apothecaries' Hall is £42 (exclusive of Practical Chemistry), payable in advance.

LIVERPOOL NORTHERN HOSPITAL.

The Winter Session will commence on Saturday, October 1. Physicians, Dr. Waters and Dr. Glynn. Surgeons, Mr. Manifold, Mr. Lowndes, and Mr. Branston Nash. Junior Surgeon, Mr. John Bradley. Dental Surgeon, Mr. James Lloyd. House Surgeon, Mr. J. D. Chalmers. Junior House Surgeon, Mr. G. Andrews.

The Hospital contains 146 beds, which are mainly devoted to severe accidents and cases of acute disease. There is a special ward for the treatment of the diseases and accidents of children. About 4500 cases are annually treated at the Hospital, of which about 1500 are in-patients. The visits of the Physicians and Surgeons are made between one and two o'clock p.m. daily. Clinical Lectures are regularly delivered by the Physicians and Surgeons during the Winter and Summer Sessions. Clinical Clerkships and Dresserships are open to all the students, without additional fee. Clinical Prizes will be awarded at the termination of the Winter Session.

Fees for Hospital Practice and Clinical Lectures.—Perpetual, 25 guineas; one year, 10 guineas; six months, 7 guineas; three months, 4 guineas. Students can enter to the Medical or Surgical practice separately, on payment of half the above fees. The Hospital receives one resident pupil, fee 60 guineas per annum. Attendance on the practice of this Hospital qualifies for all the Examining Boards.

For further particulars apply to the House Surgeon, Mr. Chalmers.

MANCHESTER ROYAL SCHOOL OF MEDICINE AND SURGERY, FAULKNER-STREET.

The Winter Session will commence October 3, with an Introductory Address by L. H. Grindon.

Winter Session, 1870-71.—Physiology, by Mr. Smith. Descriptive Anatomy, by Mr. Lund and Mr. Bradley, Practical Anatomy, by Mr. S. M. Bradley. Chemistry, by Mr. Stone. Principles and Practice of Medicine, by Dr. Roberts and Dr. Morgan. Principles, Practice, and Operations of Surgery, by Mr. Southam. Anatomy, Physiology, and Pathology of the Eye, by Mr. Hunt.

Summer Session.—Midwifery and Diseases of Women and Children, Dr. Thorburn. General Pathology and Morbid Anatomy, by Dr. Simpson. Materia Medica, Medical Botany, and Therapeutics, by Mr. Somers. Forensic Medicine, by Mr. Harrison. Botany, by Mr. Grindon. Practical Chemistry, by Mr. Stone. Comparative Anatomy, by Mr. Bradley.

Perpetual fee to the whole of the Lectures required to qualify for Examination at the London University, the Royal Colleges of Physicians and Surgeons, and the Apothecaries' Company, £42.

Hospital Practice at the Royal Infirmary, where Clinical Lectures are regularly delivered by the Physicians and Surgeons of the Institution, composition fee £42.

Scholarships.—In addition to prizes, amounting to 36 guineas, for general proficiency, Three Scholarships for perpetual students will be offered for competition—one of £20 for third year's students; one of £15 for second year's students; one of £10 for first year's students.

Further particulars may be obtained from Mr. Southam; or from the Vice-Registrar, Mr. Stone, at the School.

UNIVERSITY OF DURHAM.—COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE.

Winter Session, commencing October 3, 1870.—Physiology, Dr. Murray. Anatomy, Dr. Nesham, Mr. Armstrong, and Mr.

Russell. Medicine, Dr. Charlton and Dr. Embleton. Surgery, Dr. Heath. Chemistry, Mr. Marreco, M.A.

Summer Session.—Midwifery, Dr. Gibson. Botany, Mr. Thornhill and Dr. Arnison. Medical Jurisprudence, Dr. Donkin. Materia Medica, Dr. Humble. Practical Chemistry, Mr. Marreco, M.A. Operative Surgery, Dr. Heath. Pathological Anatomy, Dr. Gibb and Dr. Philipson. Pharmacy, Mr. Proctor.

Fees for Lectures.—Perpetual Fee for all the Lectures qualifying for the Licence in Medicine and the Mastership in Surgery of the University of Durham, the Licence and Membership of the Royal College of Physicians, the Diploma of the College of Surgeons, and the Licence of the Apothecaries' Society, and payable on entering to the first Winter Session, £46 4s. Perpetual Ticket for Pharmacy Curriculum, £6 6s. (This applies only to Students at present engaged in Pharmacy, and who enter before October, 1871.) Separate Courses of Lectures, each £4 4s. The Perpetual Ticket entitles the holder to attend the Lectures on Botany, Chemistry, Materia Medica, and Pharmacy, and to use the Museum of Materia Medica in the Library of the College.

Hospital Practice.—This can be attended at the Newcastle Infirmary, which contains 230 beds. Midwifery, Diseases of the Eye, Insanity, and Vaccination can be specially studied. The Laboratories, Libraries, and Museums are open daily.

Fees for Hospital Practice.—Twelve Months, £7 7s.; Six Months, £5 5s.; Three Months, £4 4s.; Perpetual Fee, £17 17s.; or, if paid by instalments, first year £7 7s., second year £6 6s., third year £5 5s. These fees also are payable in advance.

Medical Scholarships in the University of Durham.—Four Scholarships, of £25 a year each, tenable each for four years. Two resident Clinical Clerkships, four resident Dresserships, and four non-resident Dresserships are conferred for merit. Dickinson Memorial Scholarship, £15, tenable for one year, for general proficiency. By a recent Act of Convocation, Students may now proceed to the Degrees of M.D. and C.M. of the University of Durham by keeping Terms either at Durham or Newcastle.

College Medals.—At the end of each Session a Silver Medal and Certificates of Honour will be awarded in each of the required classes.

Further particulars may be obtained from Mr. Luke Armstrong, Registrar, or of Dr. Arnison, Secretary.

SHEFFIELD SCHOOL OF MEDICINE.

The Winter Session will commence on October 1. Anatomy, Descriptive and Surgical, Mr. Skinner and Mr. A. Jackson. Demonstrations of Anatomy, Mr. Woolhouse. Physiology, Mr. Thos. Leeds, Mr. S. Morton. Principles and Practice of Medicine, Dr. Frank-Smith. Principles and Practice of Surgery, Mr. W. F. Favell and Mr. Parker, F.R.C.S. Chemistry, Mr. Allen. Dental Mechanics, Mr. G. Mosely. Clinical Medicine, Dr. De Bartolomé, Dr. Law, and Dr. Frank-Smith. Clinical Surgery, Mr. Barber, Mr. W. F. Favell, and Mr. Parker, F.R.C.S. Summer Session, commencing May 1, 1871. Midwifery and Diseases of Women, Dr. Keeling, and Dr. Hime. Materia Medica and Therapeutics, Dr. Young. Medical Jurisprudence and Toxicology, Mr. Baker and Mr. Harrison. Botany, Mr. Birks. Practical Chemistry, Mr. Allen. Dental Surgery, Dr. Merryweather. Demonstrations of Pathology and Microscopy. Mr. Hallam (at the Infirmary). Demonstrations of Operative Surgery, Mr. Favell and Mr. Parker, F.R.C.S.

Medical and Surgical Practice.—Sheffield General Infirmary.—Physicians, Dr. De Bartolomé, Dr. Law, Dr. Frank-Smith; Surgeons, Mr. Barber, Mr. Favell, Mr. Parker, F.R.C.S.; House-Surgeon, Mr. Hallam.

The Infirmary contains 160 beds for In-patients.

The Fees for Perpetual Attendance at the Infirmary are £15 15s. for Medical, £21 for Surgical Practice. For twelve months' Practice: Medical, £10 10s.; Surgical, £6 6s. Six months: Medical, £6 6s.; Surgical, £6 6s.

Sheffield Hospital for Diseases of Women.—Medical Officers: Dr. Jackson, Dr. Keeling, Dr. Hime, Mr. Woolhouse.

For further information apply to the Staff of the Institution.

Table of Fees, including Demonstrations.—Anatomy and Physiology (including demonstrations), first Course, £6 6s., second Course, £4 4s.; Practice of Medicine, first Course, £4 4s., second Course, £2 2s.; Practice of Surgery, first Course, £4 4s., second Course, £2 2s.; Chemistry, first Course, £4 4s.; Midwifery and Diseases of Women, first Course, £3 3s.; Materia Medica, first Course, £3 3s.; Medical Jurisprudence, first Course, £3 3s.; Botany, first Course, £3 3s.; Practical Chemistry, first Course, £3 3s.

Perpetual Fee for attendance on all the Lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £40.

All further information may be obtained on application to the Hon. Secretaries, Dr. Frank-Smith, 79, Norfolk-street, and Mr. A. Jackson, St. James's-row, Sheffield.

MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF EDINBURGH.—1870-71.

Principal—Sir Alexander Grant, Bart., LL.D.

The Session will be publicly opened with an Introductory Address by the Principal, on Tuesday, November 1, 1870. The Classes for the different branches of study will be opened as follows:—

Faculty of Medicine.—Materia Medica, Professor Christison, M.D.; Chemistry, Professor Crum Brown, M.D.; Surgery, Professor Spence; Institutes of Medicine or Physiology, Professor Bennett, M.D.; Midwifery and Diseases of Women and Children, Professor Simpson, M.D.; Clinical Surgery, Professor Lister; Clinical Medicine, Professors Bennett, Laycock, Maclagan, and Sanders; Anatomy, Professor Turner, M.B.; Natural History, Professor Allman, M.D.; Practice of Physic, Professor Laycock, M.D.: General Pathology, Professor Sanders, M.D.; Anatomical Demonstrations, Professor Turner; Botany, Professor Balfour, M.A., M.D.; Medical Jurisprudence, Professor Maclagan, M.D. The Lectures on Botany and Medical Jurisprudence are given in the Summer Session.

Royal Infirmary, at noon, daily. Practical Anatomy, Monday, October 3, under the superintendence of Professor Turner. Practical Chemistry, under the superintendence of Professor Crum Brown. Practical Physiology, under the superintendence of Professor Bennett.

During the Summer Session, Lectures will be given on the following subjects:—Botany, by Professor Balfour. Practical Physiology, including Histology, by Professor Bennett. Medical Jurisprudence, by Professor Maclagan. Clinical Medicine. Clinical Surgery, by Professor Lister. Comparative Anatomy, by Professor Turner. Anatomical Demonstrations, by Professor Turner. Practical Chemistry, under the direction of Professor Crum Brown. Practical Anatomy, under the superintendence of Professor Turner. Natural History, by Professor Allman. Medical Psychology and Mental Diseases, with practical instruction at an Asylum, by Professor Laycock. Operative Surgery, by Professor Spence. Practical Pathology, by Professor Sanders.

A Table of Fees may be seen in the Matriculation Office and in the Reading-room of the Library.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.

The Introductory Address will be delivered by Dr. Joseph Bell, on Tuesday, November 1st, at Eleven o'clock.

Winter Session, 1870-71.—The following Courses of Lectures on Medical and Surgical Science, and also those delivered in the University, qualify for Examination for the Diplomas of the Royal Colleges of Physicians and Surgeons:—Surgery, Dr. P. H. Walton, Dr. Joseph Bell, Mr. Annandale; Chemistry (Practical Chemistry and Analytical Chemistry), Dr. Stevenson Macadam; Midwifery and Diseases of Women and Children, Dr. Keiller and Mr. Matthews Duncan; Physiology, Dr. Arthur Gamgee; Clinical Medicine (Royal Infirmary), Drs. Haldane, Balfour, and Stewart; Dr. Matthews Duncan (for Diseases of Women); Clinical Surgery (Royal Infirmary), Dr. Gillespie; Anatomy (Lectures, Anatomical Demonstrations, Practical Anatomy), Dr. P. D. Handyside; Medical Jurisprudence, Dr. Littlejohn; Practice of Physic, Dr. Rutherford Haldane; General Pathology, Dr. John Wyllie.

Summer Session, 1871.—Classes open on Monday, May 1. Materia Medica and Therapeutics—Dr. Thomas R. Fraser. Pathological Anatomy and Histology—Dr. John Wyllie. Midwifery and Diseases of Women and Children—Dr. Keiller and Dr. Angus Macdonald. Medical Jurisprudence—Dr. Littlejohn. Clinical Medicine (Royal Infirmary)—Drs. Haldane, Balfour, and Stewart; Dr. Matthews Duncan (for Diseases of Women). Clinical Surgery (Royal Infirmary)—Dr. Gillespie. Anatomy.—Practical Anatomy and Anatomical Demonstrations—Dr. P. D. Handyside. Chemistry.—Practical Chemistry and Analytical Chemistry—Dr. Stevenson Macadam.

The above Courses qualify for the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin;

the University of Edinburgh and other Universities; and the other Medical and Public Boards.

The minimum cost of the education in the above School for the Double Qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons, including the fees for the Joint Examination, is £90 4s., which is payable by yearly instalments during the period of study; whilst the minimum cost for the Single Qualification of either Physician or Surgeon, including fee for Examination, is £80.

ROYAL INFIRMARY, EDINBURGH.

In this Hospital a portion of the beds is set apart for Clinical Instruction by the Professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the Ordinary Physicians and Surgeons. Separate Wards are devoted to Fever, Small-pox, Venereal Diseases, Diseases of Women, Diseases of the Eye; also to cases of Incidental Delirium or Insanity. Post-mortem Examinations are conducted in the Anatomical Theatre by the Pathologist, who also gives Practical Instruction in Pathological Anatomy and Histology. Professors of Clinical Medicine, Dr. Bennett, Dr. Laycock, Dr. Maclagan, Dr. Sanders. Extra Physician and Lecturer on Diseases Peculiar to Women, Dr. J. Matthews Duncan. Ordinary Physicians and Lecturers on Clinical Medicines, Dr. Rutherford Haldane, Dr. Geo. W. Balfour, Dr. T. Grainger Stewart. Assistant-Physicians, Dr. Claud Muirhead, Dr. Thos. R. Fraser. Consulting-Surgeon, Dr. Dunsmure. Professor of Surgery, Mr. Spence. Ordinary Acting-Surgeons, Dr. J. D. Gillespie (Lecturer on Clinical Surgery), Dr. P. H. Watson, Mr. Thos. Annandale. Professor of Clinical Surgery, Mr. Lister. Ophthalmic Surgeons, Mr. Walker, Dr. D. A. Robertson. Assistant-Surgeons, Dr. Joseph Bell, Dr. John Duncan. Dental-Surgeon, Dr. John Smith. Pathologist, Dr. James B. Pettigrew. Hospital Tickets.—Perpetual, in One Payment, £10; Annual, £5 5s.; Half-yearly, £3 3s.; Quarterly, £1 11s. 6d. Separate payments for Two Years entitle the Student to a Perpetual Ticket. No Fees are payable for any Medical or Surgical Appointment in this Hospital.

UNIVERSITY OF ABERDEEN.

Faculty of Medicine—Session 1870-71.

Winter Session, commencing on Wednesday, October 26.—Anatomy, Professor Struthers, M.D., £3 3s. Practical Anatomy and Demonstrations, Professor Struthers and the Demonstrator, £2 2s. Chemistry, Professor Brazier, £3 3s. Institutes of Medicine, Professor Ogilvie, £3 3s. Surgery, Professor Pirrie, £3 3s. Practice of Medicine, Professor Macrobin, M.D., £3 3s. Midwifery and Diseases of Women and Children, Professor Inglis, £3 3s. Zoology, with Comparative Anatomy, Professor Nicol, £3 3s. Medical Jurisprudence, Professor Ogston, £3 3s.

Summer Session, commencing on the first Monday in May.—Botany, Professor Dickie, £3 3s. Materia Medica (100 Lectures), Professor Harvey, £3 3s. Practical Anatomy and Histology, Professor Struthers and the Demonstrator, £2 2s. Practical Chemistry, Professor Brazier, £3 3s. Zoology, with Comparative Anatomy, Professor Nichol, £3 3s.

Matriculation Fee for the Winter and Summer Sessions, £1. For the Summer Session alone, 10s.

Royal Infirmary: Perpetual Fee to Hospital Practice, £6; or First Year, £3 10s.; Second Year, £3. Clinical Medicine, Drs. Harvey and Smith, £3 3s. Clinical Surgery, Drs. Pirrie, Kerr, and Fiddes, £3 3s. Pathology, Dr. Rodger, £2 2s. Dental Surgery, Mr. Williamson.

For further information apply to Dr. Macrobin, Dean of the Faculty of Medicine.

UNIVERSITY OF GLASGOW.

Faculty of Medicine.—The Classes open for the Winter Session on Tuesday, October 25, 1870, when an Introductory Lecture will be given by Professor Young.

Chemistry, Practical Chemistry, and Chemical Laboratory, Dr. Anderson, £3 3s. Practice of Physic, Dr. Gairdner, £3 3s. Anatomy, Anatomical Demonstrations, and Practical Anatomy, Dr. Allen Thomson and Demonstrator, £8 8s. Materia Medica, Dr. Cowan, £3 3s. Forensic Medicine, Dr. Rainy, £3 3s. Surgery, Dr. Macleod, £3 3s. Midwifery, Dr. Leishman, £3 3s. Institutes of Medicine, Dr. A Buchanan, £3 3s. Clinical Medicine and Clinical Surgery, Physicians and Surgeons of Royal Infirmary.

Further information may be obtained from the Registrar of the University.

ANDERSON'S UNIVERSITY, GEORGE-STREET, GLASGOW.

Winter Session 1870 opens October 26.

Chemistry, Practical Chemistry, and Laboratory, Vacant; Surgery, Dr. James Dunlop; Institutes of Medicine (Physiology), Dr. Watson; Anatomy, Anatomical Demonstrations, Practical Anatomy, or Dissection, Dr. G. Buchanan; Practice of Medicine, Dr. M'Call Anderson; Materia Medica, Dr. Morton; Hospital Practice in Royal Infirmary; Clinical Lectures in Royal Infirmary.

Summer Session.

Midwifery, Dr. J. G. Wilson; Medical Jurisprudence, Dr. P. A. Simpson; Surgical Anatomy, Practical Anatomy, Osteology for beginners, Dr. George Buchanan; Practical Chemistry, Vacant.

Class Fees: For each of the above Courses of Lectures, first Session, £2 2s.; second Session, £1 1s.; afterwards free.

Anatomy Class Fees: For both Courses (Lectures and Demonstrations), first Session, £4 4s.; second Session, £4 4s.; afterwards free.

Practical Anatomy; The Dissecting-room is free for two Sessions to those who attend both Courses of Anatomy. After the second year the fee for Practical Anatomy is £1 1s. per Session.

The Fees for all the Lectures and Hospital Practice required of Candidates for the Diplomas of Physician and Surgeon amount to £45.

GLASGOW ROYAL INFIRMARY.

The Winter Session commences on November 1, 1870. Physicians, Drs. W. T. Gairdner, Steven Perry, M'Call Anderson, and Scott Orr. Surgeons, Drs. E. Watson, Dewar, Macleod, G. Buchanan, and J. Morton. Fever Physicians, Drs. James Maclaren and M. Charteris.

Number of beds, 583.

Besides the Clinical Instruction given at the bedside, Lectures on the Cases are given four times weekly, at 9 a.m., during the Winter and Summer Sessions. Regular Operating days—Wednesdays and Saturdays.

The valuable Pathological Museum is open to all Students who desire to examine the Preparations.

Five Physicians' and five Surgeons' Assistants perform the duties of House-Physicians and House-Surgeons. These offices, held for one year, are open to Students of the fourth year. They are lodged and boarded in the Hospital for £25 per annum. Dressers to the Surgical Wards and Clerks to the Dispensary are appointed without fee.

Fees admitting to the Medical and Surgical Practice and the Clinical Lectures:—For Ticket: the first year, £3 3s.; second year, £3 3s.; third and perpetual, £1 1s.; for six months' attendance, £2 2s.; three months', £1 11s. 6d. Practical Pharmacy, six months, £3 3s.

Fees for Clinical Lectures, on Medicine, £3 3s., on Surgery, £3 3s.

Medical Superintendent, Dr. Mr. Thomas. Secretary, Mr. H. Lamond, 64, West Regent-street.

SCHOOLS AND HOSPITALS IN IRELAND.

SCHOOL OF PHYSIC, UNIVERSITY OF DUBLIN.

The School was established by Act of the Irish Parliament 40th George III. cap. 84, and is under the joint government of the Board of Trinity College and the King and Queen's College of Physicians.

Institutes of Medicine, Professor Law. Materia Medica and Pharmacy, Professor A. Smith. Surgery, Professor R. Smith. Anatomy and Surgery, Professor M'Dowel. Practical Anatomy, Dr. Bennett. Chemistry, Professor Apjohn. Practice of Medicine, Professor Moore. Midwifery, Professor Sinclair. Botany, Dr. E. Perceval Wright. Medical Jurisprudence, Professor Travers. Zoology, Professor Alexander Macalister, M.D. Physics, Professor John Leslie, M.A. Hospital Practice and Clinical Lectures at Sir Patrick Dun's Hospital.

SIR PATRICK DUN'S HOSPITAL.

Consulting Physician, William Stokes, M.D., Regius Professor of Physic. Consulting Surgeon, Robert Adams, M.Ch., Regius Professor of Surgery. The Clinical Lectures in Medi-

cine and Surgery are delivered by Physicians Robert Law, M.D., King's Professor of the Institutes of Medicine; William Moore, M.D., King's Professor of the Practice of Medicine; Aquilla Smith, M.D., King's Professor of Materia Medica and Pharmacy; Edward B. Sinclair, M.D., King's Professor of Midwifery. Surgeons, Thomas E. Little, M.D.; Robert W. Smith, M.Ch., Trinity College Professor of Surgery; Edward H. Bennett, M.Ch., University Anatomist; Richard G. Butcher, M.D., University Lecturer in Practical Surgery. The Physicians and Surgeons attend for Clinical Instruction on alternate days.

Hospital Fee for twelve months, including nine months' Clinical Lectures, nine guineas. Attendance on this Hospital is recognised by all Licensing Bodies.

ST. VINCENT'S HOSPITAL, DUBLIN.

The Winter Session will commence on Tuesday, November 1, 1870. Physicians—Dr. Francis J. B. Quinlan and Dr. Robert Cryan. Surgeons—Dr. Edward D. Mapother and Mr. William H. O'Leary. Surgeon-Dentist — Mr. William J. Doherty. Apothecary and Registrar—Mr. Dominick Dillon.

Further particulars may be learned on application to the Secretary, or at the Hospital during the hours of attendance.

THE QUEEN'S UNIVERSITY IN IRELAND—QUEEN'S COLLEGE, BELFAST, FACULTY OF MEDICINE.

The Lectures will commence on Tuesday, November 1. Anatomy and Physiology, Dr. P. Redfern. Chemistry, Dr. Thomas Andrews. Practice of Medicine, Dr. James Cuming. Practice of Surgery, Dr. A. Gordon. Materia Medica, Dr. J. S. Reid. Midwifery, Dr. R. F. Dill. Medical Jurisprudence, Dr. J. F. Hodges. Natural Philosophy, Dr. Everett. Zoology and Botany, Dr. Wyville Thomson. The Demonstrations in Anatomy are delivered by Dr. Charles. The Courses of Botany and Practical Chemistry, and a second Course of Experimental Physics will commence in May.

Fees.—Anatomy and Physiology—First Course, £3; each subsequent Course, £2. Anatomical Demonstrations and Practical Anatomy—each Course, £3. Practical Chemistry, £3. Other Medical Lectures—First Course, £2; each subsequent Course, £1.

Two Medical Scholarships are awarded to the Students of each year of the Medical Course. The Examinations commence on October 20.

Belfast General Hospital.—Clinical Instruction—Perpetual Fee, payable in one sum, of £10 10s., or in two instalments of £5 5s. each on entering for the first and second years. Hospital Fee, half a guinea each Session. Four Resident Pupils are appointed each Session.

Belfast Lying-in Hospital.—Fee for the Session, £3 3s.

QUEEN'S COLLEGE, CORK.—FACULTY OF MEDICINE.—Session 1870-71.

Anatomy, Physiology, and Practical Anatomy, Dr. J. H. Corbett. Practice of Medicine, Dr. C. O'Connor. Practice of Surgery, Dr. W. Tanner. Materia Medica, Dr. P. O'Leary. Midwifery, Dr. J. R. Harvey. Natural Philosophy, Mr. John England. Chemistry and Practical Chemistry, Dr. J. Blyth. Zoology and Botany, Dr. J. R. Greene. Clinical Medicine and Clinical Surgery, at the North and South Infirmaries, by the Physicians and Surgeons of these Institutions. Clinical Midwifery, at the Lying-in Hospital. The Medical Session will be opened on Wednesday, November 2, 1870, and the Lectures will commence on the same day.

Eight Scholarships, value £25 each, are awarded to Students of Medicine.

For further information apply to Mr. Robert John Kenny, Registrar.

QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

Anatomy and Physiology, and Practical Anatomy, Dr. Cleland. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Brown. Materia Medica and Medical Jurisprudence, Mr. S. M'Coy. Midwifery and Diseases of Women and Children, Dr. R. Doherty. Chemistry, Dr. T. H. Rowney. Natural Philosophy, Dr. A. H. Curtis. Botany and Zoology, Dr. A. G. Melville. Logic and Mental Philosophy, Dr. T. W. Moffett. The County Galway Infirmary, Town, and Union Hospitals are in the immediate vicinity of the Queen's College. They are visited every morning by Professors of the College, who deliver Clinical Lectures.

Eight Scholarships of the value of £25 each, and Exhibitions varying in value from £10 to £18, are appropriated to Students pursuing the Course for the Degree of M.D.

Fees.—Anatomy and Physiology, £3, first Session; afterwards, £2. Practical Anatomy, £3; Practical Chemistry, £3; Operative Surgery, £3; other Classes, £1 for each Course extending over one Term only—£2 for each Course extending over more than one Term—and £1 for each reattendance on the same. The College Session is divided into three Terms. The first Term commences on October 19, 1870, and ends on December 23, 1870.

For further information, apply to the Registrar, W. Lupton, M.A.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—SCHOOL OF SURGERY.—Session 1870-71.

The public Lectures and the usual Winter Course will commence on November 1. Anatomy and Physiology, Dr. Mapother. Descriptive Anatomy, Dr. Bevan and Mr. Morgan. Surgery, Mr. Hargrave and Dr. J. S. Hughes. Practice of Medicine, Dr. Benson. Chemistry, Dr. Barker. Materia Medica, Dr. Macnamara. Midwifery, Dr. Sawyer. Medical Jurisprudence, Dr. Davy. Practical Chemistry, Dr. Barker. Botany, Dr. Minchin. Hygiene, Dr. Cameron. Dissections, under the direction of the Professors of Anatomy and the Demonstrators, Drs. Croly, Stoney, S. Hewitt, Stoker, Kelley, and Ormsby, commence on October 4.

The Summer Session commences in April and terminates in July, including Materia Medica, Medical Jurisprudence, Botany, Practical Chemistry, Midwifery, and Hygiene.

The fee for each of the above Courses is £3 3s., except Comparative Anatomy, which is free. Practical Instruction in Operative Surgery is given by the Professors of Surgery, separate from the Surgical Lectures. Fee, £5 5s.

For further information application to be made to the Registrar, John Brennan, Esq., at the College.

DR. STEEVENS' HOSPITAL, DUBLIN,

Contains 250 beds, with distinct Wards for Fever, Syphilis, Diseases of the Eye, and Diseases of Females. There is also in connexion with the Hospital a Maternity Department, and an extensive Dispensary for out-patients. Systematic Courses of Lectures are delivered during the Winter and Summer Sessions on all subjects required by the Colleges, Halls, and the Public Service. Students enjoy the advantages of a Reading-room, Museum, and Lending Library. There is accommodation in the Hospital for two Medical and six Surgical Resident Pupils as Dressers. Fee, £21, including Hospital Certificate. Special Private Classes are held for the preparation of Gentlemen for the Licensing Bodies and Competitive Examinations. Senior Middle and Junior Exhibitions will be awarded at the end of the Session to those whose answering exhibits general proficiency in every branch of their Professional studies. There will also be Prizes for the best reports of Cases which have occurred in the Hospital during the Session. Two Midwifery Assistants are each year (month of November) selected by Competitive Examination, salary £30 per annum. The Dissecting Rooms will be opened on October 1 for Practical Anatomy. The Lecturers and Demonstrators attend throughout the day. The Sessional Courses of Lectures will commence on the 1st Monday in November. Fees—Hospital, £7 7s.; Lectures, £3 3s. each Course; Perpetual to all Educational Courses required by Colleges, Halls, and Public Service, 75 guineas, payable in two instalments.

Further particulars on application to Dr. Bookey, Resident Surgeon, at the Hospital; or to E. Hamilton, M.D., Secretary, 120, Stephen's-green.

THE ADELAIDE HOSPITAL, PETER-STREET, DUBLIN.

Consulting Physicians, Professor Law and Dr. J. F. Duncan. Physicians, Dr. Head and Dr. James Little. Surgeons, Messrs. Walsh, Barton, and Richardson. Obstetric Physician, Dr. Atthill. Ophthalmic Surgeon, Mr. H. Rosborough Swanzy. Assistant-Physician, Dr. Walter G. Smith. Assistant-Surgeon, Mr. Montgomery A. Ward.

The position of this Hospital renders it convenient to gentlemen attending the University, College of Surgeons, or

Ledwich School. The arrangements for Clinical Teaching have been made as complete as possible. There are Fever Wards apart from the Hospital, and two Wards for Infants and Children. Clinical Instruction is given in the Diseases peculiar to Women, the Diseases of the Eye, and Cutaneous Diseases. Two Resident Pupils are selected half-yearly. Prize Examinations are held at the termination of the Session.

Further particulars can be obtained from Dr. Little, 24, Lower Baggot-street, or any other member of the Medical Staff.

CARMICHAEL (FORMERLY RICHMOND HOSPITAL) SCHOOL OF MEDICINE.

The Winter Courses of Lectures commence in November:—Theory and Practice of Surgery and Operative Surgery, Mr. W. Stokes; Theory and Practice of Medicine, Dr. Gordon; Anatomy and Physiology, Mr. Curran and Dr. Purser; Anatomy, Descriptive, Practical, and Surgical, Dr. Corley and Mr. Mayne; Chemistry, Theoretical and Practical, Dr. Campbell; Midwifery and Diseases of Women and Children, Dr. Jennings. Dissections, which commence in October, are superintended by Messrs. Curran, Corley, Purser, Shaw, Madden, Mayne, and Clarke.

Carmichael Premiums.—Premiums to the value of £60, on the foundation of the late Richard Carmichael, Esq., and the "Mayne" Scholarship, value £15, are awarded at the termination of the Session.

Summer Session.—Lecturers: Botany, Dr. Blakely; Materia Medica and Pharmacy, Dr. Frazer; Medical Jurisprudence, Dr. O'Reilly; Practical Chemistry, Dr. Campbell.

Fees.—The fee for each Course of Lectures delivered at this School is £3 3s.

LEDWICH SCHOOL OF ANATOMY, MEDICINE, AND SURGERY, PETER STREET, DUBLIN.

Founded 1810.

Anatomy, Physiology, and Pathology, etc., Mr. E. Ledwich and Mr. T. P. Mason. Theory and Practice of Surgery, Messrs. Wharton and Barton. Surgical and Descriptive Anatomy, Demonstrations and Dissections, Messrs. Bright, Glanville, Kilgarriff, Robinson, and O'Leary. Theory and Practice of Medicine, Drs. Little and Eames. Midwifery and Diseases of Women and Children, Dr. J. Ringland. Materia Medica and Therapeutics, Dr. M'Dowell. Forensic Medicine and Hygiene, Dr. R. Travers. Theory of Chemistry, Practical Chemistry, and Natural Philosophy, Dr. Cameron. Botany, Dr. Mounsell.

A Course of Operations to be performed by the Students, under the superintendence of the Lecturers (subjects, etc., included), £5 5s.

Certificates of attendance on these Lectures are received by Trinity College, Dublin, and all the Examining Boards.

The Fee for each of the above Courses will be £3 3s.

Further information may be obtained from any of the Lecturers, or from Edward Ledwich, Secretary, 7, Harcourt-street, Dublin.

CITY OF DUBLIN HOSPITAL.

Physicians: J. Hawtrey Benson, M.B.T.C.D.; S. M. Hewitt, L.K.Q.C.P.I. Surgeons: William Hargrave, M.D., F.R.C.S.; Jolliffe Tuffnell, F.R.C.S.; H. G. Croly, F.R.C.S.; John M. Purser, M.B.T.C.D. Ophthalmic and Aural Surgeon, Loftie Stoney, M.D., F.R.C.S. Consulting-Physicians, Professor Apjohn, Charles Benson, M.D., and Thomas E. Beattie, M.D. Clinical Lectures will be delivered by the Physicians and Surgeons, and Special Courses on Diseases of the Eye and Ear will be given by Dr. Stoney. The certificates of attendance are received as qualifications by all the Colleges, Halls, and Boards. For further particulars, apply to Dr. Benson, 42, Fitzwilliam-square West, or to Dr. Hewitt, 25, York-street.

London School of Dental Surgery and Dental Hospital of London, 32, Soho-square, W.—The Winter Session will commence on Friday, October 1. Mechanical Dentistry, Mr. R. Hepburn; Metallurgy, Mr. G. H. Makins; Dental Surgery and Pathology, Mr. Cartwright; Dental Anatomy and Physiology, Mr. Ibbetson. Surgeons to the Hospital—Messrs. Fox, Underwood, Gregson, Coleman, Rogers, and Hepburn. Assistant-Surgeons—Messrs. Moon, Medwin, Harding, Lane, Bartlett, and Hill. Dental House-Surgeon—Mr. Milward Harding. Treasurer—Mr. Cartwright.

DAYS AND HOURS OF INTRODUCTORY LECTURES

TO BE DELIVERED AT THE DIFFERENT MEDICAL SCHOOLS.

IN THE METROPOLIS.

	Days and hours, p.m.	
St. Bartholomew's Hospital and Medical School	Oct. 3,	No Introductory Lecture announced.
Charing-cross Hospital and Medical Coll.	„ 3, 8	Mr. Hancock.
St. George's Hospital Medical School ...	„ 3, 2	Mr. Brodhurst.
Guy's Hospital Medical School	„ 1, 2	Mr. C. Bader.
King's College Medical Department ...	„ 3, 3	Prof. Wood.
London Hospital Medical College ...	„ 3, 4	Dr. H. G. Sutton.
St. Mary's Hospital Medical School ...	„ 1, 3	Mr. Gascoyen.
Middlesex Hospital Medical School ...	„ 3, 3	Dr. Cayley.
St. Thomas's Hospital Medical College...	„ 1, 2	Dr. Gervis.
University College, Faculty of Medicine	„ 3, 3	Mr. Berkeley Hill.
Westminster Hospital Medical School...	„ 3, 8	Dr. Sturges.

IN THE PROVINCES.

	Days and hours, p.m.	
Leeds School of Medicine...	„ 3, 12	Mr. E. Atkinson.
Liverpool Royal Infirmary School of Medicine	„ 3, 3	Dr. J. C. Brown.
Manchester Royal School of Medicine ...	„ 3, 12	Mr. L. H. Grindon.
Newcastle-upon-Tyne Coll. of Medicine	„ 3, 2	Dr. T. C. Nesham.
Sheffield School of Medicine	„ 1, 4	Rev. J. L. Short.

The Winter Session of the Bristol Medical School will commence on October 3, and the Queen's College Medical School, Birmingham, on October 1.

TABLE OF FEES CHARGED IN THE MEDICAL SCHOOLS OF ENGLAND

FOR ALL LECTURES AND HOSPITAL PRACTICE REQUIRED FOR THE LICENTIATE EXAMINATIONS OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE LONDON SOCIETY OF APOTHECARIES, AND FOR THE MEMBERSHIP EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

London.	£	s.	d.
St. Bartholomew's (in three half-yearly instalments of £31 10s., £31 10s., and £36 15s.)	99	15	0
Charing-cross (in three yearly instalments of £36 15s., £31 10s., and £14 14s., in the case of Matriculated Students a deduction of 8 per cent.)	82	19	0
St. George's Hospital (in yearly instalments of £42, £42, and £10 10s.	94	10	0
Guy's Hospital (in three yearly instalments of £40, £40, and £10)	90	0	0
King's College (in one sum)	100	0	0
„ (in instalments of £52 10s., £42, and £10 10s.) ...	105	0	0
London Hospital (in two instalments of £44 2s. each)	88	4	0
St. Mary's (in one sum)	84	4	0
„ (in instalments by arrangement with the Dean) ...	89	5	0
Middlesex, unlimited (or in yearly instalments of £35, £35, and £20, and £10 each succeeding year	90	0	0
St. Thomas's (in yearly instalments of £40, £40, and £10) ...	90	0	0
University College (payable in yearly instalments of £54 6s., £33 12s., and £7 7s.)	95	5	0
Westminster (in one sum)	70	0	0
„ (in yearly instalments of £35, £30, and £10) ...	75	0	0
The Provinces.			
Birmingham—Queen's College and Hospital	81	0	0
Birmingham—Queen's College and General Hospital	84	0	0
Bristol Medical School and Bristol Royal Infirmary	103	15	0
Bristol Medical School and Bristol General Hospital	92	10	0
Leeds Medical School and Infirmary (in two yearly instalments)	86	2	0
Liverpool Royal Infirmary School (Lectures only)...	42	0	0
Liverpool Royal Infirmary School and Northern Hospital ...	68	5	0
Manchester Medical School and Infirmary	84	0	0
Newcastle School and Infirmary (in one payment)...	64	1	0
Sheffield Medical School and Infirmary	76	15	0

TABLE OF FEES CHARGED IN THE MEDICAL SCHOOLS OF ENGLAND

FOR THE LECTURES AND SURGICAL PRACTICE REQUIRED BY CANDIDATES FOR THE DIPLOMA IN DENTAL SURGERY OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

	£	s.	d.
St. Bartholomew's (the "General Subjects required") payable in two half-yearly instalments of £26 5s. each	52	10	0
St. George's Hospital and School (not including Prac. Chem.) ...	45	0	0
King's College (in one sum)	67	0	0
„ (in two yearly instalments of £50 and £20 7s.) ...	70	7	0
St. Mary's	52	10	0
Middlesex (in two yearly instalments of £26 5s. and £15 15s.) ...	42	0	0
Westminster Hospital (in yearly instalments of £20 and £10) ...	30	0	0

HOSPITALS, ETC., FOR SPECIAL INSTRUCTION.

At Downing College, Cambridge, every alternate year an election to a Fellowship takes place, the holder of which must be engaged in the active pursuit of the studies of Law or Medicine. These Fellowships are of the annual value of £200, and are tenable for twelve years. They are not vacated by marriage, and the Fellows are not required to reside. The next election will take place in October, 1871. Foundation Scholarships of £50 per annum (in some cases with rooms and commons) are offered annually for distinction in natural science, tenable until the B.A. Degree, and in case of special merit for three years longer. Minor Scholarships of £40 per annum, tenable for two years, are offered each year for competition before entrance, and in awarding one or more of these considerable weight is given to proficiency in natural science.

Queen's College, Liverpool.—The Session will commence on Monday, October 4. The College is in connexion with the University of London, and its classes comprise the subject required for the Matriculation, B.A., B.Sc., and Preliminary Scientific M.B. examinations of that University. Instruction in Practical Chemistry is given in the College Laboratory by Professor Hamilton. Provincial Examinations of the London University are held at Queen's College. Fees: Separate classes, £2 2s. to £4 4s. per Session; Practical Chemistry, £5 5s.; course students, £20 per Session.

City of London Hospital for Diseases of the Chest, Victoria-park.—Office, 24, Finsbury-circus, E.C.—Physicians—T. B. Peacock, M.D., J. R. Bennett, M.D., E. L. Birkett, M.D., S. H. Ward, M.D., J. Andrew, M.D. Consulting Surgeon—J. Hilton, F.R.S. Assistant-Physicians—J. C. Thorowgood, M.D., H. G. Sutton, M.B., A. B. Shepherd, M.B. Junior Assistant-Physicians—C. Bäumler, M.D., W. Rickards, M.D., F. B. Nunneley, M.D. Resident Medical Officer—Mr. W. H. Power. The Hospital affords accommodation for 120 in-patients. During the last year 741 cases were under treatment in the wards, and 13,905 were relieved as out-patients. In-patients admitted since the wards were opened in 1855, 6950; out-patients admitted since the establishment of the Institution in 1848, 180,000. Information respecting Medical instruction at the Hospital may be obtained on application to the Physicians.

The Hospital for Sick Children, 48 and 49, Great Ormond-street, W.C., and Cromwell House, Highgate.—Physicians—Dr. West and Dr. Dickinson. Assistant-Physicians—Dr. Samuel Gee, Dr. W. B. Cheadle, Dr. J. J. Phillips, Dr. J. F. Payne, and Dr. F. B. Nunneley. Surgeon—Mr. Thomas Smith. Assistant-Surgeons—Mr. F. Howard Marsh, Mr. J. W. Haward. Surgeon-Dentist—Mr. Thos. Edgelow. 127 beds. In-patients—1869, 710. Out-patients—attending, 15,330. The practice of the Hospital, in both In- and Out-patient Departments, is open at nine every morning. Fee for Six Months' attendance, £3 3s.; perpetual, £5 5s. Samuel Whitford, Secretary.

National Hospital for the Paralysed and Epileptic, 23 and 24, Queen-square, Bloomsbury.—The Hospital contains 60 beds. The Physicians attend every Monday, Tuesday, Wednesday, and Friday. Physicians—Drs. Ramskill, Radcliffe, Hughlings-Jackson, and Buzzard. Assistant-Physician—Dr. Charlton Bastian. Medical Superintendent—Dr. Tibbits. Medical Registrar—W. R. Gowers, M.B. Medical Practitioners and Students will be admitted on showing their cards.

Great Northern Hospital, Caledonian-road.—Consulting Surgeon—Mr. Skey. Physicians—Drs. Leared, Hardinge, Cholmeley, F. C. Webb, Jephson, and Crucknell. Obstetric Physician—Dr. Gustavus C. P. Murray. Diseases of the Eye—Mr. E. C. Hulme. Surgeons—Messrs. Gay, W. Adams, T. Carr Jackson, Buxton Shillitoe, W. Spencer Watson, and Osman Vincent. Aural Surgeon—Mr. Harvey. Dentists—Messrs. Statham and Chas. J. Fox. Chloroformist—Mr. Coles. House-Surgeon—Mr. Julian Willis. Apothecary—Mr. Cowen.

Queen Charlotte's Lying-in Hospital, Marylebone-road.—Instituted 1752. Rebuilt 1856. Consulting Physician—Dr. Owen Rees. Consulting Surgeon—Henry Lee, Esq. Medical Officers for the In-patients—Dr. Blakely Brown, Dr. Hope. Medical Officers for Out-patients—J. Cholmondeley, Esq., Dr. Hope. Secretary—Mr. A. S. Boodle, who attends at the Hospital on Monday from ten to two. Pupils are admitted to reside and board in the Hospital (after having been examined by the Physicians) for periods of not less than six weeks. Terms on application at the Hospital.

Royal Orthopædic Hospital, 315, Oxford-street.—Medical Officers. Surgeons—R. W. Tamplin, Esq., F.R.C.S., 33, Old Burlington-street, Wm. Adams, Esq., F.R.C.S., 5, Henrietta-street, Cavendish-square. Assistant-Surgeons—Bernard E. Brodhurst, Esq., F.R.C.S., 20, Grosvenor-street, Jno. D. Hill, Esq., F.R.C.S., 17, Guildford-street, Russell-square. Apothecary—H. L. Sequeira, Esq., M.R.C.S., L.A.C., 1, Jewry-street. Legally qualified Practitioners are free to witness the practice of the Hospital. Pupils on the following terms:—For six months, £3 3s; for twelve months, £5 5s.; perpetual, £10 10s. Operations, Thursdays, 2 p.m. The Annual Course of Lectures will be duly announced.

St. Luke's Hospital for Lunatics, Old-street, E.C.—Physicians—Dr. Henry Monro and Dr. William Wood. Surgeon—Mr. Alfred Willett. Resident Medical Superintendent—Reginald Eager, M.R.C.S., L.A.S., and M.D. Univ. Lond. The Visiting Physicians are allowed by the Committee to take pupils. For information address the Secretary, Rev. T. H. Cole, M.A.

South Staffordshire General Hospital, Wolverhampton.—One year's attendance recognised by Examining Boards. Pupils resident and non-resident. Fees for Hospital Practice—One year, Ten Guineas; perpetual, Twenty Guineas. Physicians—Dr. Millington and Dr. Miller. Surgeons—Mr. Vincent Jackson, Mr. J. O'Brien Kough, Mr. C. A. Newnham. House-Surgeon—Mr. H. L. Snow. Physicians' Assistant—Dr. A. Bottle. Operations are performed in the Theatre every Thursday morning, at 11 o'clock. The fees must be paid to Mr. W. T. Grant, Secretary to the Hospital, from whom, or from the Medical Officers, any further information may be obtained.

Norfolk and Norwich Hospital.—150 beds. One year's attendance recognised by Examining Boards. Fees: For the Physicians' Practice, £10 10s.; for the Surgeons' Practice—one year, £20; two years, £30; perpetual £40. Pupils, resident and non-resident. Physicians—Dr. Copeman, Dr. Eade, Dr. Bateman. Surgeons—Mr. Nichols, Mr. Firth, Mr. Cadge. Resident Medical Officer—Dr. Beverley. Assistant-Surgeons—Mr. Crosse, Mr. Williams.

EDUCATIONAL VACCINATING STATIONS.

In order to provide for the granting of those special certificates of proficiency in vaccination which, under the regulations of the Privy Council, are required to be part of the Medical qualification for entering into contracts for the performance of public vaccination, or for acting as deputy to a contractor, the following arrangements are made:—

1. The vaccinating stations enumerated in the subjoined list are open, under conditions appointed by the Privy Council, for the purposes of teaching and examination.

2. The public vaccinators officiating at the stations are authorised by the Privy Council to give the required certificates of proficiency in vaccination to persons whom they have sufficiently instructed therein; and

3. The public vaccinators, whose names in the subjoined list are printed in italic letters, are also authorised to give such Certificates, after satisfactory examination, to persons whom they have not themselves instructed.

London.—Principal Station, Surrey Chapel, Blackfriars-road: *Mr. James Furness Morson*, who attends on Tuesday and Thursday, at 1 p.m. North-west Station, 7, Grove-place, Lisson-grove: Mr. James George Gerrans, on Monday, at 2 p.m. West Station, 9, St. George's-road, Pimlico, S.W.: Dr. Edward Lowe Webb, on Monday, at 10 a.m. East Station, 1, Well-street, Wellclose-square: Mr. William Jones Lewis, on Tuesday, at 10 a.m. North Station, Tottenham-court Chapel, Tottenham-court-road: Mr. William Edwin Grindley Pearse, on Monday and Wednesday, at 1 p.m. South-west Station, 2, Regent-place, Horseferry-road: Mr. William Edwin Grindley Pearse, on Tuesday, at 2 p.m. Strand Station, Charing-cross Hospital: Mr. Robert William Dunn, on Monday, at 10 a.m.

Birmingham.—The School-rooms, 27, Old Meeting-street, on Monday; the rooms occupied by the Working Men's Mutual Improvement Society, in Barr-street, on Tuesday; St. Mark's School-rooms, St. Mark's-street, on Wednesday; and the Islington Assembly-rooms, 42, Broad-street, on Thursday: *Dr. Edmund Robinson*, at 11 o'clock on the days before-mentioned.

Bristol.—The Public Vaccination Station, Peter-street: *Dr. Henry A. P. Robertson*, on Wednesday, at 10 a.m.

Exeter.—Odd Fellows' Hall, Bamfyld-street: *Mr. Charles H. Roper*, on Thursday, at 3 p.m.

Leeds.—23, Burmantofts-street: *Mr. Frederick Holmes*, on Tuesday, at 3 p.m.

Liverpool.—4, Oldham-street: *Mr. Arthur Browne Steele*, on Thursday, at 2 p.m.

Manchester.—159, Rochdale-road: *Mr. Ellis Southern Guest*, on Monday, at 2 p.m.

Newcastle-on-Tyne.—11, Pilgrim-street: *Mr. George Cuthbert Gilchrist*, on Tuesday, at 2 p.m.

Edinburgh.—The Royal Dispensary: *Dr. William Husband*, on Wednesday and Saturday, at 12.

Glasgow.—The Hall of the Faculty of Physicians and Surgeons: *Dr. James Dunlop*, on Monday, at 12. The Royal Infirmary: Dr. Robert Dunlop Taunahill, on Monday and Thursday, at 12.

PRIVATE TEACHERS IN LONDON.

Dr. Barron, Class-rooms, Millikin's Chambers, 12, Southwark-street, Borough, gives courses of Medical and Surgical tuition adapted to Students for Professional Examination.

Dr. Coales, M.A., 119, Gower-street, W.C., prepares Candidates for the B.A., Prelim. Sc., and Matriculation Examinations of the University of London, and for the Examinations in Arts at the Royal College of Surgeons, Apothecaries' Hall, etc.

Mr. Edward B. Goodwin (Caius College, Cambridge), 319, Camden-road, N., receives pupils, resident and otherwise, for the Preliminary Examinations at the College of Surgeons and Apothecaries' Hall, for Matriculation, etc.

Mr. Hanbury, M.A., 24, Old-square, Lincoln's-inn, W.C., reads with his Class for the Preliminary Examination in Arts, College of Surgeons, and for the Matriculation Examination of London University. Mr. Hanbury is assisted by efficient Lecturers in French and Chemistry. Resident Pupils are received.

Mr. W. T. Hunt, 34, Sutherland-place, Bayswater, W., reads with gentlemen for the various Preliminary Examinations in Arts. House Pupils are received.

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ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital.

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

Lecture V.

We have divided the elements of tissue into cellular and intercellular and tubular. Thus:—

Cellular.	Intercellular.	Tubular.
Epithelium.	Cartilage.	Muscle.
Lens.	Fibro-cartilage.	Nerve.
Hair.	Periosteum.	Capillary.
Nail.	Membrane-stroma.	
Fat cell.	Mucous tissue.	
Secreting gland cell.	Tendon-tissue.	
Blood gland cell.	Amorphous connective.	
(?) Muscle cell.	Osseous tissue.	
	Yellow elastic tissue.	

But none of these, except cartilage, are present as actual tissue; they are always mixed. They are, I may say, even almost only theoretically distinct, rather than separate things. For even the simplest tissue that we handle—as, for instance, common connective tissue, contains capillary vessels, and very often nerves. So that what we call "connective tissue" in our ordinary "practical" sense of the term we must not think to be the same as the elementary intercellular tissue which I have been speaking of. And the same with bone; any small fragment of bone contains not only the osseous tissue, but capillary vessels, and perhaps even nerves, with some connective tissue.

Now, each of these elements that combine to make the simplest of tangible tissues has its own proper liabilities and tendencies to disease; and one way in which we may make a general study of textural disease would be by learning what are the peculiar liabilities of each of these textural elements, so that on knowing what are the elements present in the textures of any organ, we might anticipate what diseases the organ would be liable to.

I believe that the study of analytical pathology on this plan would lead to the best results, and would end in the setting of this division of pathology in the position of a complete natural science. To know the pathological habits of each texture-element, and so to follow our knowledge of the components of a tissue with a derived knowledge of the diseases that such components must introduce into the tissue, will give method and order to our knowledge, which at present it very much needs.

For our own present purpose it will be useful to consider the behaviour under irritations which characterise, respectively, the three several groups of elements we have before us.

As to the three groups of elements, we observed these facts of either group respectively:—1st. That the *cellular* elements function by producing so much of a certain sort of material within the cells; and that they appear to be perpetuated by a repeated production of the cells, each of which forms so much of the required matter—so that, in short, for their function *multiplication* is necessary. 2nd. On the other hand, the *intercellular* elements function by the permanent qualities of the intercellular matter. Their cells generally join together by communicating branches, and it is difficult to suppose that the perpetuation of the tissue is effected by the perishing and reproduction of elements thus united into established systems. Quite otherwise; they appear to remain in the shape they first take in their development; and thus we may shortly say that their function is done not by multiplication but by *maintenance*. 3rd. On the third part, the tubular elements have a function in a more proper sense, since they discharge some active office of a dynamic kind, exercising certain influences over the others—influences of what we may call a higher kind, because it is due to them that the parts of the body are made to act together as one organism.

Now, let us observe that the elements of the first group, which I have called *cellular*, show in their irritative diseases the same governing tendency to multiplication which characterises their history in their natural state.

In the case of epithelial cells, a very little irritation induces an over-rapid production of them, as we may easily convince ourselves by following the processes of a common catarrh. If this be watched in the case of a surface that is covered with squamous epithelium—such as the vagina—it is seen that under catarrhal irritation the epithelium cells loosen and fall off, and are succeeded by others which are not perfectly formed, and do not retain their hold on the surface, but slip away in the mucus, producing the common leucorrhœa. The same fact is more familiarly known in the case of the excess of epithelium from the bladder and pelvis of the kidney, which comes off in some forms of Bright's disease through irritation produced by the morbid state of the urine—an irritation which you know is evinced post-mortem in acute and subacute albuminuria by the ecchymotic patches that are seen in the pelvis of such kidneys, and sometimes in the bladder. Again, in the intestine we often find, along with a bright-red blush of injection of the mucous surface, a layer of opaque, whitish mucus, which we might take for pus, but on examining it we find that it contains only or chiefly the cylindrical cells of the epithelium, which are not at all, or scarcely at all, altered in form. This constitutes a very common appearance, and shows moderate catarrh of the bowel. You find this in most cases of acute pneumonia, in heart disease, and in the other conditions usually described, such as cold or local irritation.

Just in proportion as the inflammatory irritation is severe, do we find the multiplication of these epithelial elements to be rapid. And as their production is rapid, so it becomes, if I may so speak, careless; they lose the form which is natural to the epithelium of the part, and become mere globular cells, and are then called "mucus cells" or "mucus corpuscles;" and if the irritation be severe, they assume the small size and regular spherical shape of "pus cells." This process any of us can watch in his own Schneiderian membrane if he will turn to such good account a common cold in the head.

Many observations have been published (by Rindfleisch and others) to show that these pus cells arise within the epithelial cells, and are then set free from these. I have seen corpuscles within the cylindrical ciliated cells of the trachea with the characters of mucus cells, in cases of bronchitis; but I did not find them in sufficient numbers to convince me that the mucus cells all arise in that way by "endogenous" development from the epithelial cells. One circumstance, which Virchow mentions, gives an indirect support to this view of their origin, and this is the fact that mucous membranes which have only a single layer of epithelial cells produce pus with difficulty and sparingly, while epithelial coverings composed of several layers of cells—such as the lining of the trachea—produce pus very freely. Where most epithelial cells are, most pus is formed.

The disposition to increased multiplication which cellular elements of tissue show under slight irritations is very well seen in the desquamations of cuticle which follow some exanthematous diseases—as scarlatina. In this case there is no increase at all, nor any perceptible change of the intercellular or tubular elements that make up the true skin. The corium is unaltered. It is the epithelium only that shows multiplication of elements and their detachment. Yet both seem alike to share in the early blush that we know as the rash. When this quick multiplication of elements occurs on a free surface, its effects are comparatively unimportant, because the products are able to escape, and when the irritation has passed off, healthy cells are reproduced—the restoration is complete.

But when this multiplication or proliferation of epithelial cells occurs in glandular tissues, then very serious results are prone to arise, because the narrowness of the tubes or follicles of the glands prevents the free escape of the excess of epithelial cells, and a choked and stifled state is apt to arise, which is in two ways bad; *firstly*, because the gland cannot void its natural secretion, supposing that it should resume its healthy function; and *secondly*, because there is no way out of the difficulty if the choking of the tubes has reached a certain pass of severity. It follows that this misfortune must happen most readily where the glandular tubes are long and their course is winding. The kidney presents these conditions in an extreme degree. Such changes in the kidney—namely, a multiplication of the epithelial elements, so that they choke the tubes, and obstruct the flow of secretion through them—make that common form of Bright's albuminuria disease which Dr. Johnson has called desquamative nephritis, and Dr. Dickinson calls, more recently, tubal nephritis, and which the College of Physicians calls acute Bright's disease, and, in its later stage, fatty kidney. I don't like changes of name, but I think as all observers agree to think the essential change to be in the epithelium, "epithelial nephritis" would better describe its nature. Observe that in this disease, though all regard it as inflammatory, there is no production of pus. In some cases the

epithelial cells which are cast off are very ill-formed, and become like mucus-corpuscles. But pus is never formed in right's disease.

In the long tubular glands of the stomach the same changes occur. In obstinate chronic gastric catarrh, the choking of the tubes with ill-formed cells is the most significant change observable. In either of these cases—that of the *kidney* or that of the *stomach*—the prolonged duration of the choked and embarrassed state of the tubes at last leads to a failure of their vitality, and the epithelium wastes and the tube shrivels, and so the damage becomes irremediable. Such a wasting of gland tissues, as a consequence of chronic "inflammation," is known also to occur in other cases, as in the bronchial and tracheal mucous membrane, while in the acuter processes the glands of this membrane, as you know, are swollen up with increase of their cellular contents, producing that granular appearance of the mucous membrane which helps us to recognise acute bronchitis in the post-mortem room. Indeed, the same course as we recognise in the case of epithelial nephritis—*i. e.*, first, proliferation of epithelium, with choking, and afterwards wasting of the tubes, appears to take place very generally in all the secreting glandular tissues. In chronic inflammation of gland-bearing membranes, you meet with—first, a swelling of the glands, and afterwards, if the disease becomes chronic (that is, probably, if the choked glands do not free themselves from the morbid excess of their epithelial elements), you meet with a wasting away of the glands. How much of the obstinacy of chronic bronchitis is due to such a destruction of the means of naturally moistening the membrane? The proposition I am following out is this: That the cellular elements of tissue are very prone in their active diseases to the same multiplication which makes their natural function.

If now we turn from the secreting glands to the *blood glands*, we find the pathological processes in these show the same general truth very strikingly. They are very prone to simple multiplications of their elements. They give us the best examples of true hypertrophy that we can find in the body. You are aware that very little is generally known of their functions; some of them, as the pituitary gland and the thyroid, are mere matters of form in our physiology. In other instances we get, if I may so speak, a little patch of circumstantial evidence that gives us a keen view of some influence they plainly exert; but it is very partial, as in the case of the supra-renal capsule, where all we know is that it in some way appears to control the formation of pigment in the skin—for when the capsules are destroyed, pigment is deposited in the natural situation in great excess, and also considerably in unnatural situations; but we know no more about their use than this, unless that in some way further they are so important that when they perish in a certain way by scrofulous caseous degeneration, a gradual loss of power of the most remarkable kind destroys the sufferer. Then, in the case of the spleen, its supposed functions may be many enough. Thus, it may act as a venous reservoir, or a sinking fund for nutrition—the blood occupied in its idle time for good purpose in making corpuscles—or it may keep down a plethoric overgrowth of blood-corpuscles by breaking them up when redundant, and returning their elements to the circulation; but the greatest patch of light thrown on its function is the increase of white cells in the blood, that occurs in cases of great hypertrophy of the spleen, so that it appears to generate white blood cells. In both these cases of spleen and supra-renal bodies, it is pathology rather than physiology that has thrown such light as there is upon the functions of the respective organs. Physiologically, the group of blood glands stands in the dark; but, pathologically, the rapid multiplication of their cell elements is most remarkable in their active diseases.

Thus, the lymphatic glands will swell quickly to an enormous size, from inflammatory irritations brought to them by a lymph stream coming from an inflamed part; and this swelling, if the irritation is moderate, is a simple example of numerical hypertrophy without change of character in the the cellular elements. The glands behind the bronchi in this way swell up in common pneumonia to a large size, and their pressure must not be left out of account in estimating the several evil conditions that make up the danger of the disease. But they do not suppurate; the enlargement is caused by a mere multiplication of the cells, without evident change of character.

But irritations much lower in degree than those conveyed to the bronchial glands in pneumonia will produce the same kind of enlargement. Thus, after every meal the mesenteric glands swell, and their gland products become more numerous, and pass on in the chyle stream, and so to the blood, where they produce a leucocytosis and a little fever; and, again, the lymphatic glands of the pelvis become enlarged greatly during pregnancy, while they receive the extra supply of lymph from the gravid uterus; and they, too, discharge a great number of white corpuscles into the blood, so that in the later months of pregnancy such a number of these are present that Virchow guards against the assumption of pyæmia from their detection.

When we are thinking of lymphatic glands, we nowadays associate with them several structures as equivalent to them in nature and probable use. These are the closed follicles of the root of the tongue and of the tonsils, the solitary and agminate or Peyerian glands of the intestines, and the Malpighian bodies of the spleen.

The remarkable degree of enlargement which will occur in these glands is very well known to you. In *common cynanche* or in *scarlatina* the tonsils and follicles of the tongue swell very much. This swelling is partly due to retained secretion within the passages of the tonsil, but it is chiefly made up of increased numbers of the cellular elements that compose the structure of the follicular sacs of the organs. Again, in *enteric fever* we know what a very surprising swelling of Peyer's and the solitary follicles occurs, producing the so-called *medullary infiltration* of them. If the substance of these swollen Peyer's patches be examined, it is found to be composed of the same substance as the normal patch, the cellular elements being exceedingly increased in number. This is also the case with the greatly enlarged mesenteric glands that are found in enteric fever. The tissue of these, if sections be made after hardening in chromic acid, will be found to consist of the natural substance apparently unaltered. What has occurred is a vast increase in the numbers of its cells. In the same disease a like increase of the spleen occurs, and this is classed by Virchow along with the hyperplasiæ of the patches and glands; but, as far as I have seen, it does not especially affect the Malpighian corpuscles, which he makes out to be the special equivalents of lymphatic glands; but rather it is a general swelling of all the splenic substance, such as occurs in typhus, and generally in severe fevers.

Leaving these acuter processes, we find that not only the lymphatic glands, and the closed glands resembling them, which we have just considered, but also all the other blood glands, thymus, thyroid, supra-renal, and pituitary bodies are singularly liable to chronic hypertrophic swellings. I have seen the *thymus*, weighing 2 ounces, in a man, aged 32, who died of purpura, with general enlargement of the lymphatic glands and of the spleen. Such enlargement of the thymus is rare, and it is not always associated with diseased states, but it has been seen in leukæmia. Everyone is acquainted with the supposition of Dr. Hugh Ley, which ascribes infantile laryngeal spasm to enlarged thymus.

The *thyroid body*, as the seat of the so-called "goître" or struma, is, perhaps, of all the organs, the most subject to simple hypertrophy. In the two cases of exophthalmic goître that we have recently had under inspection, the change in the enlarged gland was in either case a simple multiplication of its cellular elements; only in one of them was there a small unimportant cyst in the lower lobe of the gland. In other recorded cases this has been generally true, though frequently cysts, or fibrous or other tumours, have complicated the condition. Then, in endemic struma or goître the state of the gland may be described almost in the same terms; for the most part it is simply hypertrophied. Sometimes, indeed, a large part of its bulk is made up of cysts, or gelatinous collections, or fibrous tissue, or even bone—or at least very hard bone-like formations. But there is nearly always a large part of the tumour composed of true thyroid tissue.

Again, the pituitary body shows the same tendency to enlargement, though in lesser degree. The gland grows redder and larger, and stretches the layer of dura mater that holds it in its place. It is interesting to note that in some of these enlarged pituitary bodies some of the same gelatinous matter as we meet with in the thyroid is sometimes found. This is a curious confirmation of the impression which microscopic examination gives us of an identity of structure in these two bodies, which, indeed, arise (according to Remak, Kolliker, &c.) by buds from the pharyngeal mucous membranes. Another point of interest in reference to the growths of the pituitary gland is its liability to have small accessory glands near its root. This makes a curious resemblance to the accessory spleens and accessory supra-renal capsules, which I have mentioned before.

The *supra-renal capsule* itself is certainly not often the seat of a general hypertrophy of the kind. Many cases of a cystic disease of it, resembling cystic goître in a way, have been recorded. I have met twice with comparatively large simple

hypertrophic tumours in the supra-renal capsule, in the form of rounded growths in the tissue of the organ; one such preparation of old date is in the museum.

The *spleen*, as you well know, undergoes enormous hypertrophy; it will weigh, they say, as much as twenty pounds in leukæmia. The largest I have seen was twelve pounds in weight. It is very remarkable that the substance of these enormous spleens appears to be perfectly healthy.

As to fat, which I have called a cellular element of tissue, I think this is at best doubtfully right. Certainly, one can find in mucous tumours very often all transitions from the mucous tissue's stellate corpuscle to the fat cell, and observers who have traced the development of the tegumentary fat say it arises from the mucous tissue that is found in the place of that at early periods of development. Fat certainly appears to undergo rapid increase and decrease in quantity, according to states of nutrition. But microscopic evidence goes to show that these changes in its quantity are not due to the origin or subsidence of fat cells, but rather to the increase or diminution of the quantity of oil that is contained in them. Thus, in cases where there appears to be no fat, or next to none, in the tegument, the microscope shows still present the fat cells, but their contents are reduced to be of a watery kind, with more or fewer fat grains suspended in it.

It appears that fat forms, when intercellular tissues are in circumstances of extra-nutrition, cartilage cells with almost the form of fat cells. So we see that the cellular elements of tissue are very liable to take with them into the tissues that they go to form a great proneness to multiplication and increase of their quantity under irritations—and this through an augmentation of the reproductive nutrition which is natural to them.

Now, we may further observe that the hypertrophic increase which is thus created is generally of a transient character, corresponding to the temporary duration of the several cellular elements. If the normal nutrition of these cells includes their decay and reproduction, and if their active disease is an overactivity of this their normal nutrition, so as to obtain its characters from their normal nutrition, then we should expect to find the overgrowth that so arises to be short-lived, so that at least, when the cause of the augmentation is removed, the part returns to its normal volume through the natural death of its several supernumerary elements.

And this you will indeed observe to be the case. I need scarcely give you instances of the very rapid return to their natural state which you see in swollen glands or spleen when the cause of the swelling is of a temporary kind. You might point out many apparent exceptions to this general statement—for instance, the scrofulous gland or the leukæmic spleen. But, in the first example—that of scrofulous gland—the restoration of the gland, if it be not speedy, is made impossible by the death of its structure in the so-called caseous metamorphosis and pseudo-suppuration of the gland, by which the whole tissue with its vessels perishes; and so, perforce, no longer any normal vital changes can further take place.

In the case of leukæmic spleen we are dealing with a far more wide-spread and general disease than, till recently, was thought Not only is the blood charged to great excess with white cells, but the liver shows the same change, often to a remarkable extent. I have found it weighing $7\frac{1}{2}$ lbs., and containing in the tissue, about the minute portal veins, enormous numbers of what look like white blood cells, but massed together, and apparently more than that, organised into a tissue which is seen by the naked eye as a small white grain. In the kidney there is the same appearance: and also, in some cases, this white, soft tissue is found in leukæmia in very great quantity in the submucous tissue of the alimentary canal, producing there a soft medullary growth, which behaves itself in all ways like cancer, malignantly invading the neighbouring tissues. These circumstances go to show that it is not enough to regard leukæmia as a mere overaction of the white blood cell-forming power of the spleen. I have suggested that it rather represents the malignant overgrowth—that is, infectious overgrowth—of the white cells of the blood itself, and, indeed, is cancer of the blood in a true sense. At any rate, in a disease of this general and formidable kind, we would not expect the enlarged spleen to subside. A cancerous action, we see, is apt soon to reveal itself in leukæmia.

But, as a striking instance of the extreme rapidity with which a long-standing hypertrophy of cellular elements may disappear, take the case of endemic goître when treated with iodine. The accounts given of the action of the iodine are very surprising. The goître melts away. So rapid is its disappearance, that advantage has been taken of it to explain an obscure point in the therapeutic history of iodine—I mean the so-called "iodism." You know that we frequently use iodine in large doses, and find that, instead of depressing the patients and throwing them into a low, febrile, cachectic state, with wasting of breasts or testes, as it used to be supposed to do, it rather acts as a tonic, and, after a long course of it, the patient professes himself better in every way. Yet, formerly, very evil effects were ascribed to iodine, and it is suggested that the bad effects were really due to the enormous quantity of disintegrating thyroid tissue which was absorbed from the goître into the circulation, as it was disappearing under the influence of the iodine.

We can observe one other general truth concerning the relations of these cellular elements of tissue, in regard to the multiplication by which their activities are simply discharged or increased or diminished. We have found that they readily increase under slight irritations, and that they readily fall away again on the removal of these irritations, and generally, indeed, that the hypertrophies which their overgrowth produces are very capable of rapid subsidence. Next we shall see that they are also very susceptible of atrophy. It is to cellular elements of tissue we look for the best evidences of atrophy. In the case of the epithelial elements, this is very easily observed, in cachectic states, and in old age. The scarf-skin, instead of the smooth, soft, supple, fleshy pliancy it shows in youth and health, becomes thin and shiny, and wrinkles, and looks dusky and "skinny." The epithelial cells waste and dry, and their reproduction is imperfect. To this cause is owing a great part of the physiognomy of cachexia and of age. Take as an example the case of syphilitic infants, and observe the condition of their skin, hair, and nails.

Atrophies of secreting glands are also common—you cannot name a secreting gland that is not very often found wasted. The testes, ovaries, mammæ, liver, and pancreas are very frequently found to have undergone atrophy. You will observe, if you take any of these atrophied glands, that the wasting is not due to a disappearance of the fibrous elements. They remain as before. It is the cellular part whose nutrition has failed, and hence the wasted gland looks fibrous, and is tougher than the healthy gland. In this way, the liver may dwindle to the weight of nineteen or twenty-one ounces instead of fifty-eight or sixty, while it is in no other way diseased, and preserves very nearly the healthy appearance of its tissue on section. Such passive wasting of the liver kills by obstruction of the portal vein, and consequent ascites.

In the case of the blood glands, we meet important atrophies from the cessation of their reproductive nutrition. One of the most interesting is that of the thymus, which, long ago, by Engel, was noticed to be wasted away in infants who died of atrophy. The connexion between the good condition of the thymus, and the plumpness and healthy nourishment of very young animals, is well established; and though we meet our common difficulty of distinguishing between cause and effect in the inquiry, yet the balance of evidence turns toward proving that the thymus prepares a kind of milk for home consumption, and that failure of its function tends to starve the infant. A suppuration of the thymus is described by Dubois as a cause of very early death in syphilitic infants. I have seen a puriform liquid in the thymus in such cases, but could not declare it to be pus, the natural whitish-creamy liquid of the thymus is so like ordinary pus in its appearance. Dubois, however, warns against, and appears to have avoided, such an error.

All the blood glands waste away in age—both those that correspond to the lymphatic glands and those that correspond to the thyroid. We can easily convince ourselves of this in the case of the tonsils, of Peyer's patches, and of the lymphatic glands: all these glands shrivel in old age. The spleen, too, does so to a remarkable extent, so that a very old person's spleen comes to weigh not more than an ounce. If you observe the section of such a spleen, you will find it mostly composed of the fibrous trabeculæ of the organ, the cellular elements being those which have disappeared. Likewise, the supra-renal capsules and the thyroid waste in old age, though to a less extent.

Poor-law Medical Officers' Association.—At the Council meeting, held September 6, 1870, it was moved by Dr. Dixon, seconded by Dr. Pinder, and carried unanimously—"That Dr. Dudfield's resignation be accepted with great regret, and that the best thanks of the Council be tendered to him for the able and willing services which he has at all times rendered to the Association, and also for the invariable kindness which characterised the discharge of his duties as Honorary Secretary for the past four years."

LECTURES ON DERMATOLOGY.

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Lecture V.

(*Continued from page* 262.)

Another form of nutritive disease of the skin is a degeneration of tissue accompanied with the production of a yellow colouring matter in the affected part; the yellow colour being due as far as we know at present to "a deposit of oil in the substance of the cutis," and taking place most abundantly in the neighbourhood of the follicles. This curious affection was described and delineated by Rayer under the name of "plaques jaunes des paupières," in consequence of its usual occurrence in the eyelids; subsequently a relation was shown to exist by Addison and Gull, between this disorder and a form of disease of the liver attended with jaundice; and more recently this relation has been confirmed by Dr. Hilton Fagge, and Dr. Frank-Smith; while a more exact determination of the inquiry has been effected by the researches of Dr. Murchison. From its appearance as a spot or spots, the name of vitiligoidea was given to it by Addison and Gull; I have, however, ventured to propose for it another term—namely, xanthelasma or yellow lamina, as expressive of its colour and its more frequent development in the form of a lamina of moderate thickness. But it has also been found elsewhere than in the eyelids; for example, as tubercular prominences upon different parts of the skin; on the arms for instance, on the hands, and indeed, among the subcutaneous textures. Hence, a term so constructed as to convey the idea of a tumour-like mass seems desirable, and the word *xanthoma* fulfils very adequately this intention.

Sometimes instead of yellow tubercles developed in the skin, we meet with small masses of a deep brown or black colour; and to an affection so constituted we give the name of *melanoma*. The pathological structure is probably similar to that of the tubercles of xanthoma; but the colouring matter, instead of being oil-globules, is a black or melanic pigment.

Amongst the component parts of the skin that are liable to hypertrophy, there is none of more importance or of greater interest than its bloodvessels. Sometimes the capillaries increase in size and become more numerous than natural without prominence; this is the state which we term simple *angiectasia* or *teleiangiectasia;* and sometimes the growth of new vessels proceeds to such an extent as to form tumours of various size *angioma* or *angiomata*. In certain instances the angeiektasia is simply arterial; at other times it extends from the capillaries to the veins, in which case the term *phlebektasia* more correctly expresses the pathological condition of the part. And the vascular hypertrophy is sometimes congenital and sometimes acquired or accidental. In this form of hypertrophy the vascular structure takes the place of all the other tissues of the skin, and when the angeioma is cured either spontaneously or by art, it leaves behind it a relaxed and atrophic condition of the integument.

Of the accidental angeiomata we meet, not unfrequently, on the face of young persons, with a kind which is termed *nævus araneus* from a comparison in figure to a spider. The body of the spider is constituted by a dilatation of a minute artery, and from it there radiate in several directions small veins which are supposed to resemble the legs of the animal. In general, these radiating veins are independent of each other, but sometimes they are more or less intimately united by an intervening vascular plexus. In elderly persons, and in a kakotrophic state of the skin, there is frequently seen another form of accidental nævus; it is hemispherical in shape and resembles a drop of blood effused beneath the cuticle. But more careful examination shows it to be a bunch of small vessels with thin coats, and largely dilated. To these small angeiomata I have assigned the name of *nævus sanguineus*, their chief characteristic being their colour, and their chief interest their association with an impoverished and ill-nourished skin.

VII. Aberrations affecting the Epithelium.

14. Epidermic Affections.—There is an aphorism of Cabanis which is well known to us all:—"*Pour connaitre l'homme malade, il faut connaitre l'homme sain.*" It is unnecessary for me to press the truth of this axiom, and simply sufficient that I should point for its application to the subject at present under our examination—namely, *the diseases of the epithelium of the skin.* The epithelium of the skin, or, more exactly, the epidermis, offers for our consideration three principal features—its horny layer, the nails which are a part of the horny layer, and the rete mucosum with its especial function, the formation of the colouring matter or pigment of the skin. And out of this division of the epidermis we obtain three groups of diseases, which I will now proceed to examine—namely, epidermic affections, onychopathic or ungual affections, chromatopathic or pigmentary affections. In a critical inquiry into the epidermic affections of the skin we should naturally cast an eye upon the rough and broken state of the epidermis which accompanies dermatoxerasia, ichthyosis, sauriosis, lepra, vesiculæ, pustulæ, and desquamation in general. But there is only one morbid state of the epidermis at present known which deserves to be considered as a special affection of the epithelial tissue. That morbid state is an altered nutrition of the epidermis consequent on a low form of inflammation, and its marked operation on the epidermis is to bring about an alteration of structure. In its normal state the epidermis is composed of cells, and the cells are composed of minute globular granules possessing a certain size and a certain consistency, and the destiny of these granules is to be converted into the horny element of cuticle. But the altered nutrition of the epidermis already alluded to arrests the completion of this developmental process; the cells retain their albuminous character, they augment in bulk, they take on a proliferating action like that of mucus or pus; some retain their original figure, others grow into elongated shafts and throw off buds and branches; in a word, the elements of the epidermis have undergone degeneration from their normal animal type, and have fallen into a state which may be termed *granular degeneration*. If we examine the spot where the morbid transformation has taken place the cuticle is no longer visible, it is gone; it is not pushed aside by the new formation, for then we should see its relics, but it is metamorphosed into the new formation.

However, the most interesting phenomenon of this process is that the epidermic granules in their new character so closely resemble in appearance and behaviour minute plants of the class of fungi, that the term *phyton* has been applied to them; the diseases in question have been termed *nosophyta*, and the botanists who claim these granular elements as real plants have assigned to them a place in their classification, and have given to them a variety of names—for example, one is termed *achorion*, another *microsporon*, and a third *trichophyton*. The believers in this vegetable doctrine admit of no question as to the vegetable nature of the degeneration just referred to; they go to the length of calling the diseases in which they are found "*parasitic diseases*," and accredit the diseases with an origin, not in the individual affected, but in the external world. With them the granules are spores or seeds, and these spores floating in the atmosphere and attaching themselves to the skin of man are the presumed cause of the diseases to which they belong, while the disease itself is the simple vegetation of the so-called plant.

That the granular degeneration of the epidermis assumes the appearance of a plant-like or phytiform growth, and in this respect puts on a pathological form different from other diseases of the skin, there can be no question; and I have therefore assigned to the group of diseases included under this head the generic term *phytosis*. And the members of the genus phytosis are—*phytosis tonsurans*, or common ringworm; *phytosis favosa*, or favus; *phytosis circinata*, a ringworm of the hairless skin, and *phytosis versicolor*. These diseases are consequently four in number, while the number of fungi declared to be distinct are only three—the trichophyton, or hairplant, so named from being found in the shaft of the hair as well as in the epithelium of the follicles, is the pathological cause of phytosis tonsurans and circinata; the achorion is the fungus of phytosis favosa, and the microsporon of phytosis versicolor, the pityriasis versicolor of Willan.

These affections all agree in the two conditions to which I alluded on opening the subject; in all there is inflammation of the derma; in all there is perverted nutrition and alteration of the epidermis; but beyond these two conditions a strict analogy is wanting between them, phytosis or tinea tonsurans is contagious among children, but is not communicable to the adult, or if it appear in the adult it would show itself in the form of phytosis circinata. But phytosis versicolor is not contagious under any circumstances whatever. The sensitive organisms of children assembled together in schools and under bad hygienic conditions, are known to be active in taking up a variety of morbid states with which they are brought in contact. Hence, contagion among children is no proof that the agent of contagion is a sporule or a seed, or that the disease itself is the

mere propagation of a mouldy condition of one individual to the integument of another. Again, the principle of therapeutics which is directed against this supposed parasitic disease, is of the most barbarous character; where the trichophyton is concerned, the whole of the hairs of the affected part and for some distance around are to be plucked out, and when this barbarous act has been completed, the denuded surface is to be saturated with a solution of corrosive sublimate; the remedy, and corresponding remedies, *pro hâc vice*, being designated by the name of "parasiticides."

We have pretty clear evidence that the morbid alteration of the epidermis now described begins in the epithelium of the follicles, and extends by degrees into the adjacent rete mucosum; and it is to be presumed that a similar morbid change may be met with occasionally in other forms of disease in which the follicles are especially concerned. This presumption has been verified by the discovery of a similar phytiform metamorphosis of the epithelium of the follicles in some cases of sykosis; and more recently in that remarkable form of leichen which has been denominated ekzema or leichen marginatum, and is popularly known as the Burmese or Indian ringworm.

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE EFFECTS OF THE HYDRATE OF CHLORAL WHEN EXHIBITED IN A CONTINUOUS MANNER IN ACUTE AND CHRONIC DISORDERS.

By WILLIAM STRANGE, M.D.,
Physician to the General Hospital, Worcester.

"The great hit of the season," as the hydrate of chloral has been called, goes on increasing in favour with all sections of our Profession. From small beginnings, dating from the publication of Liebreich's pamphlet, it has, in something under twelve months, made its fame resound throughout Europe with remarkable unanimity of applause. Every one of the journals of these three kingdoms has teemed with cases in which its virtues are fervently lauded, whilst, a very unusual circumstance, none are found to depreciate its value as a therapeutic agent, or deny the great benefits which its discovery and recent promulgation have conferred upon the suffering portion of humanity. Indeed, this remarkable salt has more than fulfilled all that its sponsors led us to expect from it; and if disappointment has been expressed in some few quarters, it has had its origin in those exaggerated expectations which some minds always form on the introduction of any new remedy; and, in this respect, chloral has not proved an exception to the rule.

Liebreich, whose sagacity originated the induction that chloral, from its chemical composition and reaction, would be found to operate physiologically in a manner similar to its congener, chloroform, never anticipated other effects from it than such as are producible by chloroform. It was, indeed, a "stroke of genius," which threw off the fine induction that if chloral did form chloroform in the system in consequence of its decomposition by means of the salts of the blood, its physiological effects upon the organs must be the same as those of chloroform, only modified by the more or less slow diffusion which this mode of formation would necessitate. Most of the followers of the Berlin Professor have arrived at the very same conclusion as to the *modus operandi* of chloral as he himself did; and experiments upon animals, in which the action of the drug could be pushed to its fullest extent, have proved the soundness of Liebreich's original theory. For these reasons Liebreich never proposed the chloral as a sure anodyne in painful affections. As a hypnotic, it operates as an anodyne so far as it produces sleep; consequently, when it has failed to produce sleep, it has generally also failed to allay severe pain. Hence its failure to conquer the anguish of the severer neuralgias. But herein there is nothing for which we can blame this agent; chloroform is known to fail in exactly the same manner. If chloral, introduced into the blood, be there decomposed, and chloroform produced in a slow and continuous manner, we shall certainly have the agency of chloroform exerted upon the organs in the same slow and continuous manner; but we must not expect the same results as when chloroform is thrown into the system in a rapid manner and in large quantity. And although the quantity of chloroform ultimately produced will depend upon the dose of chloral given, yet, as the quantity of the alkalies of the blood which it can reach at any given time is but small, no safe dose of the chloral is likely to give us the same phenomena as those which we view as the effects of the introduction of a large dose of vapour of chloroform. Hence I have never seen true anæsthesia produced by any dose which I have thought it safe to administer. On the other hand, hyperæsthesia, except as a temporary phenomenon, is quite exceptional.

I have administered the hydrate of chloral, during the last nine months, in over eighty cases—at first, only as an occasional hypnotic; but latterly with other and more permanent objects. Its use as an occasional sedative and sleep-compeller is now admitted on all hands. For this reason I shall restrict myself in this communication to the result of my experience of the drug when given for some length of time and in a continuous manner.

If we had been disposed to entertain fears as to the beneficial operation of chloral in any of the various morbid conditions calling for the use of hypnotics, we might naturally have concluded, looking at its physiological action, that it would have been in disorders of the brain and central nervous system that those fears would have had a reasonable foundation. Diseases of the heart, with venous obstruction or congestion, again, might have been doubtful. Yet it is in these very disorders, so distressing in their character, from the persistency of their symptoms, and the restlessness, anxiety, and want of sleep by which they are mostly accompanied, that we so much want the effects which chloral has been found to produce in other and simpler cases. Sedative action without narcotism, hypnotism without tendency to coma, and both of these without disturbance of the digestion or check to the secretions: these are what chloral was already found capable of giving us; and it therefore seemed of the highest importance to examine into its operation in disorders of those centres upon which its influence is said by Liebreich and Richardson to be expended —namely, the cerebral hemispheres, medulla oblongata, and spinalis, and the nerves and ganglia of the heart. Encouraged by the excellent effects which the hydrate had already given me in what may be called minor cases, I was anxious to test it thoroughly in such cases of severe disorder of the nervous system and of the heart, in which a prolonged use of a sedative would be needful, as might present themselves in practice.

I have selected from my notes of many cases the following, partly because they are interesting in other respects than their bearing under the chloral, and partly because they comported themselves so well under its influence. From them the reader may judge whether, in the hydrate of chloral, we have not the very agent we are in search of, as answering to the requirements which I have just enumerated; whether, in fact, we have not a drug quite as certain in its sedative, and more so in its hypnotic, effects as opium, and, withal, more speedy in operation, whilst it is more manageable and entirely free from the after effects which the exhibition of opium for any length of time, in the great majority of cases, produces. Going carefully at first, and feeling one's way, as it were, almost in the dark, with this new (and powerful) agent, it is pleasant to arrive at last at the comforting and satisfactory assurance that in almost every case of this kind, whether characterised by excess of nervous mobility, cerebral excitement, spasm, convulsion, or insomnia, or by palpitation and dyspnœa, the sedative action of chloral may be secured with tolerable certainty, unaccompanied by any drawback whatever. And this satisfaction has been gained from not having expected too much from the chloral, for where this has been the case disappointment has naturally been felt. Chloral, as I have already observed, is in no true sense of the word an anodyne, except in so far as pain is removed whilst sleep is present. Therefore, in affections whose objective symptoms consist chiefly of pain, as the neuralgias, and also the pain caused by pressure of morbid growths, etc., chloral can do no more than procure the easement of sleep. The patient returns, on awaking, to pretty much the same state as that he was in when the chloral was given. Nevertheless, the sleep produced by its use, unalloyed with any drawback in the shape of nausea and headache, is an important item in the means of their cure. We know that opium, in any of its forms, is very nearly tabooed in most of the organic diseases of the heart, from its tendency to lock up the secretions and excretions; it is also of doubtful use in congestive excitement of the brain, and in that enfeebled condition of the nervous substance which betrays its existence in chorea, hysteria, epilepsy, and allied disorders; and in delirium tremens it is only in exceptional cases that we see our way to the profitable employment of opiates. Now in all of these the hydrate of chloral has been used with the best

effects, some of which will appear from perusal of the following cases :—

Affections of the Nervous System.

Case 1.—*Congestion of Brain from Solar Heat.*

A young lady, aged 24, whilst on a visit to Ireland, after exposure to intense solar heat, had active congestion of the brain and its meninges, characterised by severe pain and heat at vertex, hot burning skin, quick pulse, vomiting, and total insomnia. These symptoms were treated by an Irish Physician, by means of leeching, shaving, and blistering the scalp, mercurials, etc., with abatement of the urgent symptoms. The insomnia, however, remained, with total loss of appetite, and much depression. The muscular weakness was extreme. I recommended, from a distance, that the chloral should be tried, but it was not approved of by the gentleman in charge of the case, who had had no experience of the drug. It was attempted to subdue the sleeplessness, etc., by means of opiates, which failed entirely, their only effect being to derange the digestive organs still more. On the patient coming under my charge, the chloral was given at once, with the best effects. The pulse ranged at this time between 110 and 120, feeble, sharp, and quick. There was still heat at the vertex, although the skin had become cool and the tongue clean. She had also that quickness and sharpness of both the mental and physical motions characteristic of this affection, and no sleep. Twenty-five grains of the hydrate were given at bedtime, with the effect of producing a good night from the very first dose. When the chloral was omitted, that night was invariably a sleepless one. It was therefore continued for some time, and although the excitability did not give way at once, the pulse remaining sharp, at from 110 to 118, the appetite grew ravenous, the digestion being correspondingly rapid; the tongue remained clean all the time, whilst under the morphia it had been foul, and the appetite *nil*. Small doses of quinine with the bromide of potassium were now added, and the patient rapidly progressed to a good recovery.

Case 2.—*Concussion of Spine in a Railway Carriage.*

A tradesman, aged about 35, travelled from Rugby to London in a train which does not stop during the whole of that distance. From some defect in the coupling or the springs of the carriage, the passengers in it were shook and tossed to-and-fro, so that they were unable to retain their seats, and some of them stood the whole way to town, holding on by straps or woodwork to support themselves. This shaking up was followed in my patient within a few hours by partial insensibility and loss of memory, and, after a few days, with feverishness, numbness, and tenderness in the lower extremities, thickness of speech, inability to find the right word, and other symptoms of partial paralysis. He was quite incapacitated for business, and there was complete insomnia. He obtained some relief by a visit to the sea-side and rest, but at the end of six weeks, when I first saw him, all the above symptoms were present in some degree, and he complained bitterly of the want of sleep. Ordered half a drachm of the hydrate of chloral every night, with bromide of potassium three times a day. The chloral at once gave him good nights, and the two sedatives combined restored him to himself in about ten days.

Case 3.—*Melancholia with Delusions—Insomnia.*

A young lady, about 30 years of age, took the hydrate of chloral for several nights in succession for the sleeplessness which frequently accompanies similar cases, other remedies being used to restore the functions of the liver and skin, which were defective. The chloral only procured interrupted sleep during its use; but after it was discontinued, healthy sleep became the rule, in place of the previous insomnia. I have witnessed this good effect of the hydrate in other cases.

Case 4.—*Inveterate Pains of a Neuralgic Character.*

A middle-aged person, much harrassed by a large business, had suffered for the last two or three years from neuralgia of the nerves of the trunk and extremities, frequently changing its seat—the pain, when present, being intolerable. After exhausting almost all remedies but the right one—*i.e.*, temporary relinquishment of business—he learnt the use of the hypodermic injection of morphia, and it was his habit to have recourse to it whenever the pain became severe, sometimes several times a day. This relieved, but never cured, his pains. He was, at the time I saw him, anæmic, dyspeptic, feeble, restless, and sleepless. With some difficulty I persuaded him to give up the use of the morphia, and to take the hydrate of chloral at bed-time. He missed the soothing effect of the morphia greatly at first, but he was induced to persevere, and has not now had recourse to it for several months. The chloral, after a few trials, gave him better rest and sleep, which enabled him to battle with his pains by day without having to fly to the morphia. It was persevered in, and, with suitable remedies applied to the enfeebled digestive organs, chiefly small doses of strychnia, he soon conquered his dyspepsia. He has regained blood and flesh, and now does very well without either the chloral or the morphia. The principal credit I claim for the chloral in this case is that it enabled the patient to conquer the dangerous habit of imbibing morphia for every attack of pain, and so gave the system a chance of righting itself, which it could not have had whilst opiates were used in any form, as in this individual they were never well tolerated.

Case 5.—*Tumour, presumed, at the Base of the Brain.*

A young lady, aged 24, had suffered for about eighteen months from the following symptoms :—Constant pain referred to the back of the head and nape of the neck; partial and variable paralysis of the right arm and leg; great dysphagia, liquids being forcibly rejected through the mouth and nose; speech thick, with hebetude of intellect and drowsiness, and yet almost constant insomnia. These symptoms had supervened soon after a somewhat unhappy marriage. I gave the chloral in half-drachm doses for a few nights, but it failed to secure any good sleep, and, fearing some ill effect upon the medulla oblongata, it was given up. No ill effect, however, appeared to follow its temporary use.

To subdue the pain and sleeplessness arising from the application of a blister, I constantly order a full dose of chloral to be taken from two to three hours after its application. The patients have invariably passed good nights, and awoke with the vesication completed. Faceache from decaying teeth, or from abscess of the gums, has also yielded to the sleep-compelling influence of the hydrate.

Case 6.—*Obstinate Chorea.*

A young girl, aged 17, the subject of long standing and obstinate bilateral chorea, had been treated during many weeks of the present spring with the usual remedies—tonics, etc.—without much effect. She was not anæmic, but thin and haggard from the constant jactitation and loss of sleep. Placed under my usual treatment—*i.e.*, a liberal allowance of wine added to good diet—the chorea still resisted, and the girl became very much reduced. Sleeplessness was a marked feature of her case from the beginning. At first the chloral was given in half-drachm doses at night, with the effect of procuring some sleep, but with no abatement of the choreal movements by day. I now resolved to try the effect of keeping the girl under the continual influence of the chloral. She was ordered to take eight grains three or four times a day. This was afterwards increased to eight grains every four hours throughout the day and night. This treatment was continued for nine days, by which time all choreal movements had entirely ceased. The girl was excessively drowsy and languid all through the day, but ate well, and the digestive functions were not interfered with. After a little quinine and iron to recruit her strength, this girl left the house quite restored.

I have now to relate two or three cases of affections of the heart, which are interesting from the unexpected good results which were obtained from the exhibition of the chloral.

(To be continued.)

PARACENTESIS IN SYNOVITIS OF THE KNEE-JOINT.

By J. FAYRER, M.D., C.S.L., F.R.S.E.

Professor of Surgery, and Senior Surgeon, Medical College Hospital, Calcutta.

In the *Indian Medical Gazette* of June 1, 1869, I published some cases of synovitis of the knee-joint treated by this method with satisfactory results. By these it was shown that with care in excluding air, carefully closing the puncture, and securing rest for the joint after the operation, not only may speedy relief be obtained, but with little danger of exciting fresh inflammation, even when the disease is of a subacute character.

The following case confirms this, and shows that the removal of the fluid may have satisfactory results, and that the relief obtained may be permanent. I believe that in the most acute cases it might be practised with advantage and great relief, though in so important a joint as that of the knee the risk would be considerable.

D. R., aged 24, a Bengalli peasant, was admitted January 30, 1870, with the right knee-joint distended with fluid, the result of chronic synovitis, which he traces to an attack of gonorrhœal rheumatism, three and a half years ago. He

appeared to have had an abscess on the inner side of the thigh, just above the knee-joint, for there was an open sinus which burrowed under the integuments. The limb was flexed and painful, and so weak that he was unable to walk. The fluid was drawn off through a delicate canula, the joint having been punctured on the inner aspect on May 31. About six ounces of straw-coloured fluid were evacuated with immediate relief, and the puncture was hermetically sealed with gutta percha dissolved in chloroform. Before introducing the trocar and canula the integument was drawn aside to make the opening valvular. Not the least constitutional disturbance followed. He had no inconvenience beyond slight pain for a day or two. There was no return of the swelling; the fluid was not again secreted. After the puncture had healed simple strapping was applied, and potas. iodid. was given internally. He has gradually improved since; the thickening of the tissues is subsiding, and he walks with ease and can flex and extend the joint without pain.

There could be no doubt of the benefit in this case. He came into Hospital on January 30, and was under treatment for four months without receiving any material benefit until May 31, when the joint was tapped. He is now, July 30, quite well. The swelling and hydrops articuli have disappeared, and the weakened limb is rapidly regaining strength with exercise.

Calcutta, August 1.

ON TREATMENT FOR FRACTURES OF THE LOWER END OF RADIUS.

By JOHN RAND, F.R.C.S. (Exam.)

A FEW years since, Dr. Gordon, of Belfast, devised a splint for fractures of the lower end of the radius—hitherto often unmanageable, and to the Surgeon credit-detracting. Its principle and mode of application were very clearly defined and powerfully advocated by Mr. Lawson Tait in a paper published in the *Medical Times and Gazette*, dated Feb. 17, 1866, in which he maintained that, not only in this, but in other fractures, splints should be regarded as dermal skeletons, rather than applied with deference to the influence we suppose certain muscles to possess on certain fractures; and he furnishes cases proving incontestably the correctness in practice of his principles; yet, strange to say, our authorities seem still content to teach and to practice the old method of squeezing the natural curve of the radius between two straight boards, and then, according to the fancy of the individual Surgeon, dragging the wrist into some unnatural position—as by pistol-shaped splints, or other strange devices—their warrant for so doing being the assumed action of certain muscles. And that with such treatment union takes place with, as a rule, fairly good results, no one can gainsay; but that the wrist ever resumes its original contour, and in too many cases its former freedom of motion, is, I fear, more than doubtful.

Not being at all satisfied with the result of cases treated by me, and by me seen treated by these time-honoured methods, I resolved to adopt the Gordon splint, and in a very bad unimpacted fracture found it maintained the natural curve of the radius, and prevented the permanent prominence of the styloid process of the ulnar so common in these fractures, but it failed to obviate the subsequent temporary stiffness. The main objection to this splint seems to be its clumsiness and the discomfort produced by the unyielding pressure of the wooden radial pad, whilst cases accompanied by much swelling are, I think, better supported, for a few days at least, by the anterior splint being continued to the metacarpo-phalangeal joint, which Dr. Gordon's splint does not admit of.

In the last four cases I have met with in practice, I have modified the treatment by simply padding the palmar splint (composed of a piece of flat ¼-inch deal) with spongio-piline, so arranged that the radial edge of the sponge, when rolled upon itself, forms a pad of such proportions as will fill up the natural concavity of the anterior surface of the radius, applying a counter straight splint extending to the wrist-joint, and placing the arm in the semi-prone position. At the end of a week or ten days about four inches of the splint supporting the hand may be removed, thus permitting the moderate flexion of the joint; and, at the end of three weeks, the dorsal splint may often be removed with advantage, and some lighter support substituted for the anterior splint as soon as practicable.

Some Surgeons still maintain the old practice of placing the limb in the supine posture, on the ground that the radius is thus placed at a greater distance from the ulnar. This is true; but, measuring a number of specimens, the difference between the supine and semi-prone varies from but two to three lines, whilst the superior comfort of the semi-prone position is so great, and the risk of approximation of the bones—with common care—so small, that the plan should not, I think, be ever entertained; it may also be noted that the convex border of the radius looks outwards and backwards in semi-pronation, directly backwards in supination; hence, in the former position, the back splint cannot press so injuriously on the natural curve, whilst a correspondingly smaller pad is required in front than would be needed in supination.

In all the preparations I have found in Hospital museums, and in that of the Royal College of Surgeons, of united fractures of the radius, the upper fragment is at an obtuse angle with the lower, this apparently depending not so much on displacement of the lower fragment with impaction as on the pressure produced by the dorsal splint on convexity of the radius, pushing its proximal end too far forwards. This is especially manifest in fractures of the lower part of middle third. Here the common result of two straight splints appears to be that the curved radius is transformed into a nearly straight one, or with a prominence looking forwards strongly suggestive of the treatment that has been adopted.

Dulwich.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

COMPOUND FRACTURE OF TIBIA—AMPUTATION ON TENTH DAY, PYÆMIC SYMPTOMS HAVING SET IN—RECOVERY.

(Under the care of Mr. DE MORGAN.)

H. E., AGED 31, a railway porter, was admitted April 14, 1870, having fallen whilst moving a heavy wheel (about 18 cwt.), which over-balanced him and fell upon his leg, crushing it. On admission there was found, about the middle of the left leg, a wound three inches in length, through which about two inches of the upper fragment of the broken tibia, denuded of periosteum, projected. There was some hæmorrhage from the wound, but the posterior tibial artery was intact. The wound was on the inner side of the leg, over the inner surface of the tibia, and away from the anterior tibial artery. The foot was warm, and with good sensibility. On extension, the upper fragment could not be replaced, even under chloroform, and Mr. De Morgan was forced to saw off about three-quarters of an inch of bone before the fragments could be brought into position. The limb was then placed on a back splint, the wound covered with lint, and liq. fer. perchlor. applied to stay the bleeding.

Two days later there was general swelling of the limb, with great tension about the seat of injury, and some fluctuation posteriorly. The tongue, too, was furred, and pulse 128. A week after the accident the leg had swollen greatly, both above and below the knee, and much pus escaped from free incisions made through the swollen parts. The man was now very low, sweating profusely, with a rapid, weak pulse and furred tongue. The incisions were repeated as the swelling increased, and the man's strength kept up by a free supply of stimulants until April 24 (ten days after the injury), when the limb was amputated above the knee by Teale's method. The wound was dressed with carbolic acid lotion, and an ounce of brandy given every hour. This allowance of brandy was continued for a week, during which time the profuse sweats continued, and the man remained in a very low condition, with temperature above 100°, and a soft, rapid pulse. The flaps also sloughed to some extent. On the eleventh day from the operation, the pyæmic symptoms continuing—*i.e.*, great prostration and sweating, but without distinct rigors—he was ordered—℞ Quiniæ sulph. gr. iii., acid sulph. dil. ♏ v., syr. aurant ʒ j., aq. ʒ j., ter in die.

From this time he began to improve. By the fifteenth day all the ligatures were away, and the sluggish wound dressed with balsam of Peru. The brandy was now knocked down to half an ounce per hour, and the temperature fell to 99°. The sweating continued, however, and at one time the old febrile symptoms returned, with cough, but they again subsided, and by July 1 he was discharged convalescent, and sent to Seaford.

WESTMINSTER HOSPITAL.

CLINICAL NOTES OF CASES.

(Under the care of Mr. F. MASON.)

We visited this Hospital on Thursday, August 18, and went round the wards with Mr. Mason, who is at present in charge of Mr. Holt's beds. Surgery is generally tolerably slack at this time of year, and it seems a merciful dispensation that it should be so, or Surgeons would themselves be lacking in the winter. We heard last month a veteran Hospital Surgeon say, in reply to the question, "Had much operating lately?" "Operations? No—much too hot for that sort of thing!" And patients seem, from one cause or another, to be of much the same opinion. Westminster seems to be no exception to the rule, and we therefore saw but little of sufficient interest to weave into our Hospital reports.

One man, by the way, deserves notice as much for his ingenuity in getting out of a scrape with flying colours as for his bungling operating skill as exercised upon himself. The fellow is a Frenchman, and, for some not very apparent cause, recently tried to commit suicide; but the pistol which he held to his forehead only injured the frontal bone, and tore open the soft parts without penetrating the skull. Now that he is nearly convalescent, and the wound all but healed, he is seized with a patriotic desire to lay himself at his country's service, and he is off to the frontier, that the scar on his forehead may in time to come be laid to the account of some Prussian sharpshooter, and so his shame be turned into glory.

Mr. Mason had operated on a young man for the cure of varicocele. The operation was the usual one of compressing the vein between a steel pin and a loop of wire under the skin, the pressure being increased by a daily tightening of the wire until the vein is cut through, and the apparatus withdrawn. The pressure is applied thus:—A long steel pin, bent near its head to a right angle, is passed across the scrotum, separating the vas deferens from the swollen vein; a wire loop is then pushed across beside the pin, but arching over the vein by means of a needle, notched near its point; the loop being passed over the point, the ends of the wire are then twisted round the bent end of the pin, so that with every twist of the pin the vein may be pressed a little more tightly. A few days are generally needed to cut through the vein, and, to judge from this man's exclamations, the daily twist is anything but an agreeable sensation.

We saw a good example of the use of Mr. Holt's self-retaining winged catheters. A man who had long suffered from old cystitis, and who said that for years he had not slept for more than half an hour at a time, was kept in bed, and one of these catheters worn constantly. The result was that directly on its being introduced the man slept for five hours straight off, and has since made rapid progress, gaining flesh and strength, while the urine is improving greatly also.

The zeal with which Mr. Holt has adopted the method of sudden forcible dilatation of the contracted urethra, as suggested many years ago in England, and largely practised by M. Perreve, of Paris, has caused so large an attendance of stricture cases in his ward that a special little closet has been fitted up at one end of the room, where catheters are passed on those convalescent from the operation. There were only two such patients at the time of our visit, but the House-Surgeon told us that there are often eight or ten attending together for this purpose.

Sulphate of iron has been very successfully employed as a disinfectant of all discharges from the patients of the Hospital, and it has been regularly put into the latrines, etc. This salt has the advantage of cheapness, as well as most undoubted efficiency. It is extensively made in some parts of China by mixing together small coal and iron pyrites, covering over the mass very securely, and allowing decomposition to take place. After the violent chemical action has ceased, the mass is broken up, dissolved in boiling water, and crystallised out in shallow vessels. It is used in various chemical processes, such as the making of the beautifully crystallised King Fen, or calomel, produced by chemical manufacturers in Hankow, but ingeniously adulterated with selenite. Diluted iodine tincture, and the ethereal preparation of iodine, have been found the best disinfectants and stimulants for unhealthy surfaces.—*Annual Report of the Hankow Medical Mission, by F. Porter Smith, M.B.*

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 17, 1870.

PROSPECTS OF POOR-LAW MEDICAL REFORM.

Some weeks ago we announced that it was the intention of Mr. Brady to introduce into the House of Commons, in the next session of Parliament, a tangible measure of Poor-law Medical reform, and that his efforts would be supported in the Upper House by a leading peer. Our readers are reminded this week, by the energetic President of the Poor-law Medical Officers' Association, Dr. Rogers, that some of them at least must have it in their power to materially assist the promoters of the coming Bill, and we would ourselves urge upon them the duty of sparing no effort that may help to give it success. Without entering on the details of Mr. Brady's promised measure, we may state that it is intended to assimilate in a considerable degree the system of Poor-law Medical relief in England and Wales to that of Ireland. The Irish dispensary system, as it is called, differs from the present English system of out-door Medical relief in the following particulars:—In Ireland all medicines are paid for by the guardians—in England, with the exception of a few metropolitan districts, all medicines are paid for by the Poor-law Medical officers. In Ireland—at least, in populous urban districts—the dispensing is performed by specially appointed and paid dispensers, who possess the Licence of the Dublin Apothecaries' Company. In England, the Poor-law Medical officer has to dispense himself, or by his assistants. In Ireland, the sick poor who are not sufficiently ill to require to be visited at home attend at a fixed time at a dispensary provided by the parochial authorities, where they are seen and prescribed for by the dispensary Medical officer. In England, the same class attend at the private surgeries or consulting-rooms of the Poor-law Doctor, often to his great annoyance and the annoyance of his private patients. In Ireland, vaccination and the registration of births and deaths is performed by the dispensary Medical officer, for each of which duties he is paid, and the result is that vaccination is probably better performed in Ireland than in any country in Europe. In 1867 there were 144,318 births registered, and 125,741 vaccinations were performed by the dispensary officers in Ireland. In 1868 there were but 23 deaths from small-pox. In England, recent legislation seems intended to make vaccination a specialty—at least in the large towns—and thus to deprive the rank and file of the Profession of a source of income; whilst the Compulsory Vaccination Act is acknowledged by its supporters not to work easily in many districts. In Ireland, the poor receiving out-door Medical relief, as well as those in the workhouse infirmaries, are constantly supervised by Medical inspectors. In

England there is no inspection whatever of the out-door sick, and, except in the metropolis, no special Medical inspection of the in-door sick. In Ireland, the dispensary Doctors make weekly returns of sickness which are of great national value. In England there is nothing of the kind, although returns of sickness are at least as important from a sanitary point of view to a community as returns of death. In Ireland, the dispensary Medical officer, although not paid enough, is paid far better than the English Poor-law officer. Their salaries are far more uniform, and on a fixed scale, independent of the parsimony or whims of guardians. In England, the average payment of the Poor-law Medical man is £19 per annum. In Ireland it is £90 per annum, and this is supplemented by payments for vaccination and registration. The difference is enormous, when it is remembered that in England the Poor-law Doctor has to find drugs and dispensing for his miserable pittance. In Ireland, the Dispensary Doctor may, in a case of doubt or difficulty, call in the aid of a Professional brother, whose fee is paid by the authorities. In England, the astonishment of a board of guardians asked to pay a consultation fee for a pauper would be a study worthy of the pencil that drew "Oliver asking for more."

Now, we are not Utopian enough to believe that either the ratepayers of England, or the House of Commons representing them, can be induced to change the one system we have sketched for the other, unless it can be proved not merely that it is to the interest of the Doctors, but that it is for their own interest so to do. As we have constantly asserted in these columns, charity and law are two utterly different things. It is the duty of the Legislature to consider the interests of the ratepayers quite as much as the necessities of the pauper, and to adopt the system by which the burdens of the former shall be reduced to the least possible amount compatible with the maintenance of the latter. The British ratepayer will not readily consent to pay a larger sum for relief of the sick pauper unless it can be proved that by so doing he diminishes the amount he must pay for the relief of the healthy. We firmly believe that this result would follow, and the statistics of Ireland afford reason for this belief. The Medical Charities Act, which established the present dispensary system in Ireland, came into force in October, 1851. Since then the death-rate of Ireland has considerably diminished, as well as the amount of sickness. In 1864 the number of deaths from zymotic diseases in Ireland was 19,064, and in 1868 they had diminished to 16,255. Fever, the scourge of Ireland, is wonderfully lessened, and small-pox has almost disappeared as a cause of death. The return, moved for in the House of Commons by Mr. W. H. Smith, of the population, mortality, and mortality from zymotic diseases in the three kingdoms during the five years, 1864 to 1868, places the hygienic condition of the three populations in remarkable contrast. The total average mortality in England and Wales during the five years was 1 in 43, in Scotland 1 in 44, in Ireland 1 in 60. In England, Wales, and Scotland the mortality from zymotic diseases was one-fourth, in Ireland it was one-fifth of the whole mortality. With these enormous differences in death-rate, the amount of poor-rate in England and Wales was 6s. 11½d. per head of the population, in Scotland 5s. 7½d. per head, but in Ireland only 2s. 11¾d. per head. Mark, however, the difference in the amount spent in Medical relief. In Ireland, with a population of 5,543,285, the expenditure for Medical relief was £131,000, or, in round numbers, one-sixth of the whole poor-rate. In England and Wales, with a population of 21,649,377, the amount spent in Medical relief was only £272,000, or, in round numbers, one twenty-seventh of the whole poor-rate. Now, we do not maintain that the whole of the enormous difference of the death-rate in Ireland and Great Britain, or the whole of the difference in the amount of zymotic disease, or the whole of the difference in the expenditure on the poor of the two islands, is due to the present system of Medical relief in Ireland. We are to make deductions for some imperfections in the registration of deaths in the sister island, and for other causes of difference which might be easily suggested. But we may fairly assert that, with the improved Medical system of late years in Ireland, the death-rate has enormously diminished, and there has been no such increase of pauperism as has appalled us in England. In a country like our own, a high death-rate implies an increase of pauperism; a low death-rate, its diminution. Widows and orphans swell parochial taxes, and we firmly believe that ninety-nine out of a hundred Englishmen, as long as they can keep sickness at bay, would rather work than brook the relieving officer or the workhouse.

It is by supporting this argument with facts that Medical men will render the greatest assistance to the promoters of the promised Bill. Let every one of our readers who has witnessed instances where unchecked sickness and preventible death have sent families to the workhouse communicate the facts of the case to Dr. Rogers, the President of the Poor-law Medical Officers' Association. It is no disparagement to the present Poor-law Medical service in England and Wales to say that it is insufficient for the work it has to perform. It is insufficient in numbers, it is insufficiently paid, and it has not the means of checking sickness at its disposal. We know that our brethren do their best at enormous sacrifices; that they perform their unthankful duty frequently with the highest self-abnegation; but we maintain that the whole system is inadequate, and its inadequacy is cruel to the patients, unjust to the Poor-law Medical officers, and ruinous to the ratepayers.

Before we conclude, we would correct one misconception. There is a notion abroad that Irish dispensary Doctors are debarred from private practice. This is an error. By far the greater number of them engage in private practice, as may be supposed when it is remembered that they form about one-half of the actively-working Medical Profession in Ireland. But the difference is this: that their remuneration—although it might reasonably be doubled—is not so utterly inadequate as to compel them to reduce their attention to their pauper patients to a minimum, in order to obtain a livelihood for themselves and families by devoting all except the remnant of their time to wealthier patients. The introduction of a system akin to that of Ireland into the Poor-law Medical service of England would not necessitate the introduction of a special class of Medical men debarred from the general practice of their Profession; neither would it necessitate a system of indiscriminate Medical relief. We would be the last to encourage the working classes of England to fly to the parish Doctor in every case of sickness. The wholesome feeling of self-respect which induces our better classes of poor to avoid parochial Medical relief as long as they can remunerate a Medical man should be still maintained. But, for our own parts, we would rather see a crowd of real poor waiting at the public dispensary to see an adequately-paid parochial Medical officer, than a number of persons, amongst whom are many who could well afford to pay for Medical advice, thronging the out-patient rooms of free Hospitals and dispensaries.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. VII.

In 1826 M. Barthez and MM. Andral and Fournet published the results of researches made by them into the physiological and therapeutical action of bromine and of the bromide of potassium.(a) They reported that bromine possessed the power of rapidly diminishing and even entirely removing the pain in joints affected by chronic arthritis, and of lessening the swelling, immobility, and deformity. M. Pourché, of Montpellier, also had found the bromide of great service in the treatment of bronchocele, and in scrofulous affections.(b) MM. Puche, Huette, and Rames attributed to this salt an anæsthetic action; and M. Thielmann, a Russian Physician,

(a) *Journal de Chim. Méd.*, etc., t. v. p. 214.
(b) *Ibid.*, t. iv. p. 594.

asserted that it exercises a marked sedative action upon the organs of generation, and that he had found it very useful in chordee, in satyriasis, and in other conditions of excitement of these organs. In 1836 it was introduced into the London Pharmacopœia in consequence of the great success that had followed its use by Dr. Williams, of St. Thomas's Hospital, in cases of enlarged spleen. It did not prove equally useful in this affection in the hands of other Practitioners, and the observations of M. Thielmann and others bore but little fruit till they fell under the notice of Sir Charles Locock, and led him to try the bromide of potassium in cases of "hysterical epilepsy." In 1857 Sir Charles stated to the Medical and Chirurgical Society that he had given the drug, in ten-grain doses, in fourteen or fifteen cases of epilepsy in which the fits seemed to be connected with menstruation, the paroxysms only occurring, except in case of great mental excitement, at the menstrual period; and that the drug had proved eminently useful, failing in one case only (*Medical Times and Gazette*, vol. i., p. 525, 1857). Since then the bromide has become a very "fashionable" medicine, and in consequence has been misused and overrated, and been credited with recoveries with which it had in reality no other relation than one of time; and, as a consequence again of this, the pendulum of opinion has in some minds swung to the opposite extreme; and there are to be found those who doubt whether the drug possesses any real remedial powers at all. There can, however, be no doubt that when "mixed with brains" it is a medicine of very real and great value.

As to its *mode of action* we can hardly yet speak with clearness and certainty. Many observers have reported on it, but their conclusions have in several cases been perplexingly contradictory. MM. Eulenburg and Guttman (*Gazette des Hôpitaux*, No. 77, 1867), report that the salt exerts a paralysing influence on the heart and central nervous system, and that reflex excitability persists after the cessation of voluntary motion. MM. Martin Damourette and Pelvet assert that the sensory nerves lose their properties before the motor nerves, the latter before the cord, and the cord before the muscles; and that the heart, while it is influenced, like all other muscles, by the paralysing action of the bromide, is so far from being especially attacked by it, that it is the last to resist it in cases of true bromism (*Gazette des Hôpitaux*, No. 16, 1868). While M. Laborde (*Archives de Physiologie*, May and June, 1868), affirms that this agent does not act as a poison on the heart, does not paralyse the muscles or the encephalon, and that animals poisoned by it can perform voluntary movements long after all reflex phenomena have ceased; that its primary action is exerted on the spinal cord, and its essential result is an impairment or destruction in this organ of the property of presiding over reflex phenomena. Many other authorities, as M. Rabuteau, Dr. Bill (America), and Dr. Purser (Dublin), have experimented and written on the physiological action of the bromide of potassium, but we are inclined at present to accept the conclusions arrived at by Dr. Robert Amory (*American Journal of Medical Sciences*, 1869), as most satisfactorily explaining its therapeutical properties. He considers, from his experiments, that the effects of the drug are produced by its direct action on the blood-vessels, or the vaso-motor system which controls the action of those vessels, and that this action can account for and explain all the physiological and therapeutical actions of the drug. He reports that the bromide is easily absorbed by the mucous membranes and by the skin, provided that the water in which it is dissolved is below the temperature of 75° Fahrenheit; that its elimination is conducted by the skin and kidneys, and that in therapeutical doses it is not eliminated by the intestines or the lungs; that it passes out of the skin without decomposition; that the larger the doses the more intense and more enduring is the action on the vaso-motor system; and that its action upon the general nervous system is secondary to and dependant upon that of the vaso-motor nerves. Dr. Russell Reynolds also, in a valuable and instructive paper on "The Therapeutic Uses of Bromide of Potassium" (*Practitioner*, vol. i. pp. 5 to 17), records his opinion that the specific action of the drug "is exercised on the system of vaso-motor nerves, and that it acts upon that system as a 'sedative'—*i.e.*, that it reduces such morbid activity as would lead to the spasmodic narrowing of vessels, and the consequent induction of irregularity in the supply of blood." He finds that it does not lessen the force or frequency of the normal pulse; and that the sphygmographic tracing of the pulse is perfectly normal in patients who have taken the bromide in large doses for many months; and is unaltered in the healthy adult by a dose of forty grains.

As a medicine, the highest value of the bromide lies in its remedial powers over epilepsy; and on this point the general experience, now very large, of the Profession agrees pretty closely, we think, with that of Dr. R. Reynolds, who asserts that, in the vast majority of cases, it is of signal service, and that, while it absolutely cures very many cases, it rarely fails to diminish notably the number of attacks where it fails to cure. It is most useful in recent cases, but is also of service in those of long standing, and is as useful in those cases where the fits are frequent and severe as it is in others where they are of rare occurrence and of milder type. The cases which resist its action are generally those which show a marked predominance of attacks of *le petit mal*, or have the severer attacks at rare intervals, or in which the attacks have occurred only at night. Some writers, while acknowledging the great value of the drug in the treatment of epilepsy, doubt its *curative* powers: thus Dr. B. Swan (*American Journal of Medical Sciences*, July, 1870) says—"I believe the bromides to be the best remedies in epilepsy, but I have yet to hear of a case that was perfectly cured." But, on the whole, the above statement fairly expresses, we think, the Professional verdict. Very numerous authorities might be quoted in proof of this, and of the other statements we shall make as to the therapeutical uses of the bromide; but it will suffice to refer our readers to Dr. R. Reynolds's article, to a paper by Mr. W. B. Kesteven in the *Journal of Mental Science* (July, 1869), to Dr. Warburton Begbie's paper in the *Edinburgh Medical Journal* (December, 1866, p. 481), and to the article on the bromides in Dr. S. Ringer's *Handbook of Therapeutics*.

In epileptiform convulsions, occurring in the course of acute or chronic diseases of the brain, the salt is often of great service—mitigating, holding in check, or completely removing the convulsions, while the other symptoms may remain unaffected, or may be relieved or removed. In all other forms of convulsions, as in cases of convulsions accompying Bright's disease, pertussis, or laryngismus stridulus, or from teething, or worms, etc., the bromide is often of great use, *quâ* the convulsive element. Dr. James Jones strongly recommends its use in infantile convulsions characterised by hyperæsthesia of the nerve centres, coupled with anæmia and complete absence of all symptoms of inflammation (*Medical Times and Gazette*, vol. i., 1864).

In many paroxysmal spasmodic affections it renders essential service. Sondahl has not obtained any relief from it in old asthmatic patients, but has found it eminently useful in spasmodic asthma in children (*Journal f. Kinderk.*, September and October, 1868), while Dr. Begbie has given it in spasmodic asthma in adults "with the most gratifying results."

M. Gubler (*Bull. Gén. de Thérapeutique*, 1864,) and some other authorities have a high opinion of the value of the drug in chorea, but others, as Dr. R. Reynolds, have not found it of much use, and it must always be remembered that chorea has so strong a tendency to recovery when the patient is placed under good hygienic management that very great caution is necessary in estimating the effect of medicines on the disorder. While the bromide has so marked and excellent an effect in

paroxysmal spasmodic affections, it seems to have very little or no remedial influence when the spasmodic movements are habitual, "whether they are tonic or clonic, local or general."

In many disorders producing or accompanied by mental disturbance or by sleeplessness the drug renders very great service. In acute mania, in puerperal mania, and in nymphomania a single large dose—grs. xxx. to xl.—at night, and gr. x. frequently during the day, will often procure sleep when opiates and the ordinary sedatives fail. It is not so frequently useful in melancholia or hypochondriasis, but sometimes gives great relief. Dr. Begbie has found it to be a "powerful calmative" in melancholia with great restlessness, and we have known it have a most happy effect in hypochondriasis with sleeplessness at night and great restlessness by day. In acute alcoholism with *insomnia* it has frequently been given with great benefit. Of six cases treated by it—in 5j. doses—by Dr. D. G. Burr, it was completely successful in five (*St. Louis Med. and Surg. Jour.*, November, 1868).

In delirium tremens it has proved of great service, calming the delirium, producing sleep, and removing delusions. It is most useful when given early, before the excitement has become great or the delirium furious.

Dr. W. Moore has published (*Practitioner*, May, 1870) an interesting record of the value of the bromides of potassium and ammonium "in cases of continued fever, complicated with sleeplessness, convulsions, and other cerebro-spinal symptoms;" and Dr. Begbie also has derived great advantage from its employment against "the nervous element of fever."

In the insomnia of the over-worked brain the bromide often renders invaluable service. This has been well and strongly pointed out by Dr. W. A. Hammond, in his excellent little work on "Wakefulness," and by Dr. Begbie. The drug should be given in a twenty or thirty grains dose at bed-time, and, if necessary, in the morning. It not only insures sleep, but calms the restlessness and irritability seen where the nervous system has been overtasked, and removes the giddiness, noises in the ears, and perversions of the external senses, sometimes presented in such cases.

In preventing the night terrors of children, the bromide of potassium is a most valuable medicine; should the affection be connected, as is often the case, with disorder of the stomach or bowels, this must of course be looked to; but, whether disorder of this kind be present or not, the bromide will almost invariably secure calm and refreshing sleep. We have frequently had occasion to be grateful for the excellent service the drug had done us in this affection, and Dr. Sydney Ringer also highly commends it.

In some disorders characterised by occasional disturbance of sensation, the bromide is very useful. In vertigo, pure and simple, it sometimes gives immediate and permanent relief. In sick headache, and headache of a paroxysmal character, particularly when it is attended with heat of head and flushing of the face, it will frequently give rapid relief. Witness to this use of the salt is borne by Dr. R. Reynolds, in the article before referred to, by Dr. Begbie, and by Drs. Yandell and Davis (*American Practitioner*, February and June, 1870.) Many writers, as M. Voisin and M. Gubler, speak highly of the service rendered by it in hyperæsthesia of the mucous membrane of the fauces, œsophagus, air-passages, and urethra; but probably the bromide of ammonium, which has been described as a *laryngeal anæsthetic*, will be found more useful in these conditions than the bromide of potassium. Lastly, the bromide of potassium exercises great control over disturbances of the vaso-motor system in other parts of the body, as well as in the head. Sensations of cold, numbness, deadness, of "pins and needles" in the limbs, or in one limb, "flushings and heats" over the trunk, attacks of palpitation, with anxiety and dread, of indescribable and unbearable sensations of discomfort at the epigastrium or in the lower belly, with dread and extreme nervousness, are not unfrequently complained of, and are a source of great misery. These conditions are not amenable to any ordinary treatment directed to the parts, or the system apparently affected; but the bromide of potassium will generally greatly relieve, and often entirely cure, them. When such conditions come on, as they not unfrequently do at the critical period of change of life in women, the beneficial action of the bromide may be often much aided by combining with it the chloride of ammonium.

While the bromide of potassium is thus capable of rendering us eminent service in the treatment of many very common and obstinate diseases, it possesses yet further this advantage, that it may be given without any danger whatever. Certain inconveniences and discomforts may attend its exhibition, but no dangers. Thus, it not infrequently excites acne or acneiform eruptions on the face or other parts; but, *en revanche*, acne of long standing has sometimes entirely disappeared during the exhibition of the bromide for some other nervous or vascular derangement. In full doses, and very rarely in moderate doses, the drug may induce redness of the palate, epigastric heat, œdema of the lining membrane of the mouth, and salivation, drowsiness, confusion of mind, depression, failure of memory in a remarkable degree, and weakness of the arms and legs; but all these evils entirely disappear on the discontinuance of the drug. No permanent ill effects have ever been observed to follow its employment.

THE WEEK.

TOPICS OF THE DAY.

English Surgeons at the seat of war are, we are happy to say, maintaining the honour of their country and their Profession by cool heroism and unflinching work. The *Times* of Wednesday contains a letter from Captain Henry Brackenbury, describing the work done by Dr. Frank and Mr. Blewitt at Balon, from which we quote the following:—

"If England can ever gain kind thoughts from France and Prussia, it is by the work of such men as these. Frank dressing wounded men all through the battle in a house where the bullets came in like hail through the windows, and crashed into the walls of the room; Blewitt going out through the hot fire to get what was needed to help. It must have been an awful fight here: 129 Bavarian officers and 2000 men killed in and about Balon—street-fighting in its worst form; and what is worse than street-fighting? They had gone from Sedan to Balon the night before the battle, on purpose to be ready for the work, and now I find them at the work, and no words that I could use would express the pride that I felt that such men had come out from us. They had then 120 wounded, and I learn that they have since got many more. I will tell you what I saw. I found them dressing a wounded Bavarian who had been shot in the left side by a Chassepot ball, which had passed through his left lung and out near his spine. I wish the people who have given us money so generously could have seen that one sight alone. The young, handsome, plucky Bavarian, sitting so coolly while his wounds were dressed with a solution of carbolic acid, leaning so completely on Frank, who is a woman in gentleness, and a man in strength and firmness, and a young girl of the village helping him and Blewitt bravely and quietly. The next case I saw him dress was a French soldier, wounded in the thigh by a needle-gun bullet, which seems not to be yet extracted, and who groaned so that Frank gave him chloroform while Blewitt dressed his wound. Those were but two sights of many."

Captain Brackenbury mentions that Dr. Frank performed the feat of successfully ligaturing the carotid, unassisted, by the light of a candle. Several other of our English Medical contingent are mentioned in his letter; and he especially records, on the testimony of Dr. Frank, the value of the services rendered by Dr. Woodham Webb and Dr. M'Cormac.

To Captain Brackenbury's report of Dr. Frank's doings we can add the following extract of a letter from Dr. Frank himself, dated Balon, September 8, for which we are indebted to Mr. Spencer Wells:—

"I was in the very central point of the battle of Balon; balls whistling through the windows of my Hospital. I

worked that day, the 1st, from 7 a.m. till 3 the next morning. Since then I am getting quieter; only 120 cases to look after with another Surgeon in turn—to do everything ourselves—but the amount of distress under these trying circumstances is indescribable, and can only be realised by actual experience. I am most grateful to have had the opportunity of service in so good a cause. I had quite made up my mind never to see my friends again; and if you were to see the bullet-marks in the front of the building and the broken panes you would have an idea of what the situation must have been. Details hereafter. They talk of evacuating the Hospital, and then we must seek work elsewhere."

Our readers will be interested to know that Dr. Frank is a Manchester man, his father having been a German merchant there. He was educated at Berlin, under Langenbeck. He served as Assistant-Surgeon in our army in the Crimea, at the Cape, and in India. Then he was attached to the Army Medical School at Chatham, before the establishment of Netley. Leaving the army, he practised for two or three seasons in Madeira, one at Mentone, and for the last two winters has been in large practice at Cannes. Speaking French and German like a native, he was just the man the International Society wanted, and on his volunteering his services, was at once appointed by Colonel Loyd Lindsay as the representative of the Committee on the scene of action.

The Lords of the Admiralty have obtained permission from the French and German Governments for Deputy-Inspector H. J. Domville, C.B., to proceed to the seat of war. He has gone to Sedan to inspect the ambulance system on the field.

The Hospital at Bingen, on the Rhine, under the superintendence of Mr. Simon and Dr. Thudichum, is to be a model. A site has been obtained on the Rochus Berg, about 300 feet above the river, commanding one of its most beautiful views. The staff consists of Mr. Simon, Dr. Thudichum, eleven Assistant-Surgeons, selected from the London Hospitals, and a chemist. It is determined to open three hundred beds, instead of two hundred, as originally announced. An hotel has been hired for the reception of the staff and Medical stores, and the Hospital tents are to be pitched in front of it. Considering the high Professional reputation of the gentlemen who are concerned in this undertaking, we think it ought to meet with the special support of the British public. The National Society has contributed Surgical instruments and a grant of £300, and the German Government undertakes a large part of the Hospital diet. But still a large sum of money is required. It is calculated that the current expenditure will exceed £20 a day.

The Prince of Wales is to lay the foundation-stone of the new Infirmary at Edinburgh, on October 13. It is expected that His Royal Highness will be accompanied on the occasion by the Princess.

The Medical officers unhappily lost in the ill-fated *Captain*, were Surgeon Matthew Burton, M.D., and Assistant-Surgeon John Ryan. Dr. Burton graduated at the University of Edinburgh in 1840. We regret also to observe that one of the midshipmen lost was Mr. Edward F. Goodfellow, son of Dr. Goodfellow of the Middlesex Hospital.

In consequence, we regret to say, of ill-health, Professor Allman has resigned the chair of Natural History in the University of Edinburgh. The patronage of the chair is in the Crown. Professor Wyville Thomson, of Belfast, and Dr. Alleyne Nicolson, of Edinburgh, are mentioned as candidates. Sir Roderick Murchison proposes to give £6000 to found a chair of Geology and Mineralogy in the University, if the Government will give a similar sum.

Rinderpest has appeared at Kaiserlautern, in the Bavarian Palatinate, amongst the herds in the rear of the Prussian armies. The Privy Council have, therefore, thought it necessary to put in force the powers created by the recent Act for protecting the country against the introduction of cattle plague from abroad.

One or two melancholy cases have occurred lately which illustrate the evil which may result from the excessive caution imposed by the law on Medical men in the matter of signing certificates of lunacy. One of these cases was that of a Medical man in one of the public services who had shown symptoms of suicidal mania, had threatened to commit suicide, and who was known to have obtained a bottle of prussic acid, which he had secreted between his bed and his mattress. Yet his conversation and manner were so rational that the Medical men consulted declined to sign the certificates which would have placed him under restraint. The unfortunate man was seen in the street to swallow the contents of a small bottle, and immediately rushed into a pastry-cook's shop, where he asked the shopkeeper to send for a doctor, and immediately fell dead. From the evidence given at the inquest, there can be no doubt that, had the account given by the family of the unhappy man been relied upon as evidence of insanity, his life might have been saved. But courts of law require the evidence of facts personally observed by the Medical man who signs the certificate—evidence which in this case could clearly not be obtained. The case is interesting as an instance of the exercise of the power of locomotion and speech after the swallowing of a considerable dose of prussic acid. The report we have seen of the inquest states that "the Medical evidence showed that the deceased had taken a sufficient quantity of prussic acid to poison twenty persons." The jury returned a verdict of "Suicide while of unsound mind."

On Thursday, last week, Drs. Stone and Ord were unanimously elected Assistant-Physicians to St. Thomas's Hospital. Drs. Payne, Nunneley, Elam, and Thomson Dickson were also candidates, but retired from the contest before the election.

The St. Pancras guardians, on receiving the letters, to which we lately drew attention, from the Poor-law Board declining to sanction the proposal of the guardians to appoint four Medical officers exclusively for parish work, and recommending the appointment of eight, with liberty to practise, and ordering that all Medical officers in parishes, as in unions, should hold office permanently, have, it seems, written to the Poor-law Board, asking that this order should be suspended, as far as St. Pancras is concerned, until December 25. To this request the Poor-law Board have acceded; and the board of guardians have appointed the present Medical officers to their respective districts up to that time. The board of guardians will thus gain time to consider and arrange a plan for the reconstitution of the Medical districts on the basis of the proposition approved by the Poor-law Board. At the same time, they reserve to themselves the power of re-electing or rejecting their present Medical officers when they fill up the permanent offices on December 26. This is a result which, considering the testimony borne to the satisfactory discharge of their duties by these gentlemen in the recent letter of the Poor-law Board, we think, is to be regretted.

Recently, at Worship-street, a respectable Surgeon residing in Hackney was summoned and fined 20s., with the option of imprisonment for fourteen days, for having given a child a slight slap on the cheek who had rung his door-bell and tried to run away. We should like to know how the sitting magistrate would have felt and behaved under the like annoyance. We do not justify the blow, although it was undoubtedly provoked but we maintain that the penalty was out of all proportion to the offence.

A child at the Newport Market Ragged Schools has been fatally burnt by sitting on a block of wood which had been sprinkled with carbolic acid. The school had been sprinkled with carbolic acid as a disinfectant. The child lived from Tuesday to Friday, and then sank from the severe burns and shock.

Professor Huxley's brilliant address, of which we publish a full abstract, will no doubt give an impetus to the controversy

as to the origination of living beings. Our special correspondent at the meeting of the Association has in his letter to us expressed his first impression on listening to Professor Huxley's eloquent sketch; but we doubt whether that of "conclusive inconclusiveness" is the impression which the Professor intended to leave. The most important part of the address, however, to Medical men is that in which he carried his hearers into the field of pathology. We would remind our readers *en passant* that the microscopic observations quoted by Professor Huxley on the active element of vaccine lymph are not the earliest made in point of time. If we mistake not, the organic particles in vaccine lymph were carefully described and figured by Dr. Lionel Beale seven years ago.

HONORIS CAUSA.

It is pleasant amid the horrors of war to find that scientific courtesy is uninterrupted between neutrals; and we are glad to hear that the Fellows of the Royal Society of Medical and Natural Science, of Brussels, have just unanimously elected Mr. Spencer Wells as an honorary Fellow of the Society, "in consideration of the eminent services that he has rendered to science and humanity."

BRITISH MILITARY SURGEONS AT THE SEAT OF WAR.

We hear that Dr. Gordon arrived in Paris on the night of Saturday, the 3rd inst. His adventures soon commenced in the rather disagreeable experience of his being arrested in the street on Sunday as a Prussian spy, and being marched off under escort, surrounded by a jostling, angry mob, to a police office, where the inspection of his papers satisfied the authorities, and he was immediately released. The *surveillance* of all strangers is so zealous and unceasing, that he must have considerable difficulty in making, and still more in recording, any observations; but, in spite of all difficulties and no inconsiderable degree of danger, we anticipate from Dr. Gordon an accurate and valuable report as to the Medical and hygienic preparations of a great city to meet the advances of a besieging army, and should the worst come to the worst, the progress of the siege itself "*Quod Dii avertant.*" We understand that Surgeon-Major Wyatt started about the end of last week to join Dr. Gordon in Paris. The change of Government will probably for some time obstruct the reception of both officers by the French military authorities, as on leaving this country they were accredited to the Imperial head-quarters—an address not likely to be recognised by the new *regime*. We regret to hear that, at the last moment, political considerations have, for a time at least, prevented Doctor de Chaumont and Assistant-Surgeon Count Wollowicz from proceeding to the Prussian head-quarters. The name of the former officer, and the nationality and only recent naturalisation of the latter, combined with the prominent political position he had held in Poland, are considered such powerful objections to these officers going to the Prussian army that further reference on the subject has been made to the Prussian Government. There can be no doubt that, in all other respects, they are both eminently qualified for the proposed duty, and we trust that the objections may be withdrawn; but, if not, we hope no time may be lost in detailing two other Medical officers to undertake the mission to the Prussian army. We hear that Staff-Surgeon E. Becher, having obtained leave of absence about the time of the commencement of hostilities, has succeeded in joining one of the volunteer ambulance corps of the Wurtemberg division of the Prussian army.

VOLUNTEER MEDICAL ORGANISATION.

Volunteer Medical officers are naturally dissatisfied with the position they occupy, and if the combatant officers have just reason for complaint, they certainly have much more; for not only are they systematically snubbed at the War Office, but their own officers not unfrequently have a turn at the "Doctors." A committee of the Volunteer Medical Association has accordingly been appointed to consider the matter, and have drawn up a scheme which will be laid before a general meeting of officers to be held in London next month. After this a committee will probably wait upon Mr. Cardwell, to lay before him the scheme ultimately agreed on at the meeting, the date of which has not yet been fixed.

THE FEVER EPIDEMIC IN LIVERPOOL.

A letter from our Liverpool correspondent, which we publish this week, indicates the very serious aspects assumed by the epidemic there. On the 3rd inst., the total number under treatment was 793; but by the 13th it had increased to 950. As many as 75 orders for admission to the workhouse or Fever Hospital had been distributed the day before, and the number would be increased when the Kirkdale report came in. Such a state of matters is most serious, and all the more so inasmuch as the authorities are adopting the plan of home treatment—an absolutely certain mode of propagating such a disease as typhus. It is high time the Privy Council interfered.

THE EPIDEMIC OF SMALL-POX IN PARIS.

Since we reported upon the progress of this terrible epidemic a fortnight since, when it had considerably declined, a recrudescence has occurred, the deaths amounting, for the week ending September 3, to 148 in a total mortality of 1159. For the week ending September 10 they declined again to 116 in a total mortality of 981.

THE SEAMEN'S HOSPITAL, GREENWICH.

The transfer of patients from the old *Dreadnought* to their present quarters in the Infirmary of Greenwich Hospital has now been completed long enough to allow everything to be reduced to proper working order. A good many alterations in the system of management have been effected with advantage. The institution still remains available for practical instruction in dressing and operations, for which, indeed, it possesses pre-eminent advantages.

LIABILITY OF SURGEONS.

The following remarks, taken from the *Law Journal* of September 2, at least evince the interest taken by the legal Profession in all that concerns the liability of Medical men, and the vexatious proceedings with which, unfortunately, even the most skilful among them may be harrassed:—

"A child 3 years old fell down and seriously injured its hand. After two vain attempts to tie the artery, the hand was fastened to the shoulder, and so kept for twenty-six hours. Mortification set in, and the child lost a finger. The action was brought against the Surgeon for damages. The Medical evidence for the defence was that the treatment was proper, that the mortification was due to the wound, and not to the treatment, and that it was fortunate the child had not lost its life. The verdict was for the defendant. We have no desire to decrease the liability of Surgeons, yet we hold that they ought to have some protection against unjustifiable actions. We know nothing of the parties in the case we refer to, and we take our summary from the report in the daily papers. We think that such an action should not have been brought, because a Surgeon is not liable unless he is guilty of gross negligence or of gross blundering. In this case there appears to have been due care and due skill, yet the Surgeon is harrassed with a law-suit. The plaintiff has to pay the costs, but that does not compensate the Surgeon for the worry, trouble, and annoyance he has suffered. Still the payment of costs will deter persons from bringing actions not warranted by the facts, particularly as after the delivery of the writ, application is made by the defendant for security for costs."

DEVONPORT PROVIDENT DISPENSARY.

At a meeting of the Medical Profession of Devonport, held at the Royal Albert Hospital, Tuesday, September 6, the following resolution was adopted unanimously:—

"That the principle of admitting members to a provident club without any limitation as to means or position, is

improper, and is likely to embrace many persons well able to pay for Medical attendance. This meeting, having considered the rules of the Professional and Commercial Provident Dispensary now submitted to it, considers that it is open to the above objection, and declines in any way to co-operate with it."

ON THE CHOICE OF BOOKS.

Our title is not original, and we do not know that we have much which is original to say, but the subject has in a measure been forced on us by certain communications *apropos* of our "Word to Students" of last week. We have been asked to indicate the best books for a student's use, especially in his first year of study. This is no easy matter; nevertheless there are certain broad rules to be followed, with a view to saving both time and money.

We said something last week on the appropriate use of a text-book, and its exact relations to the teacher's lectures; but different men, different systems. Some teachers have insisted on the use of a text-book in one particular way; the student is supposed to have made himself master of that which is contained in the text-book, the teacher's instruction consisting of a gloss on, or explanation of, what is therein contained. This system would be perfect were there any perfect text-books, but we have never seen any; on the whole, therefore, we prefer the plan of making the lecture or demonstration the main thing, the book serving as adjunct. But how to select a book? Many teachers, on commencing their course, indicate the book they think the student had better use, and it is always advisable to wait for this instead of rushing off to the book-stall immediately on entering the name in the register. But supposing this is not done, and the student is left to his own guidance, we would counsel him to resort to one of the ready-money shops, where he can get a discount of five-and-twenty per cent., and purchase the latest edition of the best book he can get. Never buy old editions—the money is thrown away—and the student will find it a good rule never to buy very old books. Then again, the student preparing for a simple Pass Examination should not buy too big a book nor too small a book. A big book will very likely enter into details which many students do not care for, and which, indeed, have been inserted by the author, not from any sense of their usefulness, but to make his book *complete;* and, again, a very small book necessitates another—it is money thrown away.

Again, if the teacher has written himself, his book will be the best to accompany his teaching; even if not the best obtainable. In any case the book ought to be selected with a view to the oral instruction to be received. Let us exemplify what we mean. Most of the chemical teaching in London is in accordance with the new notation. Now, one of the most charming scientific books we know is the late Professor Graham's "Elements of Chemistry," but to the student commencing the study of chemistry it would be useless. The constant apparent conflict between the ideas inculcated by his teacher and those in his book would hopelessly confuse him. On the other hand, look at Professor Frankland's "Notes on Chemistry;" to the student attending the majority of our London teachers they would be worse than useless. Taken as accompaniments to the Professor's own teaching they are invaluable; but the advanced system of notation employed stands in the way of their general utility. Generally speaking, however, the books ordinarily used are in accord in most points with the received teaching.

But, to come to the first winter's work—for it is on entering that these mistakes are most frequently committed—three subjects are allotted for study: Anatomy, Physiology, and Chemistry. We have already urged the propriety of sticking hard to chemistry, and of fairly mastering it during the first year, and shall, therefore, speak of its text-books first. Devoted to this subject, we select three—the large, the medium, and the small varieties of books. The large is Professor Allen Miller's three-volume work; exceedingly complete, excellent in every way, but containing more than is essential to the student, both in physics and organic chemistry. Next, we have the old-established favourite—the book which, as students, we used to prefer—Fownes' "Manual;" the man who has fairly mastered that has done well. And, last and least, but not less capital, is Roscoe's "Elementary Lessons"—a great favourite with students. One or other of these will suit.

During his first year, the student should make it his great object thoroughly to master human osteology. A set of bones, either private or school property, is essential to this end; and to aid him in his studies, beyond what is given in the ordinary anatomical text-books, he may fall back on either Holden or Ward's book; both are good, and the student may consult his pocket, which, in most instances, would say Ward. For anatomy, two books again command attention—Quain and Sharpey and Gray. The great advantage the former has over the latter is the admirable compendium of minute anatomy by Professor Sharpey, something wonderful in its way. As companions in the dissecting room, we again can commend two, Ellis and Heath, the former minutely accurate, the latter with the dash of the Surgeon about it, but both capital guides in practical anatomy.

Turning next to physiology, we do not hesitate a moment in commending Carpenter's large work, as edited by Henry Power. Kirke's, the medium-sized volume, is hardly so satisfactory, although generally used; and, for a small book, Huxley's is very good; but both might be better. To the German scholar we commend Hermann or Ludwig.

In each case we have restricted ourselves to two or three books, not because there are not other good ones, but telling the student that books are good is not telling him which will best suit his purposes.

TESTAMENTARY CAPACITY.

A most important judgment was delivered only last term by Lord Chief Justice Cockburn, in the Court of Queen's Bench, which for the first time raised the question "whether partial unsoundness, not affecting the general faculties, and not operating on the mind of a testator in regard to the particular testamentary disposition, will be sufficient to deprive a person of the power of disposing of his property by will." The case was that of Banks *v.* Goodfellow. The Lord Chief Justice thus eloquently proceeded: —

"It is not given to man to fathom the mystery of the human intelligence, or to ascertain the constitution of man's sentient and intellectual being. But whatever may be its essence, every one must be conscious that the faculties and functions of the mind are various and distinct, as are the powers and functions of our physical organisation. The instincts, the affections, the passions, the moral sense, perception, thought, reason, imagination, memory, are so many distinct faculties or functions of the mind. The pathology of mental disease, and the experience of insanity in its various forms, teach us that while, on the one hand, all the faculties, moral and intellectual, may be involved in one common ruin, as in the case of the raving maniac, one or more only of these faculties or functions may be disordered, while the rest are left unimpaired and undisturbed; that while the mind may be overpowered by delusions which utterly demoralise and unfit it for the perception of the true nature of surrounding things, or for the discharge of the common obligations of life, there often are, on the other hand, delusions which—though the offspring of mental disease, and so far constituting insanity—leave the individual in all other respects rational and capable of transacting the ordinary affairs, and fulfilling the duties and obligations incidental to the various obligations of life. No doubt, when delusions exist which have no foundation in reality, and spring only from a diseased and morbid condition of the mind, to that extent the mind must necessarily be taken to be unsound; just as the body, if any of its parts or functions is affected by local disease, may be said to be unsound, though all its other members may be healthy, and their powers or functions unimpaired. But the question still remains whether such partial unsoundness, if it leaves the affections, the moral sense, and general power of the under-

standing unaffected, and is wholly unconnected with the testamentary disposition, must have the effect of taking away the testamentary capacity? We readily concede that where a delusion has had, or is calculated to have, an influence on the testamentary disposition, it must be held fatal to its validity. Thus if, as occurs in a common form of monomania, a man is under a delusion that he is the object of persecution or attack, and makes a will in which he excludes a child for whom he ought to have provided, though he may not have adverted to that child as one of his supposed enemies, it would be but reasonable to infer that the unsound condition had influenced him in the disposal of his property. But in the case we are dealing with, the delusion must be taken neither to have had any influence on the provisions of the will, nor to have been capable of having any; and the question is, whether a delusion thus wholly innocuous in its results, as regards the dispositions of the will, is to be held to have had the effect of destroying the capacity to make one. The state of our own authorities being such as we have shown, we have turned to the jurisprudence of other countries, as on a matter of common judicial interest, to see whether we could there find any assistance towards the solution of the question. We have, however, derived but little advantage from the inquiry. . . . . If the human instincts and affections, or the moral sense, be perverted by mental disease; if insane suspicion or aversion take the place of natural affection; if reason and judgment are lost, and the mind becomes a prey to insane delusions calculated to interfere with and disturb its functions, and lead to a testamentary disposition due only to its baneful influence, in such a case it is obvious that the condition of testamentary power fails, and that a will made under such circumstances ought not to stand. But what if the mind, though possessing sufficient power, undisturbed by frenzy or delusion, to take into account all the circumstances necessary to the proper making of a will, and producing a rational and proper will, should be subject to some delusions, but a delusion which neither exercises nor is calculated to exercise any influence on the particular disposition? Ought we in such case to deny to the testator the capacity to dispose of his property by will? If it be conceded that the only legitimate ground for denying testamentary capacity to persons of unsound mind is the inability to take into account and give due effect to the considerations which ought to be present to the mind of a testator, and influence his decision as to the disposal of his property, it follows that a degree or form of unsoundness which neither disturbs the exercise of the faculties necessary for such an act, nor is capable of influencing the result, ought not to take away the power of making a will, or place a person so circumstanced in a less advantageous position than others with regard to his rights."

FROM ABROAD.—THE WAR IN FRANCE.

WAR, with all its horrors, stands now face to face with Paris itself, and most of the Medical journals have announced their suspension during the siege, when arms and brains will be wanted for other purposes than the diffusion of scientific knowledge. The different journals welcome the change of Government as calculated not only to give a much needed impetus to national resolve, but as removing an obstacle to freedom of action and arresting a demoralisation which has long been sapping the vitals of the country, and which has not spared the Medical Profession itself. One of the appointments, at least, they hope will prove not to be a mere temporary one—that of M. Jules Simon as Minister of Public Instruction, a post which public opinion and his antecedents have long pointed him out as highly qualified to fill. As was to be expected, there is not found in the Medical journals that recklessness of expression and assertion which distinguishes a portion of the political press of Paris just now; and when we remember that it is a Frenchman who writes, we ought not, perhaps, to be much surprised at finding so usually moderate a writer as M. Amedée Latour characterising the German adversary as "barbarism invading civilisation; the middle ages endeavouring to impose itself on the nineteenth century." As to the military and volunteer ambulances, great anxiety is felt respecting them—

"In the midst of these bloody disasters that have befallen our armies, what has become of our brave *confrères?* We have no account whatever of them in the various and lamentable recitals of the battle of Sedan. Where is Legouest and his comrades, who, after escaping the slaughter at Reichsoffen, went to rejoin MacMahon's army? What has been their fate during those four days of carnage, and what is their position in consequence of this humiliating capitulation?—are they free or prisoners? Who of them perished on the field of battle? What has become of Larrey and his *confreres*, blockaded in Metz—in Metz, with an army of 100,000 men, with innumerable wounded, and a population of 40,000 inhabitants, undergoing, probably, all the consequences of such an enormous accumulation? Let it be said to the glory of Hippolyte Larrey, and of the illustrious name he bears, that had he been a mere hanger-on of the Court he would have been sheltered from all the eventualities which he has been subjected to. He was at the head-quarters of the Emperor at Rheims when Bazaine was invested with the chief command of the army. 'My duty is no longer here,' he said to the Emperor; 'it calls me to the side of the generalissimo, and there I must go.' He set out, and succeeded in joining Bazaine, after encountering a thousand dangers."

This element of uncertainty is, indeed, one of the most painful for all those engaged in conflict. It is illustrated in the case of our *confrère* Leon Le Fort, who, while he is now with his volunteer ambulance at Metz, lavishing care on the wounded, has just lost a little daughter, 4 years old, without it being possible even to acquaint him with her illness. The eager offers of individuals in Paris—members of our own Profession being conspicuous among them—of private residences for the use of the wounded, has received a check in their being declined for administrative reasons. It has, it seems, been decided that the wounded shall only be treated in Hospitals or in large establishments, where the administration can exert an effective control and the military authorities be kept acquainted with the number of wounded. As to this last point, as little organisation has been employed hitherto as in other parts of the Medical service, for it is now stated that the military authorities have no record of the number of wounded which has hitherto occurred. This new resolution of the *intendance* has been much criticised, as tending to damp enthusiasm and voluntary effort, while treating the security against overcrowding which this dispersion seemed to aid in giving as of little consequence. On the other hand, it is affirmed by those acquainted with the matter that efficient attendance on the badly wounded cannot be given in private residences, and it is suggested that these had better be reserved for the convalescent and for patients who may be dismissed from other establishments to make way for the wounded.

As an additional illustration of the defective provision in the French army for its sick and wounded—if, indeed, further proof be wanting—we may refer to a statistical account of the proportionate supply in this respect in the armies of the two belligerents, drawn up by M. Dechambre for the *Gazette Hebdomadaire*. According to the last published returns, the effective force of the French army on January 1, 1869, amounted to 411,437 men; and for this force there were 423 Medical officers employed in the Hospital and 586 in the regimental services—*i.e.*, a total of 1009, or 1 to 437 men on a peace footing. In time of war the proportions are no longer the same, the effective force of the army increasing without the regulation number of Medical officers undergoing alteration. Thus, a regiment of 1500 or 1800 while in garrison is raised to 3000 for a campaign; and as it leaves a Medical officer at the depôt, it has but 1 Medical officer to 1500 men. Then, again, these, few as they are, are not properly utilised, as they are not employed in the ambulances. And of the 423 Hospital Medical officers there are but some 200 who are employed in treating cases in the ambulances, one-half of these not practising Surgery; so that, if the rules of employment are rigorously carried out, not above 100 Surgeons are disposable for ambulance service. At the time of battle, doubtless, the regulations are not strictly observed, and the regimental Surgeons lend their aid. The Prussian army at Sadowa had 10 ambulances for the three corps, and 51 divisional ambulances, comprising about 850

Medical officers, without counting those attached to the Hospitals. In the regimental service there were 6 Medical officers per infantry regiment, and 3 for each cavalry regiment. The wounded of the campaign amounted to 13,731, and the killed to 2553, giving 1 ambulance Medical officer per 340 effective and per 17 wounded. Taking the sick (64,191) into account, there was 1 ambulance Medical officer for 95 sick or wounded during the three months. The great inferiority of the numbers of Medical officers in the French service has, at present, been of no consequence, as, by the fortune of war, the great bulk of the wounded have remained prisoners in the hands of the Germans; but had the issue proved different, and had the French army been victorious on German territory; and had the charge of attending its own wounded and those of the enemy been thrown upon it—and even now, if epidemics supervene—what could so feeble an ambulance force do, even when aided by the regimental Surgeons? "It would seem, then, to result, from what precedes, that the actual circumstances, afflicting as they are for our patriotism, are at least more favourable to our poor wounded than the contrary circumstances would have proved. This is not, apparently, the avowed object of the administration: but we must, nevertheless, look at things as they really are, were it only to deduce the moral from them."

The siege of Strasburg, destined to remain celebrated in history, has already been attended with a great calamity to literature in the destruction of the noble library, probably the most complete and choice of all the French provincial libraries. It is ridiculous on the part of the French to reproach the besiegers with an act of Vandalism. None would be more ready than they to appreciate and preserve literary treasures, which, indeed, they might expect would become their own. It is a result of the chances of war, which should be more seriously reflected on before they are incurred. M. Zeller, who was recently appointed Rector of the Academy of Strasburg, but has never been able to penetrate into his new post, has addressed a letter to M. Brame, the Minister of Public Instruction, just displaced, pointing out the various public sources whence a new library may be recruited, and calling upon authors and publishers for donations. The letter, though well meant enough, might, one would have thought, have been better delayed, as well as the appointment of the writer, until the continued possession of the city had been quite assured. However, the Minister thought otherwise, and replied in the tone which has characterised recent French State documents, his letter commencing thus:—

"I thank you for your communication, and I did not look for less from him whom I had summoned to represent the University in the noble Academy of Strasburg. In this struggle with a savage enemy, General Ulrich speaks like he acts, with the resolution of a character of antiquity; and the soldiers by their ardour and the inhabitants by their constancy, show themselves worthy of such a chief. But all these terrible trials will have their end, and when our honour has been maintained, the fortress saved, and the barbaric army annihilated, France will reconstruct Strasburg. . . . Rely upon me, the library of Strasburg shall rise again rich and glorious. I desire to consecrate it as a monument which shall attest to future ages the patriotism of our Alsace. I desire to place at the entrance of this monument an inscription, or, better, a sentence, ratified by the universal conscience, which may teach our posterity the part that each has taken in the bombardment of the city. There will be read the heroism of the population, the indomitable tenacity of our soldiers, the cowardly cruelties of the besieging army, and the eternal infamy attached to the Prussian general—a name which will for ever call to mind this most odious attempt against humanity and civilisation."

Professor Langenbeck, of Berlin.—This eminent Surgeon has had a son killed during the present campaign.

The foundation-stone of Lytham Cottage Hospital was laid on Friday in last week. The entire cost of the building is to be defrayed by Colonel Clifton.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—LIVERPOOL MEETING.

PROFESSOR HUXLEY ON THE GENERATION OF LIVING ORGANISMS.

Professor Huxley in his inaugural address as President of the British Association for the Advancement of Science, delivered at Liverpool on Wednesday, has departed from the general plan pursued by former presidents of giving a panoramic view of recent scientific progress, and has preferred to lay before his hearers a very full account of the rise and progress of a single biological doctrine—that of the generation of living matter. He said the old doctrine, which held its ground through the middle ages down, indeed, to the seventeenth century, was, that life may and does proceed from that which has no life; that low forms of life were generated in the matters in which they made their appearance.

"The first repudiation of it, the first distinct enunciation of the proposition that all living matter has sprung from pre-existing living matter, came from an Italian, Francesco Redi, a man of the widest knowledge and the most versatile abilities, distinguished alike as scholar, poet, physician, and naturalist; who, just 202 years ago gave to the world the idea which it is my purpose to trace. He did not trouble himself with speculative considerations, but attacked experimentally what had been considered to be particular cases of spontaneous generation. 'Here are dead animals, or pieces of meat,' he said; 'I expose them to the air in hot weather, and in a few days they swarm with maggots. You tell me that these are generated in the dead flesh; but if I put similar bodies, while quite fresh, into a jar, and tie some fine gauze over the top of the jar, not a maggot makes its appearance, while the dead substances, nevertheless, putrefy just in the same way as before. It is obvious, therefore, that the maggots are not generated by the corruption of the meat; and that the cause of their formation must be something which is kept away by gauze, but gauze will not keep away aëriform bodies or fluids. This something must therefore exist in the form of solid particles too big to get through the gauze. Nor is one long left in doubt what these solid particles are; for the blow-flies, attracted by the odour of the meat, swarm round the vessel, and, urged by a powerful, but in this case misleading instinct, lay eggs, out of which maggots are immediately hatched upon the gauze. The conclusion, therefore, is unavoidable—the maggots are not generated by the meat, but the eggs which give rise to them are brought through the air by the flies.' Almost childishly simple as these experiments now seem, they were at that time new, and they are worthy of careful study. Every piece of experimental work since done, in relation to this subject, has been shaped upon the model left by the Italian philosopher."

The result of Redi's experiments was the hypothesis that, in all cases of seeming production of life from dead matter, the real explanation was the introduction of living germs from without into that dead matter. This hypothesis, to avoid circumlocution, Professor Huxley called biogenesis; the contrary doctrine—that living matter may be produced by not living matter—he called the doctrine of abiogenesis.

"It is interesting to observe that Redi did not escape the customary tax upon a discoverer, of having to defend himself against the charge of impugning the authority of the Scriptures; for his adversaries declared that the generation of bees out of the carcase of a dead lion is affirmed in the book of Judges to have been the origin of the riddle with which Samson perplexed the Philistines. Against all odds, however, the philosopher did splendid battle in the cause of biogenesis; but he held the doctrine in a sense which, if he had lived in these times, would have caused him to be classed among the defenders of 'spontaneous generation.' *Omne vivum ex vivo* aphoristically sums up his doctrine, but he went no further. He had speculatively anticipated the manner in which grubs are deposited in fruits and in the galls of plants, but he admitted that he had not sufficient evidence to bear him out, and he therefore preferred the supposition that they are generated by a modification of the living substance of the plants themselves. Indeed he regarded these vegetable growths as organs by which a plant gives rise to an animal, and he looked upon this production of animals as the final cause of galls and of

some fruits. He proposed, also, to explain in the same way the production of parasites within the animal body. It is of great importance to apprehend Redi's position rightly; for naturalists have ever since been working upon the lines of thought he laid down."

Redi held there were two modes of biogenesis. By one the parent gives rise to offspring which passes through the same cycle of changes as itself—homogenesis. By the other the parent was supposed to give rise to offspring which passed through a different series of states, and did not return into the cycle of the parent. This might be called heterogenesis, or with M. Milne-Edwards xenogenesis—the generation of something foreign. Aided by the earlier applications of the microscope to anatomy, the progress of biogenesis was triumphant; for nearly a century the hypothesis of abiogenesis became more and more discredited, when Buffon and Needham took up the question. Buffon and Needham doubted the applicability of Redi's hypothesis to the infusorial animalcules. Needham endeavoured to bring the question to an experimental test.

"He argued that if these creatures were produced from germs, the germs must exist either in the substance infused, or in the water, or in the superjacent air. Now, the vitality of germs is destroyed by heat; and hence, if the infusion were boiled, carefully corked, and the vessels containing it again heated, all germs present would be destroyed. Consequently, on Redi's hypothesis, when the vessels thus prepared were set aside to cool, no animalcules should be developed in them; whereas if animalcules are not dependent upon pre-existing germs, but are generated from the substance infused, they ought in time to make their appearance. Needham found, under the circumstances in which he made his experiments, that animalcules always did arise in the infusions. In much of his work Needham was associated with Buffon, and the results of their experiments fitted with the French naturalist's hypothesis of 'organic molecules,' according to which life is the indefeasible property of certain indestructible molecules of matter which exist in all living things, and have inherent activities, by which they are distinguished from not living matter. Each individual living organism is formed by their temporary combination. They stand to it in the relation of the particles of water to a cascade or a whirlpool, or to a mould into which the water is poured."

According to this hypothesis, the death and putrefaction of an animal or plant is merely the breaking up of the form or manner of association of its constituent organic molecules, which are then set free as infusorial animalcules. This doctrine is not identical with abiogenesis, with which it is often confounded. According to it, a piece of beef or a handful of hay is dead only in a limited sense.

"The beef is dead ox, and the hay is dead grass; but the 'organic molecules' of the beef or the hay are not dead, but are ready to manifest their vitality as soon as the bovine or herbaceous shrouds in which they are imprisoned are rent by the macerating action of water. The hypothesis, therefore, must be classified under xenogenesis rather than under abiogenesis. Such as it was, I think it will appear, to those who will be just enough to remember that it was propounded before the birth of modern chemistry and of the modern optical arts, to be a most ingenious and suggestive speculation. But the great tragedy of science—the slaying of a beautiful hypothesis by an ugly fact—which is so constantly being enacted under the eyes of philosophers, was played almost immediately, for the benefit of Buffon and Needham. The Abbé Spallanzani suggested that Needham's experiments had not been conducted with sufficient care; and showed that a more prolonged exposure of the flasks to an elevated temperature, and a more complete method of closing them, entirely prevented the appearance of animalcules. But we all too often forget that it is one thing to refute a proposition, and another to prove the truth of a doctrine that contradicts that proposition; and the advance of science soon showed that, though Needham might be quite wrong, it did not follow that Spallanzani was quite right."

The discovery of oxygen and of some of its relations to the phenomena of life opened a new aspect to the question, and occasioned doubts as to Spallanzani's experiments. It was thought that the production of life might have been checked by chemical changes.

"It was needful to repeat the experiments under conditions which would make sure that neither the oxygen of the air nor the composition of the organic matter was altered in such a manner as to interfere with the existence of life. Schulze and Schwann devised means of accomplishing this, by causing the only air which reached the infusions to pass through red hot tubes or through strong sulphuric acid. They found that an infusion so treated developed no living things; but that, if it was afterwards exposed to common air life appeared abundantly. The accuracy of their experiments has been by turns affirmed and denied, but, in any case, they only proved that the treatment to which the air had been subjected had destroyed something that was essential to the development of life in infusions. This something might be solid, fluid, or gaseous; that it consisted of germs remained only an hypothesis of more or less probability. Contemporaneously with these investigations came the discovery of Cagniard de la Tour, that common yeast is composed of a vast accumulation of minute plants. Thus fermentation, in so far as it is attended by the development of microscopical organisms in enormous numbers, became assimilated to the decomposition of an ordinary infusion; and it was an obvious suggestion that the organisms were, in some way or other, the causes both of fermentation and of putrefaction. The chemists, headed by Berzelius and Liebig, laughed the notion to scorn; but in 1843 it was shown by the since illustrious Helmholtz that the interposition of a membrane between a putrefying or a fermenting liquid and one that was simply putrescible or fermentible prevented the formation of organisms in the latter. Therefore, the cause of the development of these organisms must be something that cannot pass through membrane; and, when viewed by the light of Graham's subsequent researches upon colloids, Helmholtz's experiments narrowed the issue to this: that which excites fermentation and putrefaction, and at the same time gives rise to living forms in an infusion, is not a gas and is not a diffusable fluid; therefore, it is either a colloid, or it is matter divided into very minute solid particles. The investigations of Schroeder and Dusch in 1854, and of Schroeder alone in 1859, cleared up this point by showing that the exclusion of air from an infusion by a plug of cotton wool prevented putrefaction, fermentation, and the development of organic forms. It is hard to imagine what the fine sieve formed by cotton wool could have excluded, excepting minute solid particles, but it was reserved for Professor Tyndall to complete the demonstration—first, by showing that ordinary air does contain such particles, and secondly, that filtration through cotton wool removes them. It has been a common objection to the doctrine of biogenesis that if it were true the air must be thick with germs; and the abiogenists regard this as the height of absurdity. Professor Tyndall has proved that ordinary air is no better than a stirabout of excessively minute solid particles; that these particles are almost wholly destructible by heat; and that they are strained off, and the air rendered optically pure, by passing through a layer of cotton wool. It remains yet in the order of logic, though not of history, to show that among these solid destructible particles there are germs capable of giving rise to living forms. This was done by M. Pasteur, in those beautiful researches which will ever render his name famous, and which, in spite of all attacks upon them, appear to me to be models of accurate experimentation and logical reasoning. From the whole chain of evidence it is demonstrable:—That a fluid eminently fit for the development of the lowest forms of life, but which contains no germs nor any protein compound, gives rise to living things in great abundance if it is exposed to ordinary air, while there is no such development if the air with which it is in contact is mechanically freed from the solid particles which usually float in it, and which may be made visible by appropriate means; that the great majority of these particles are destructible by heat, and that some of these are germs or living particles capable of giving rise to the same forms of life as those which appear when the fluid is exposed to unpurified air; that inoculation of the experimental fluid with a drop of liquid known to contain living particles gives rise to the same phenomena as exposure to unpurified air; and it is further certain that these living particles are so minute that the assumption of their suspension in ordinary air presents not the slightest difficulty. On the contrary, considering their lightness and the wide diffusion of the organisms which produce them, it is impossible to conceive that they should not be suspended in the atmosphere in myriads. On all these grounds, the evidence, direct and indirect, in favour of biogenesis for all known forms of life must be admitted to be of great weight. On the other side, the sole assertions worthy of attention are that hermetically-sealed fluids which have been exposed to great and long-continued heat have sometimes exhibited living forms of low organisation when they have been opened. It is probable that there must be some error in these experiments, since others similar to them are performed on an enormous scale in the preservation of various kinds of food in tin cases, and with a totally different result. Even if this were not so,

it would by no means follow from the experiments to which I refer that abiogenesis had really occurred. The resistance of living matter to heat is known to vary within considerable limits, and to depend to some extent upon the chemical and physical qualities of the surrounding medium. But if, in the present state of science, we are offered the alternative either of believing that germs can stand a greater heat than has been supposed, or that the molecules of dead matter, for no valid or intelligible reason that is assigned, are able to re-arrange themselves into living bodies, exactly such as are frequently produced in another way, I cannot understand how our choice can be even for a moment doubtful."

Professor Huxley, however, guarded himself against the supposition that he intended to suggest that no such thing as abiogenesis had occurred in the past or would in the future. Looking back over the past and finding no record of the commencement of life, he was devoid of any means of forming a definite conclusion as to the condition of its appearance.

"Belief, in the scientific sense, is a serious matter, and needs strong foundations. To say that I have any belief as to the mode in which the existing forms of life have originated would be using words in a wrong sense. But expectation is permissible where belief is not; and if it were given to me to look beyond the abyss of geologically-recorded time to the still more remote period when the earth was passing through physical and chemical conditions, which it can no more see again than a man can recall his infancy, I should expect to be a witness of the evolution of living protoplasm from not living matter. I should expect to see it appear under forms of great simplicity, endowed, like existing fungi, with the power of determining the formation of new protoplasm from such matters as ammonium, carbonates, oxalates, and tartrates, alkaline and earthy phosphates, and water, without the aid of light. That is the expectation to which analogical reasoning leads me; but I beg you once more to recollect that I have no right to call my opinion anything but an act of philosophical faith. With these limitations, Redi's great doctrine of biogenesis appears to me to be victorious along the whole line at the present day."

As regards the hypothesis of xenogenesis, the production of parasites was long a stronghold of its advocates.

"But the splendid patience of helminthologists has succeeded within the last thirty years in tracing every such parasite, often through the strangest wanderings and metamorphoses, to an egg derived from a parent, actually or potentially like itself, and the tendency of inquiries elsewhere has all been in the same direction. It is only in pathology that we find any approximation to true xenogenesis; and it is furnished by the various diseased structures in which, under the influence of certain external conditions, elements of the body, which should have developed in due subordination to its general plan, set up for themselves, and apply the nourishment which they receive to their own purposes. From such innocent productions as corns and warts there are all gradations to more serious tumours; and in the terrible structures known as cancers, the new growth has acquired powers of reproduction and multiplication, and is only distinguishable by form from the parasite worm, the life of which is neither more nor less closely bound up with that of the infested organism. If there were a diseased structure the elements of which were capable of maintaining a separate and independent existence out of the body, it seems to me that the shadowy boundary between morbid growth and xenogenesis would be effaced. And I am inclined to think that the progress of discovery has nearly brought us to this point. The Appendix to the Twelfth Report of the Medical officer of the Privy Council contains an essay 'On the Intimate Pathology of Contagion,' by Dr. Burdon-Sanderson, which is one of the clearest, most comprehensive, and well-reasoned discussions of a great question that has come under my notice for a long time. It contains evidence to show that the active element in vaccine lymph is non-diffusible, and consists of minute particles, not exceeding 1-2000th of an inch in diameter. Two of the most destructive epizootic diseases—sheep-pox and glanders—are also shown to be dependent for their existence and propagation upon extremely small living particles, to which the name of microzymes is applied. An animal suffering from either is a source of infection to others, for the same reason that a tub of fermenting beer is capable of propagating its fermentation to fresh wort. In both cases it is the solid living particles which are efficient, the liquid in which they float and at the expense of which they live being altogether passive. It is a question of immense importance to determine whether these microzymes are the results of homogenesis or of xenogenesis; or, in other words, whether they are capable of arising only by the development of pre-existing germs, or of being the results of conditions operating upon the body in which they are found. A parasite may be stamped out by destroying its germs; but a product of disease can only be annihilated by removing the conditions which give rise to it. It appears to me that that this problem must be solved for each zymotic disease separately. I have dwelt upon the analogy of pathological modifications, as in favour of the xenogenetic origin of microzymes; and I must now speak of the equally strong analogies in favour of the origin of such pestiferous particles by the ordinary process of the generation of like from like. It is a well-established fact that certain contagious epidemic diseases, both of plants and animals, are caused by the growth of minute organisms. The smut of wheat is a well-known example. The common house-fly is frequently destroyed by the growth within its body of a fungus, the *Empusa muscæ*, which, in flies still apparently healthy, is found to exist in the form of minute corpuscles which floats in the blood. These multiply and lengthen into filaments at the expense of the fly's substance, and when they have killed it they go out of its body and give off spores, which, falling upon other flies, germinate, penetrate the skin, and yield the floating corpuscles when they have entered the body. It is only very lately that the true course of events has been made out, and until this was done the case looked much like one of abiogenesis, or at least of xenogenesis. The silkworm has long been known to be the subject of a very fatal contagious and infectious disease, called the *Muscardine*. This is entirely due to the development of a fungus in the body of the larva. But of late years a still more serious disease has broken out among them. Before 1853 a peculiar epizootic, frequently accompanied by the appearance of dark spots upon the skin (whence it was called *pébrine*), had been noted for its mortality. In the year following, 1853, it broke out in the south of France with such violence that in 1856 the silk crop was reduced to a third of the amount which it had reached in 1853. This means not only that the great number of people engaged in growing silk are some thirty millions sterling poorer than they might have been, but also that the looms of Lyons have lacked employment, and that for years enforced idleness and misery have been the portion of a vast population which was formerly industrious and well-to-do. In 1858 the French Government appointed commissioners to inquire into the subject, among whom was M. de Quatrefages. It is interesting to observe that this distinguished naturalist, in his elaborate study of the *pébrine*, arrived at the conviction that it is in every respect comparable to the cholera among mankind. But it differs from cholera in being hereditary, and in being, under some circumstances, contagious as well as infectious. The Italian naturalist, Filippi, discovered in the blood of the affected silkworms a multitude of cylindrical corpuscles, each about 1-6000th of an inch long. These bodies have been named by Lebert panhistophyton, because they swarm in every tissue of the body, and even pass into the undeveloped eggs of the female moth. It has been made quite certain by the researches of M. Pasteur that the *pébrine* is the result of the growth and multiplication of the panhistophyton in the silkworm; and it is obvious that the means of preventing the disease must depend upon the way in which the panhistophyton is generated. If by abiogenesis, or by xenogenesis, within the silkworm or its moth, the extirpation of the disease must depend upon the prevention of the occurrence of the conditions under which the generation arises. But if the panhistophyton is an independent organism, then the indications are totally different. The sole thing to be done is to get rid of and keep away the germs from which it springs. M. Pasteur was led to adopt the latter theory, and he has devised a means of extirpating the disease which has proved to be completely successful wherever it has been properly carried out. Analogous evidence is furnished by the investigations of Professor Lister into the causes of mortality after operations; and it seems probable that the Surgeon who saves most lives will be he who best works out the practical consequences of the hypothesis of Redi."

After touching felicitously upon the practical value in money which the development of Redi's idea has proved to mankind in the industries of silk producing, wine growing, and vinegar making, Professor Huxley thus concluded:—

"And, as to the equivalent of Redi's thought in life, how can we over-estimate the value of that knowledge of the nature of contagious diseases, and, consequently, of the means of checking them, the dawn of which has assuredly commenced. Looking back over only ten years, it is possible to select three (1863, 1864, and 1869), in which the total number of deaths from scarlet fever alone amounted to 90,000; that is the return

of killed, the maimed and disabled being left out of sight. The facts which I have placed before you must leave the least sanguine without a doubt that the nature and causes of this scourge will one day be as well understood as those of *pébrine* are now, and that the long-suffered massacre of our innocents will come to an end. And thus mankind will have one more admonition that 'the people perish for lack of knowledge,' and that the alleviation of the miseries and the promotion of the welfare of men must be sought by those who will not lose their pains, in that diligent, patient, loving study of all the multitudinous aspects of nature, the results of which constitute exact knowledge, or science. It is the justification and the glory of this great meeting that it is gathered together for no other object than the advancement of the moiety of science which deals with those phenomena of nature which we call physical. May its endeavours be crowned with a full measure of success.

(*From our own Correspondent.*)

Liverpool, Wednesday Evening.

The fortieth meeting of the British Association for the Advancement of Science can hardly be expected to receive that popular attention which has fallen to previous meetings. The advance of science has not been less rapid than in former years, the place of meeting is not second to any in the world, and the requirements of science were never more urgent. But the events of the great war shut out from the mind all things which seem minor to itself, and men first ask one of another, even here in the very midst of science, not what new inventions are to be produced, not what are the subjects of lecture, not what men are to fill the presidential and vice-presidential chairs of the sections, but what is the latest news of the war? What does M. Thier's mission mean? what will be done with the Emperor? and where will the Pope seek, and find, a home—in the Leonine city, in Spain, in England? "I tell you," said one of the *savants* to a physiological colleague, when they first met to-day, "I tell you, had you come prepared to carry out a demonstration that you could raise the dead, you would get no attention outside this meeting this year; so, if you want to have a good public hearing, come out with a weapon for killing—a something that will settle a hundred thousand men at once."

This same feeling extends naturally to the press. Yesterday some of the leading English papers, which usually have the longest details of the business of the Association, had not so much as one poor word in respect to it; and the readers of essays have a sort of general warning—none the less forcible because it is not said loudly—that the shorter their abstracts the better for their success. Blow upon blow, moreover, there is the terrible story of the loss of the *Captain*, ranking in interest next to the war.

Liverpool itself does not, at the same time, fail in any way to offer a hearty welcome. The local subscriptions are to-day, we are told, coming in well; signs of open-handed hospitality abound; and the fact that 2400 members have already enrolled their names is a proof of definite success.

Wednesday at the Association—I mean the first Wednesday—is always what may be called a general day. The sections do not meet, and members and visitors lounge about or unite in the reception-room, talk about what will really be the fruit of the meeting, the President's inaugural address, and renew friendly communionship.

Two years ago—viz., at Norwich—a member of our own Profession had the peculiar honour of presiding over the British Association for the Advancement of Science. The president on that occasion was Dr. Hooker. This year another member of our Profession holds the same distinguished place—Professor Huxley occupies the chair. The post is one which is not in the slightest degree likely to be offered to any member of our Profession who is *bonâ fide* in the practice of the healing art—it would probably not even come to one who held, however remotely, to the direct exercise of curing disease—but if a scholar coming from the ranks of Medicine devotes himself absolutely to some one of the kindred sciences—natural history, geology, mathematics, chemistry—he has a chance of reaching the chair; and as many sons of Medicine enter upon the culture of these branches, a goodly number of our brethren are remembered on the day when the officers of the ensuing year are elected. It is not very easy to understand why there should be exception in favour of particular classes of our fraternity. Hippocrates, Galen, Harvey, Young, Cullen, Boerhaave, and William and John Hunter were all Practitioners, and in their turns would have left a seal of history to the presidency of an association of men of science, but in this day they would not even have the chance of melting the wax, much less of affixing the seal.

Enough! We will not find fault, but rather console ourselves with the idea, even if it be a delusion, that practical Medicine is better without any outside distinction; and we will certainly be satisfied that one of our body who does represent, represents us well.

There are already several members of the Profession present in the town—Professors Huxley, Rolleston, Humphrey, Michael, Foster, Crum-Brown; Drs. Brown-Séquard, Richardson, Cobbold, Gilchrist, Sir Duncan Gibb, Sir Henry Thompson; and Messrs. R. Dunn, Flower, Brudenell Carter, and others.

The officers of sections have been elected as follows:—

Section A. Mathematical and Physical Science.—President: J. Clerk Maxwell, M.A., F.R.S. L. and E. Secretaries: Professor W. G. Adams, M.A.; W. K. Clifford, B.A.; Professor G. C. Foster, M.A., F.R.S.; Rev. W. Allen Whitworth, M.A.

Section B. Chemical Science.—President: Professor Henry E. Roscoe, B.A., PhD., F.R.S., F.C.S. Secretaries: Professor A. Crum-Brown, F.R.S.E., F.C.S.; A. E. Fletcher, F.C.S.; Dr. W. J. Russell, F.C.S.

Section C. Geology.—President: Sir Philip de Malpas Grey-Egerton, Bart., M.P., F.R.S., F.G.S. Secretaries: W. Pengelly, F.R.S., F.G.S.; Rev. H. H. Winwood, M.A., F.G.S.; W. Boyd. Dawkins, F.R.S., F.G.S.; G. H. Morton, F.G.S.

Section D. Biology.—President: Professor G. Rolleston, M.A., M.D., F.R.S., F.L.S. Vice-Presidents: John Evans, F.R.S., F.G.S., F.S.A.; Prof. M. Foster, M.D., F.L.S. Secretaries: Dr. T. S. Cobbold, F.R.S. F.L.S.; Thomas J. Moore Cor. M.Z.S.; H. T. Stainton, F.R.S., F.L.S., F.G.S.; Rev. H. B. Tristram, M.A., LL.D., F.R.S.

Section E. Geography.—President: Sir Roderick I. Murchison, Bart., K.C.B., D.C.L., LL.D., F.R.S., F.G.S. Secretaries: H. W. Bates, Assist. Sec. R.G.S.; Clements R. Markham, F.R.G.S.; Albert J. Mott; David Buxton, F.R.S.L.

Section F. Economic Science and Statistics.—President: Professor Jevons, M.A. Secretaries: Edmund Macrory, M.A.; John Miles Moss, M.A.

Section G. Mechanical Science.—President: Charles Vignoles, C.E., F.R.S., M.R.I.A., F.R.A.S. Secretaries: H. Bauerman, F.G.S.; P. Le Neve Foster, M.A.; J. T. King, C.E.

The exertions of the Medical men of Liverpool to make the meeting a success are spoken of most warmly, and the intended *soirée*, to be given on Saturday by the President of the Medical Institution, is the subject of general comment. The *soirée* will, it is believed, be one of the grand features of the occasion, and will represent art not less than science. The Philharmonic Hall, a most beautiful building, will be decorated with flowers; and a band, under the direction of Mr. Streather, will perform during the evening. On a series of temporary screens and cabinets will be exhibited a vast collection of Japanese enamels, lac-work, and porcelain, flanked by a great variety of ancient and modern Oriental china, carving, and textile fabrics. Opposing and contrasting with these will be a large trophy of English pottery, illustrating the development of the art from an early period, and giving especial prominence to the productions of the Herculaneum and old Shaw's-brow Potteries of Liverpool. A number of paintings and water-colour drawings from collections not generally accessible will alone require more than the evening for study. Of the greatest interest in this department will be a series of works by Robert Tonge, a Liverpool artist, who died at an early age fifteen years ago. Visitors will be able to compare him with Dewint, Copley-Fielding, or David Cox, and will be surprised to learn that these notable men are equalled in grasp of effect, knowledge of detail, technical skill, and versatility, by this *Pictor ignotus*. The sister art of line-engraving will be particularly well represented by a series of proofs and fine impressions of prints by the most celebrated masters. In the centre of the hall will be shown a series of antique gems from the superb private collection of Mr. Mayer—bronzes, statuary, and curiosities. Two rooms will be entirely devoted to microscopes, one to a series of brilliant electrical experiments, and another will be set apart as a Medical museum.

I have waited to hear Professor Huxley's address before sending off this letter. It is too late to comment on it to-night;

and indeed, if commentary should begin, it is very difficult to see where or how it would end. Let it be sufficient to say this week that the address was delivered to one of the most brilliant audiences we remember to have seen; that the subject of the address was practically for and against the theory of spontaneous germination; that, with one or two exceptions, it was admirably constructed; that it was simply and forcibly rendered; that in a general sense it was most conclusively inconclusive; that it was received as representing a fair and, we may even say, judicial summary of evidence on one of the most difficult problems in science; and that Lord Derby moved, and the Mayor of Liverpool seconded, a vote of thanks to the learned Professor, which was accorded amidst thrilling and prolonged applause.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. VI.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

The Trial of Cooper v. *Wakley—The Condition of the Profession at the Time—Persecution of the Press by the Government—Unpopularity of Sir James Scarlett in Consequence—Probable Effect on the Result of the Trial—Lord Tenterden.*

In order that the universal interest which the trial of Cooper *versus* Wakley excited in the public mind may be understood, it is necessary to take a glance at the position of the Profession and of society in general at the period. The trial had undoubtedly great political as well as great Professional importance. It had long been felt that the avenues to Professional advancement were closed to the "rank and file." No matter what a man's talents and acquirements might be, he had little or no chance of advancement at a Hospital, except through family or money influence. All the prizes in the Profession were monopolised by those who could pay for them, or who were fortunate enough to have friends at court. The apprentice of the Hospital Surgeon paid a very large premium for his indentures, and, as a rule, it was understood, that he was to be placed on the Hospital staff as part return for his money outlay. This gave rise to a system of nepotism of the most objectionable character. Hospital Surgeons were selected, not from the mass of the Profession, but from the private pupils and relations of the "staff." To such an extent was this carried in the united Hospitals of Guy's and St. Thomas's that at the period referred to (1828) the Surgeons and Assistant-Surgeons were, with two or three exceptions, the apprentices and relatives of Sir Astley Cooper. In this particular instance it must be admitted that the system had not worked disadvantageously to the interests of the poor or of Surgery itself. With the solitary exception of Mr. Bransby Cooper, there was not a single gentleman connected with the Surgical staff of these Hospitals who had ever been publicly arraigned as "incompetent." It is true several of them had been subject to adverse criticism in the pages of the *Lancet*, but no one had ever presumed to charge them with "incompetency." Difficult, and what are called "unfortunate," cases had occurred to most of them, and these had been held up to public odium and public reprobation. But the manifest injustice and unfairness of the comments made upon their conduct sufficed to defeat the efficiency of the attacks of their opponents. How could it be otherwise when men such as Aston Key, John Morgan, and Thomas Callaway were in office at Guy's, and Joseph Henry Green, Benjamin Travers, and Frederick Tyrrell at St. Thomas's? Still, in spite of the really great and just fame of these gentlemen, the system of breeding in-and-in was unpalatable to the Profession, and was the source of much heart-burning and jealousy amongst the great body of students of the Hospitals in question, and of the Hospitals in London generally. To add to the discontent prevailing, there had been, shortly before (1827), an unseemly quarrel at the great Hospital of St. Bartholomew's, in which Mr. Abernethy did not bear an enviable part. It was sought by him to make certain arrangements with respect to the Surgical staff, which would serve his own personal interest but would be detrimental to the interest of some of his junior colleagues. Hence his quarrel with Mr. Lawrence, which culminated in the establishment by this gentleman of a rival Medical school; of his attack upon Mr. Stanley, and of his incomprehensible acts of injustice to Mr. Skey. At this time, too, the establishment of what was then called the "University of London" attracted increased attention to the system of nepotism. The school of "all the talents" had its influence in checking a vicious mode of election to high offices in the Profession. The announcement of the names of the Professors of this Institution startled the Profession by the fact that most, if not all but one of them, were "outsiders;" were not, in fact, connected with any of the large endowed Hospitals, but all were of high and deserved distinction. Pattison, afterwards Jones Quain, the most distinguished Anatomist of the time; Samuel Cooper, the author of the renowned "Surgical Dictionary;" Elliotson, the most accomplished Physician of the period; Anthony Todd Thomson, whose "Dispensatory" had a world-wide reputation; Turner, whose "Chemistry" had no worthy rival in this country; Robert Carswell, the most profound Morbid Anatomist in Europe; and Robert Grant, the "English Cuvier," were on the list of the Medical staff of the new Institution. This fact, made more impressive by the high scientific character of the Council of the University, had a powerful influence on the mind of the Profession and of the public. Nor was the fame of the private schools for teaching Medicine and Surgery in the metropolis without its effect. Amongst others, Joshua Brookes, and the Graingers and Carpue for Anatomy; Wardrop and Lawrence for Surgery; Armstrong, Clutterbuck, and Marshall Hall for Medicine; Pereira for Materia Medica; and Brande and Faraday for Chemistry; were all connected with "private schools." A great portion, too, of the leading practice, particularly in Medicine, was in the hands of the "outsiders." Can it be wondered at, then, that the trial of Cooper *versus* Wakley should have attracted so much interest in the great body of the Profession itself?

But the social and political state of society at the time of the trial had a marvellous influence in giving importance to the proceeding. Two questions were deeply agitating the public mind, both of which were identified with great changes in the body politic—the Roman Catholic Disabilities Bill, and the great Reform Bill. The agitation of these questions had produced an amount of antagonism in political parties never surpassed in magnitude—it might be said in "ferocity"—at any period of our history. The object of these measures was the abolition of what are called vested interests, and of giving an impetus to intelligence and reform. But there was another circumstance connected with the trial which, in my opinion, so far as its results are concerned, was far more powerful than either of the preceding. The ministry of the day—that of the Duke of Wellington—was opposed to all unshackling of the fetters of the masses. The Attorney-General of this Government was Sir James Scarlett, who had seceded from the Whigs. It was the misfortune of Sir James, during his period of office, to file more criminal informations against the press than did any of his predecessors or his successors. One morning paper in particular, conducted with great ability, which was inimical to the Government, succumbed entirely under a succession of these informations. The criminal proceeding has always been regarded with distrust and alarm by Englishmen; and it is fortunately now only resorted to in the most serious offences against society and the Government. It is certain, however, that Sir James Scarlett had become the object of general dislike, and it was common when speaking of him to characterise him sneeringly as the *Whig* Attorney-General. This was the man chosen by Mr. Bransby Cooper as his chief advocate. Not one will deny to this eminent lawyer the possession of unrivalled powers of rhetoric—of a knowledge of the law exhaustive and profound, and, as an advocate in addressing a jury, without an equal. But he had contracted views upon great public questions, was no friend to the "Fourth Estate," and was apt to show temper when he should be cool, and to take a legal rather than an equitable view of the case he had to sustain. We think Mr. Bransby Cooper, in selecting him for his "leader," made a grave mistake, looking at the temper of the times and the proclivities of jurymen at a period when there was a strong disposition on their part to uphold the liberties of the press, and to view the Attorney-General in no favourable light. Associated with Sir James were the late Sir Frederick Pollock and Mr. Scarlett. I cannot help, in going over the report of the trial after so long an interval, being struck with the calm, unemotional cross-examination of Mr. Pollock, with the excited manner of his great leader. There was a reason for this, which will appear presently. Sir James, as a personal friend of Sir Astley Cooper, exerted almost superhuman efforts on behalf of his client, but he

was certainly not fortunate in the way in which he conducted the case. The defendant, who had determined to conduct his own defence, availed himself, however, of the assistance and advice of the foremost advocate of the rights and liberties of the people—Henry Brougham—and of the most rising lawyer of the time—Fitzroy Kelly, the present Lord Chief Baron. Of all who took an important part in this memorable struggle, we believe the only one remaining is Sir Fitzroy Kelly. The plaintiff and defendant, the counsel on both sides, the witnesses, the judge, all are gone; the witness who saved the defendant (Mr. Alderman Partridge) having died a year or two since, at a green old age, at Colchester.

Public expectation had been raised high by newspaper paragraphs respecting the coming trial. It was known that the Attorney-General would represent the plaintiff, and it was expected that Brougham would defend, and address the jury. But it soon transpired that Mr. Wakley would be his own advocate. Many thought at the time that this was most unwise and presumptuous; but, as the sequel proved, it was otherwise. Mr. Cooper did well in bringing the action for libel in the ordinary form; for though he might, I believe, have moved for a criminal information successfully, he would have to some extent blinked the inquiry and have raised the suspicion that he was afraid to meet the charges advanced against him. It is, moreover, likely that Sir James Scarlett was opposed to a criminal information, recollecting as he did the odium which attached to his name with respect to that mode of proceeding. In stating that the jury was more or less influenced by Sir James's attacks upon the press, of course I do not intend to impute any dereliction of duty or of honour to them. They were a body of most respectable gentlemen; but the advocate went too far, and overshot his mark. The jury did not fail to see this, and even the judge almost reproved the Attorney General for calling upon the jury to show their "indignation" in the amount of damages. I shall refer to this hereafter. In mentioning the judge, however, I cannot loose the opportunity of expressing my admiration of the way in which he conducted the trial; though advanced in years, and suffering from ill-health, Lord Tenterden was most urbane, patient, painstaking, and impartial. He bore with extreme good nature, and only gently reproved, the mistakes in putting questions, etc., into which the inexperienced defendant naturally fell; he himself occasionally examined witnesses on technical points which he did not consider clearly made out to the jury. His summing up was a model of impartiality and ability, and I have reason to believe, as I shall state hereafter, but for the manner in which Lord Tenterden addressed the jury, they would actually have found for the defendant. After notice of action had been served on Mr. Wakley, he took immediate steps for his defence; but it is a singular fact that he was so unprepared that, when the day of trial was fixed, Mr. Brougham moved that the cause should be postponed for nearly six weeks, on "account of the absence of important witnesses." This was opposed by Sir James Scarlett, but granted by Lord Tenterden. Now, Mr. Wakley was not prepared with the witnesses who rendered him most service at the trial; nor was he at the time of applying for adjournment aware that he could procure them. Indeed, strange as it may appear, Mr. Alderman Partridge—the "only witness, as it appears to me," said Sir James Scarlett, "who from his science and education seems entitled to any credit at all"—was not subpœned until the very night previous to the trial. But the defence mainly rested on his evidence, which was given as became a Surgeon—clearly, and with gentlemanly address and manner. It is certain that his evidence had a most important influence on the jury. Even in his cross-examination by Sir James Scarlett his manner was so cool, so self-possessed, and showed so much self-respect, that the great advocate had the worst of the encounter. At length, on the morning of December 12, 1828, commenced a trial for libel, in which, for the first time in this country, the defendant opened the case and had the reply.

Medico-Chirurgical Society of Glasgow.—At the meeting of this Society held on Friday, September 2, in the Hall of the Faculty of Physicians and Surgeons, the following gentlemen were elected office-bearers:—*President:* Dr. James Adams. *Vice-Presidents:* Dr. Steven, Dr. James Stewart. *Council:* Dr. Richmond, Paisley; Mr. M. H. Gibson; Mr. Torrance, Airdrie; Dr. H. Thomson; Dr. James Gray; Mr. Robert Grieve; Mr. Pollock, Mearns; Dr. R. Renfrew. *Secretaries:* Dr. R. Perry, Dr. Alexander Robertson. *Treasurer:* Dr. H. R. Howatt.

REVIEWS.

Strong Drink and Tobacco Smoke. By Henry P. Prescott, F.L.S. 1869. London: Macmillan and Co.

Recherches Physiologiques et Cliniques sur le Nicotine et le Tabac. Par le Docteur A. Blatin. 1870. Paris: Germer-Baillière. London: Williams and Norgate.

Physiological and Clinical Researches on Nicotine and Tobacco. By Dr. Blatin.

Except that both these works treat of tobacco, they have nothing else in common. Mr. Prescott's book is the development of a lecture, in which he endeavoured to popularise some of the most important parts of vegetable physiology—namely, plant-structure, life, and growth—and as it mattered little what plants should be employed as illustrations, he selected those which form the basis of our "Strong Drink and Tobacco Smoke," as being, in all probability, specially interesting to most of his audience. The author only lived to see the first sheet through the press, and the editorial charge of the remainder was conducted by his friend Professor Huxley, who contributes a brief, but interesting, biographical sketch of the writer. Passing over the chapters on barley and hops, we proceed to chapter vii., which treats of "Tobacco and some other Leaves." The ordinary and microscopic characters of the tobacco leaf and of such leaves as are constantly used in its adulteration—as those of burdock, dock, chicory, comfrey, and Jerusalem artichoke—are clearly described and beautifully illustrated—the ten plates with which the volume terminates being by no means the least valuable portion of it. It is worth knowing that most of the tobacco leaves of commerce—including the American, German, and Dutch—are without stalks, being attached to the stem by the mid-rib or large central vein; and that the margins of all tobacco leaves are *entire*—"that is, even and unbroken—unlike the borders of other leaves, cut into toothed notches, or into rounded segments, or into larger segments, like the dandelion leaf;" so that if we found in our cigar a portion of a leaf either possessing a divided margin or a stalk, we should safely conclude that we had an adulterated specimen. Smokers anxious to make sure of the genuineness of their tobacco will learn from these pages how to make microscopic examinations with low and high powers; and a reference to the plates will most materially facilitate their investigations. We may especially direct attention to the "invaluable and infallible evidence" afforded by the minute hairs with which the surfaces of the leaves are studded, and which are so delicate and pliable as to elude the grinding action of the snuff-mill. The author concludes with a few remarks on the ordinary adulterations of snuff, as starch of various kinds, pea-meal, bran, sawdust, malt rootlets, fustic, oxides of iron and lead, and ground glass; and to these he adds an adulteration detected by himself "while serving in the lower grades of the Inland Revenue hierarchy," and examining high-dried snuff—namely, the acorn-cup of the Valonia oak, growing on the shores of the Mediterranean, which is imported for the benefit of tanners.

Take Mr. Prescott's work as a whole, we can strongly recommend it as containing much valuable matter, put together in a very pleasant, readable form.

Dr. Blatin's book is of a very different character, being nothing more or less than a protest, from beginning to end, against the use of tobacco in any form. In fact, if we are not mistaken, he was (for he scarcely lived to see his last sheets through the press) the president and prime mover of the French Anti-tobacco Association. After a discussion on the physiological action of nicotine, we come to his "Clinical Researches on Tobacco," the value of which would have been much augmented if the author had undertaken the inquiry in an unbiassed state of mind. Notwithstanding his prejudices, the work contains much valuable matter. We cannot honestly say that we very much enjoyed our first cigar; but, although nearly half a century has elapsed since we smoked it, we feel tolerably confident that if it had produced the dire results depicted by Dr. Blatin, our first cigar would also have been our last. The noxious weed is scarcely placed between the lips before, according to our author, the countenance becomes pallid and the mouth overflows with saliva, while the hands and forehead are bathed in a cold perspiration. Fearful pain in the head then comes on. Seized with tremors, faintness, and vertigo, the wretched young smoker staggers like a drunken man, and, possibly, falls to the ground with all the symptoms of cerebral congestion, followed by temporary paralysis. The heart beats

with diminished energy, and its action becomes irregular. The respiratory movements become abnormally slow and difficult. There is a burning pain, accompanied by a sensation of constriction, in the region of the stomach; and if the poisoning has reached a certain degree of intensity, the chest feels as if it were encircled by an iron band, and every act of respiration excites intolerable agony; while the heart almost ceases to act, and asphyxia seems imminent. Nausea then comes on, accompanied by colic-like pains running along the length of the small intestines, and these symptoms are followed by vomiting, the evacuation of copious serous, black, fetid discharges from the bowels, an abundant secretion of urine, and profuse sweats, all of which are attempts on the part of nature to eliminate the poison. The prostration of the vital powers may be so great as to occasion relaxation of the sphincters, giving rise to dilatation of the pupils, and the involuntary discharge of urine and fæces.

After having drawn this terrible picture, the author admits that it is only rarely (we should think *extremely* rarely) that a smoker's first attempts at enjoyment are followed by *accidents aussi redoutable*. He quotes, however, the case of a youth, aged 14, who, being advised to try a pipe to relieve his toothache, smoked a packet of 15 centimes worth (less than three-halfpenny worth) of tobacco, fell to the ground insensible, and expired in the course of the evening.

In the concluding portion of his work, which treats of Chronic Nicotism, the author attempts to demonstrate "the fatal effects of tobacco on the whole organism." We admit that he has made out a very strong case against the use of the weed in any form; and, although we are not inclined to adopt his extreme views, we trust that his essay may have the effect of directing the attention, both of the Medical profession and the public, to a very important hygienic subject.

NEW BOOKS, WITH SHORT CRITIQUES.

Snuff-taking, its utility in preventing Bronchitis, Consumption, Etc. By John C. Murray, M.D., F.A.S.L. Churchill and Sons.

*** A reprint in an elegant form of a very amusing and exhaustive paper read before the last meeting of the British Medical Association at Newcastle. The author has given in detail an account of the "virtues" of snuff-taking, which, in his eyes, are as remarkable as the virtues of tar-water were to Berkeley.

> Manners and candour are to Benson given;
> To Berkeley every virtue under Heaven.

He combats with much ingenuity, and by reference to numerous authorities, the objections against snuff-taking. But surely there is another point of view from which we might look at the subject: inveterate snuff-takers are generally very dirty people, and do not confine the application of the snuff to the nasal organ alone; even if they did, they would still render themselves liable to the reproach conveyed in the old epigram—

> If snuff be used to clear the head,
> As many people say,
> How often must the nose be fed
> To clear the mud away!

Dr. Murray's little work is, however, most entertaining and instructive. It is entitled, whether with respect to its learning or its style, to be placed in the same category as Wadd's "Comments on Corpulency," or Macknish's "Philosophy of Drunkenness"—no small praise, but well deserved.

A Catechism of Health, adapted for Primary Schools. By Dr. J. H. Bridges, Poor-law Inspector. G. Truelove, Holborn.

*** Twopennyworth of excellent advice for all classes of the community. It conveys in plain and simple language a mass of information of the most vital interest to all.

An Example to Us.—Dr. Von Schmidt has lately been tried before the Correctional Tribunal at Paris on the double charge of practising without a diploma, and selling secret remedies. He professed to be able to cure cancer, and obtained some temporary notoriety in consequence of being called to attend Count de Goltz, the Prussian Ambassador. His secret remedies turned out, on examination, to be turpentine, spermaceti, and aloes, to which he had given high-sounding and fantastic names. He was found guilty on both charges, and sentenced to two fines, one of 50 francs, and one of 1000 francs. He had been convicted previously at Brussels, but had escaped the punishment by flight.

FOREIGN CORRESPONDENCE.

LETTERS FROM THE SEAT OF WAR.

(*From a Special Correspondent.*)

Ramilies, August 28.

This favoured spot is within hearing of the guns of Metz, and consequently is within the inner circle of the war operations. The journey hither from Saarbruck has occupied four whole days and nights, including twenty-eight consecutive hours on an open railway truck in very rainy weather. The street of the little town is full of soldiers, waggons, and mud, and every house is a temporary barrack. The court-yards of the houses are in the condition which is familiar to all who have seen the effects produced by a large and careless migratory population. All the well-to-do inhabitants have fled at the approach of the Germans, and left nothing but a few blouses, so that the invaders have to make themselves as comfortable as they can in their empty dwellings. The only dealers in anything are two or three Jews, who share with eagles, special reporters, and blow-flies the characteristic of being gathered together wherever the carcass may happen to lie. Three at least out of the four are probably useful in their several spheres, and are by no means to be complained of.

There are several Hospitals here containing men too severely wounded to be sent further to the rear. In one of them, which is managed by the Knights of St. John, the state of the wards is anything but good. Too many beds, and little or no air—the old story. The house is a large one, with garden-room, and plenty of trees, and there would be no difficulty in making sheds, and covering them with boughs in a few hours. These rooms contrast strongly with the excellent wooden buildings in the gardens of the "Orangerie" at Darmstadt, where there is no Hospital atmosphere at all.

Almost the same praise can be given to the Hospital in this village superintended by Professor Benecke, of Marburg (I am not quite sure whether this is his correct description), which shows infallible signs of good management. Here there are a large number of severe wounds, many of them interesting, and many cases of resection. One ward, containing about a dozen cases of bullet wounds of the face and head, is especially remarkable.

Pierrevillers, near Metz, September 4.

The Prussian field Hospital system is, as I have before mentioned, very perfect in theory, but it appears to break down a little in practice. The supply of tents is exceedingly scanty, and houses near the field of battle are commonly used for Hospitals, sometimes with very unfavourable results. An old château, used as a farm-house, a few miles from this place, is a melancholy example. The buildings stand round an enclosed court, on the surface of which may be discerned several dung-heaps, faggot-heaps, broken waggons, large pools of fetid water, and the mouth of the well. The wounded were crowded into the rooms of this wretched place, and suffered consequently from gangrene and pyæmia. At length a wooden building, imperfect in many points, but still a great improvement, has been put up, and the sick are doing better. This is only a specimen of a common state of things. Healthy granulations, or union by first intention, are things obviously not to be looked for under such conditions. At the same time, it is quite clear that there is at present no lack of Surgeons at the front. The slightly wounded, and all who will bear transportation, are so speedily drafted off, that no great accumulation takes place here, and the army Medical staff is quite numerous enough to take care of those who remain. But the German army Surgeons do not display the readiness of resource under difficulties that characterised the Americans, nor have they the elaborate provision for emergencies which the French make before-hand. A French two-wheeled ambulance cart and a double mule-litter, which fell into the hands of the Germans in a sally two days ago, are examples of a degree of inventiveness to which the conquerors are strangers.

The transport of the wounded is one of the points in which the weakness of the Medical department is shown. The railways carry off vast numbers, and at every station the inhabitants provide refreshments and nursing; but the men all lie on straw on the floor of baggage-waggons, and the greater part of them are carried about in the ordinary country waggons, which are of the rudest construction, and entirely without springs. The ambulance waggons also are of a heavy and clumsy pattern. At Berlin there are plenty of diagrams

and prints of the newest and best contrivances, but at the extremities of the system the vital energy fails, and things remain as they were years ago. The slightly wounded can be carried by these rough methods with impunity, but when it comes to the turn of those who have undergone severe operations some better means ought to be adopted. A great deal of suffering has no doubt been already inflicted, and much more still remains to be endured, unless some improvements are made in the transports of the sick and wounded.

There has been very little cannonading here for three days, and the last attempt of the French to break out was a complete failure; so that everybody supposes that the capture of Metz is only a question of time. It is to be feared that a large amount of sickness will be found inside.

Great events are no doubt passing elsewhere at this time, but you know more of them in England than we know here.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

September 6.

A special meeting of the Liverpool workhouse committee was held in the board-room, Brownlow-hill, on the 31st ult., to confer with the Medical gentlemen who hold office under them as to the best means to be adopted to limit the spread of the present epidemic of relapsing fever. Dr. Gee, Physician to the Fever Hospital, Dr. Kirkpatrick, who has charge of the Kirkdale Hospital, and eleven of the twelve district Medical officers were present. The particular point on which an opinion was asked by the committee was as to whether it was desirable that some of the cases of fever should be treated at the patients' home, so as to relieve the public institutions from some of the great pressure to which they were, and still continue to be, subject; or to afford additional accommodation, either by the erection of sheds, or some other plan to be decided on by the committee?

The opinions were very strongly against home treatment, as being decidedly calculated to extend the limits of the fever. One gentleman, Dr. De Zouche, had sent as many as twelve or fourteen persons from a single house, and he was not aware of a single street in his district, between Addison-street and Great Crosshall-street (comprising some eight or ten streets, in the lowest part of the town), in which fever did not exist. The persons attacked were for the most part poor, filthy in their persons and homes, and of drunken and improvident habits. He also drew attention to the fact that the houses in courts in his district were unsupplied with receptacles for refuse matter, which remained, therefore, heaped up in the public way as so many centres of infection until removed by the scavengers; and to the ill effects resulting from the want of ventilation and light that necessarily follows from the extreme narrowness of many of the courts, and from their being completely built up at the end.

Dr. Prytherch drew attention to the striking contrast between his private and parochial practice. In the former there were very few cases, while in the latter they were exceedingly numerous, and he attributed the difference to the utter disregard of personal cleanliness among the poorest classes, which he said was never so marked as at present.

Dr. Gee seized the opportunity of urging on the committee the importance of having a convalescent Hospital in the town, to which at least the children might be sent.

As the result of a discussion which ensued, after the opinions of the Medical officers had been given, an order was given for the immediate erection of a shed for Hospital purposes at Kirkdale, at a cost of 345*l*.

This shed, which is now nearly completed, will be 155 feet long, 25 feet broad, and 12 feet high at the gables. There are 13 windows at each side, and 2 at each end, so that there will be abundance of light; and in addition to the ventilation by windows and doors, of which latter there are two, plentiful currents of air will circulate beneath the flooring, and a clear space of three inches at the roof-angle (protected from rain by a raised covering) will also facilitate the escape of foul air. The shed is designed to accommodate fifty beds.

The rapid increase of the epidemic will be seen from the fact of there being 104 more cases of fever under treatment at the various institutions on Saturday, the 3rd instant, than on the previous Saturday, notwithstanding that the discharges have for some time past been comparatively numerous. The actual numbers on the 3rd inst. were as follow:—Brownlow Hill, 300, of which 284 were returned as relapsing; Kirkdale, 432, of which 431 were relapsing; and Ashfield, 461, all of which were relapsing. The total number of fever cases under treatment on that day was therefore 793.

GENERAL CORRESPONDENCE.

PROFESSOR NEWMAN AND THE CONTAGIOUS DISEASES ACT.

Letter from Professor Newman.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have this day received from a friend a copy of your *Gazette* of August 20, in which (p. 218) Dr. Rumsey makes against me statements fundamentally false. He says:—"Professor Newman . . . . . narrated in the public prints a horrible story, for which, when pressed, he was unable to give the slightest authority, and which turned out to be a pure fabrication. Yet for this he made no apology."

I call on Dr. Rumsey to specify in what public prints I have narrated any horrible story. It is wholly untrue. But I do not pretend to have any doubt whence the accusation comes; for Mr. Berkeley Hill attacked me in a Bristol newspaper some time back, and I fully replied there. I had made no *public* statement whatever; I only made a *private* statement to Mr. Berkeley Hill. I made it on the authority of a person who, when asked, refused to allow his name to be given to the public, because he feared the enmity of powerful persons. On this account his correspondent withheld the statement from the public; so Mr. Berkeley Hill, if he disbelieved the statement, had nothing to complain of. Whether it was true or false, I was not responsible; but I entirely believe it. There was nothing to retract or to apologise for. Moreover, I regard it as absurdity and hypocrisy in any to uphold laws which punish a woman for refusing to submit to an outrageous indignity which may be a physical torture, and then to treat it as a monstrous fiction that any woman *resists* the infliction—which is the "horrible story" alluded to.

Nor is it possible that any such examination into the story ever took place, as Mr. Berkeley Hill pretended, and that (to use Dr. Rumsey's phrase) it turned out to be a pure fabrication. For when Mr. Hill wrote to me to demand details in order that inquiry might take place, I could make no answer but that I had returned the letter to its owner, who would select his own time and mode of making it public. But, as I have said, he never made it public. The Admiralty had not the means of inquiry which Mr. Berkeley Hill knew to be necessary. Two friends had informed me months ago that a calumny against me was in circulation, but as the prints never came before my eye, I never had an opportunity of refuting it—not but that I think that to have answered Mr. Berkeley Hill *once* in the Bristol paper was enough. If the supporters of the Contagious Diseases' Acts are so deficient in argument that they greedily believe falsehoods against their opponents, I, for one, must try to bear it patiently, being well assured that their bad cause will in due time cover them with shame.

August 30. I am, &c. Francis W. Newman.

POOR-LAW MEDICAL REFORM.

Letter from Dr. Joseph Rogers.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you permit me, through your columns, to remind my Professional brethren interested in this important question that Dr. Brady has resolved, aided by a distinguished member of the House of Lords, to introduce a Bill in the next session of Parliament, having for its object a very considerable reform in the administration of Medical relief to the poor, and largely affecting the status of Poor-law Medical officers.

In order to strengthen his hands in every possible way, I would appeal to all my brethren, who are in a position so to do, to forward me a statement of any facts which they may consider useful for the demonstration of the inefficiency of the present system, whereby vast sums of money are yearly squandered in dealing with the consequences of sickness, which, applied to its prevention, would result in an enormous saving to the ratepayers. In using any such information, the names of the contributories will be, in every case, withheld, unless distinct permission to publish them be given.

As it is most desirable to collect any such information

without delay, I would urge such gentlemen as are willing to assist to communicate with me as early as possible.

I am, &c. JOSEPH ROGERS.

33, Dean-street, Soho, September 12.

HELP TO THE SICK AND WOUNDED.

LETTER FROM LIEUT.-COL. R. L. LINDSAY.

[To the Editor of the Medical Times and Gazette.]

SIR,—The amount of work devolving upon the very small number of members of the Committee of the Society in Aid of the Sick and Wounded at present in town is so large that it is almost impossible to reply to all the inquiries which are daily addressed to this office. May I therefore request that you will kindly inform your readers that the qualifications of Medical gentlemen desirous of offering their services to the Society should be a thorough practical acquaintance with Surgery, and a good knowledge of either German or French. According to all the information received from the belligerents, a conversational knowledge of one of those languages is indispensable. It is further necessary that all Surgeons who volunteer their services should accept office for not less than one month, and that they should consent to act under the direction of the officers of the French or German armies, with whom they may be associated.

The gentlemen who are sent to the foreign Hospitals or to the seat of war by the Society give their services gratuitously, but the Society advances them £1 per day for their expenses with the understanding that any surplus should be devoted to the benefit of the poor sufferers with whom they are brought into contact. I also add the list of articles which our Medical committee have recommended to be sent out, and which the letters received from abroad have proved to be as acceptable as they were expected to be:—

Surgical Appliances.

Amputating instruments. Bullet extractors. Forceps and tenacula. Bone-nippers of various sizes and shapes. Pocket-cases of instruments. Bistouris. Syringes. Tourniquets. Spray-producers. Subcutaneous syringes. Splints of all sizes. Lint. Rollers of cotton, linen, or flannel, with the length marked upon each. Waxed silk thread. Air and water cushions. Ice-bags. Waterproof sheeting. Gutta-percha tissue, and in the piece. Oil-silk. Clean linen rags.

Medicines.

Opium in all forms. Opium in pills, one grain in each, put up in small bottles, each containing four dozen pills. Morphia in pills, one quarter grain in each, put up in small bottles, each containing four dozen pills. Laudanum, in 2-oz. bottles. Liquor ammoniæ, in 2-oz. bottles. Sal volatile, in 8-oz. bottles. Nitrate of silver, in cases. Chloroform, 1 lb. in each bottle. Hydrate of chloral, in 2-oz. bottles. Carbolic acid, Condy's fluid, or permanganate of potash. Chlorinated lime and soda. Sulphate of quinia, in bulk or in pills, two grains in each, and put up in bottles, each containing four dozen. Effervescing salines. Oxide of zinc. Strapping.

The medicines should be distinctly labelled in Latin and English, and the dose stated in each case.

Food.

Concentrated meat essences of all kinds. Liebig's extract of meat. Compressed and preserved vegetables. Arrowroot. Corn Flour. Coffee. Cocoa. Biscuits. Condensed milk. Syrups. Vinegar.

Ale, stout, sherry, port (in pint bottles).

Sundries.

Tin pannikins, for half-pint and one pint, made to fit into one another for convenience of packing. Enamelled plates, dishes, and basins. Spoons. Zinc buckets. Knives and Forks. Soap. Pocket combs.

Hones for sharpening knives.

Hand-lanterns, for use with wax candles.

Pillow-cases, partly open at one end, and from 2 to 3 feet by 1½ feet Sheets. Blankets. Jerseys. Drawers. Socks. Slippers.

Hospital marquees, empty or completely fitted out.

In conclusion, I would add that gentlemen who wish to volunteer as Surgeons or dressers are required to fill up a certain form, copies of which may be obtained on application at this office, after which a personal interview between the hours of 2 and 3 p.m. is requested. I am, &c.

R. L. LINDSAY,

Lieut.-Col. and Chairman of the Committee.

2, St. Martin's-place, September 6.

NEW INVENTIONS.

BUCKLE'S FLUID EXTRACT OF BARK.

ALL Practitioners know that quinine does not represent the full virtue of Cinchona Bark, and that there are cases in which the bark is full of efficacy, whilst the alkaloid is comparatively powerless. Such are cases of very profuse suppuration, of spreading cacoplastic inflammation, scrofulous, erysipelatous, leuchangeitic, and the like; scrofulous corneitis, carbuncle, boil, and some cases of eczema to wit. The objection to bark is the woody matter, and the inevitable loading of the stomach whilst "throwing in the cortex," as the old Practitioners used to say. Husham's tincture, the common tincture, the solid extract of bark, the liquor cinchonæ of Battly, and its representative in the British Pharmacopœia, the extractum cinchonæ liquidum, all bear witness to the anxiety of the Pharmaceutist to secure a preparation containing not merely the antiperiodic but the antiseptic, analeptic, and astringent virtues of the bark. Mr. Buckle, whose medicinal and alimentary preparations are well-known, has now entered the lists. His principle is that no ingredient in the bark is worthless; and he gives *all* to the Practitioner in his new liquid extract, which may be designated cinchona bark minus its woody fibre. Buckle's extract differs from that of the Pharmacopœia, inasmuch as it is turbid when cold, like the decoction, from the presence of extractive which cold water will not hold in solution, and it is slightly acidulated with sulphuric acid, which is employed to dissolve some of the extractive insoluble in mere water. It well deserves trail on the grounds of efficiency and economy.

A DRESSING-CASE FOR A HOSPITAL NURSE.

DR. KENDRICK, of Warrington, has forwarded us a very complete, useful, and cheap dressing-case for a Hospital nurse. The case itself is made of a square of wash-leather, and it contains a pair of scissors, a pair of forceps, an ointment knife, a flexible probe, a camel's-hair pencil, a penknife, a sliding pencil, three safety pins, three needles, one skein of thread, Surgeon's lint, carded cotton, and a bottle containing six opium pills (one grain each). The cost of the whole is rather less than two shillings. Dr. Kendrick has constructed the case for the use of nurses in the war, and the wrapper bears an inscription in English, French, and German that it is intended for the aid of the wounded.

OBITUARY.

JOHN BACOT, ESQ.

MR. BACOT was a member of a good old family, which, according to the authorities of the Herald's College, is a branch of the Bagots, and entitled to the same armorial bearings. They settled in the West of France when those provinces were under the Anglo Norman rule; but at the Revocation of the Edict of Nantes, one of them made good his escape to England, having, according to family tradition, been smuggled across sea in a cask. His grandson was William Bacot, apothecary, who practised in John-street, Golden-square; and was succeeded by his son John Stephen, whose second son was John Bacot, the subject of the present notice.

John Bacot began to study Physic at St. George's Hospital in 1798, and was a fellow-pupil and intimate friend of Sir B. Brodie. After passing the College of Surgeons he chose a military life, entered the Guards as Assistant-Surgeon in 1803, and served with the first battalion of Grenadiers until 1820. He was present at Corunna, Nive Nivelle, and the storming of St. Sebastian.

On leaving the army in 1820 he began private practice in South Audley-street, and showed activity in every branch of Professional work. He was appointed Surgeon to the St. George's and St. James's Dispensary; edited the *Medical and Physical Journal* in conjunction with Dr. McLeod, and published a treatise on Syphilis, which showed how well he had availed himself of the abundant field of observation which had been presented to him. He became a member of the Court of Examiners of the Society of Apothecaries, and passed successively through all the offices and honours of that Corporation. He was appointed one of the earliest members of the Senate of the University of London; was member of the General Board of Health in 1854, and was Inspector of Anatomy, first for the provinces, afterwards for London.

To the work connected with all these honourable appointments, he added an extensive private practice, which he carried on till quite a late period.

Short of stature, with few personal graces, and with none of that robustness which would seem to promise unusually long life, he attracted the respect and confidence of a very large circle of friends by his great good sense, his upright and honourable bearing, and practical wisdom and great kindness. When old age compelled him to resign the active and lucrative employments of life, he devoted his energies to the welfare of those charitable institutions, the Society for the Relief of the Widows and Orphans of Medical Men, and the Medical Benevo-

lent Fund, by which the necessities of our "less fortunate" brethren—too numerous, alas!—are in some degree mitigated. His bodily health continued unimpaired up to quite a late period, and his mental vigour to the last. But during the last winter palpable symptoms of failure came on, and, after four months confinement to bed, he quietly expired, at his house, No. 4, Portugal-street, Park-lane, W., on Sunday, September 4. He was born on May 29, 1781, and was thus far advanced in his 90th year. He leaves a numerous family, including one son in the Medical Profession, J. T. W. Bacot, who has lately retired from the army, after twenty-six years' service, with the rank of Deputy-Inspector of Hospitals.

JOHN ADAMSON, M.D.

Dr. Adamson, of St. Andrews, who for many years enjoyed one of the largest practices in the East of Scotland, died, after a short and very severe attack of erysipelas of the head, on August 12, while taking a short holiday with his family at Grantown, Strathspey. He was born at Burnside, a few miles from St. Andrews, and received his early education in that ancient city and University; after which he proceeded to Edinburgh, where he passed with distinction through the Medical curriculum, and became a Licentiate of the College of Surgeons in 1829, before he had completed his 20th year. He then studied for some time at Dublin and Paris, after which he went as Surgeon on a voyage to India and China. In 1835 he established himself at St. Andrews, and although for some years, till older Practitioners gradually disappeared, his Professional income was comparatively small, his attention to the sick poor, and his zeal for sanitary and educational improvements, led the senators of the University, when he applied in 1843 for the M.D. Degree, to remit, by a special motion, the ordinary graduation fee, in consideration of his services as a good citizen. From this date his progress was rapid, and in a few years he obtained the largest general and consulting practice in the district. About fifteen years ago he suffered from an attack of partial paralysis, and Dr. Brown-Séquard, who was then in Edinburgh, and came over to see him, regarded his case as almost hopeless. The prognosis of this eminent Physician providentially turned out for once incorrect, and in a comparatively short time Dr. Adamson apparently made a complete recovery. He felt, however, the pressure and fatigue of his daily duties more heavily than he had previously done, and very prudently took as a colleague his friend and relative Dr. Oswald H. Bell, who, on Dr. Day's resignation, was elected Professor of Medicine in the University.

Dr. Adamson was not only an accomplished Practitioner in every department of Medicine, but he was also thoroughly conversant with various departments of science. As long as his leisure permitted him, he prepared numerous natural history specimens (as also did John Goodsir, who was likewise an old St. Andrews student, and who was then assisting his father at Anstruther) for the College Museum, of which he may almost be considered the founder, and to which he remained curator to the time of his death. Moreover, throughout his whole career he took an active part, in association with Sir David Brewster, Sir Hugh Playfair, and the Profession, in the Literary and Philosophical Society of St. Andrews. For several sessions (1837-1840) he gave gratuitous lectures on Chemistry and Natural Science to the senior pupils of the Madras College; and some years later he conducted for several sessions the Chemical class of the late Professor Connel, during the prolonged illness of that gentleman. In 1838, when specimens of Talbotype or Calotype were first seen in St. Andrews, he applied himself ardently to photography, and for a short time thought of making it his profession. From that date most of the little spare time that he possessed was devoted to that art, and probably very few amateurs have taken so many admirable portraits of the heads of our Profession as our late friend.

In addition to a widow and four children, to whom his loss is irreparable, he has left a large circle of attached and devoted friends, who will long hold him in recollection. He was a genial companion, a sincere and warmhearted friend, and a model of upright and honourable conduct as a Physician. From the commencement of his attack he felt confident that he should not recover; but he was quite prepared for the great and final change.

His remains were laid, on the 17th, in the old cathedral churchyard, and his funeral was attended not only by the citizens of St. Andrews, but by many Medical Practitioners from the adjacent counties. "Well done, thou good and faithful servant; enter thou into the joy of thy Lord" (Matt. ch. 25, v. 21).

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, September 1, 1870:—

Parker, Alfred Henry, 36, Queen'a-road, Dalston.
Warner, Francis, 15, Highbury-crescent.
Watson, Walter George, 112, Westbourne-grove.

Also, on the 8th:—

Smart, David, Cranbrook, Kent.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Manning, F. Noaton, M.D.—Inspector of the Insane in the Colony of New South Wales, and Superintendent of the Hospital for the Insane at Gladesville, near Sydney, New South Wales.

Seccombe, E. H., M.B. Lond.—Assistant Medical Superintendent to the Royal India Lunatic Asylum, Ealing.

MILITARY APPOINTMENTS.

19th Hussars.—Staff Assistant-Surgeon Edmund Vallance to be Assistant-Surgeon, *vice* Byng Thomas Giraud, M.D., who exchanges.

63rd Foot.—Staff Assistant-Surgeon Thomas O'Farrell, M.D., to be Assistant-Surgeon.

89th Foot.—Staff Assistant-Surgeon Espino Ward to be Assistant-Surgeon.

Medical Department.—Inspector-General of Hospitals Samuel Currie, M.D., C.B., from half-pay, to be Inspector-General of Hospitals, *vice* Samuel Maitland Hadaway, who retires upon half-pay; Staff Surgeon-Major William Green Trousdell, M.D., to be Deputy Inspector-General of Hospitals, *vice* Edward Menzies, retired upon half-pay; Staff Assistant-Surgeon Edmund Greswold M'Dowell to be Staff Surgeon, *vice* Staff Surgeon-Major William Green Trousdell, M.D., promoted; Assistant-Surgeon William Robert Kerans, from 85th Foot, to be Staff Assistant-Surgeon, *vice* Daniel Charles Grose Bourns, who exchanges; Assistant-Surgeon Byng Thomas Giraud, M.D., from 19th Hussars, to be Staff Assistant-Surgeon, *vice* E. Vallance, who exchanges.

India Office.—The following admissions to the Indian Medical service have been approved by her Majesty:—*Bengal.*—To be Assistant-Surgeons: Jas. Fred. Parry M'Connell, M.B., from April 1, 1870; Joseph O'Brien, from April 1, 1870; James O'Malley M'Donnell, from April 1, 1870; James Reid, from April 1, 1870; Gilbert Proby Mackenzie, from April 1, 1870. *Madras.*—To be Assistant-Surgeons: Charles Sibthorpe, from April 1, 1870; James Anderson Laing, from April 1, 1870; Henry David Cook, from April 1, 1870. *Bombay.*—To be Assistant-Surgeons: Francis Jones, from April 1, 1870; Richard Aaron Peterson, from April 1, 1870; Thomas Stephenson Weir, from April 1, 1870.

BIRTHS.

Barnes.—On September 10, at Dorset House, Ewell, Surrey, the wife of George R. Barnes, M.D., of a daughter.

Blackman.—On September 2, at 4, York-road, S.E., the wife of Frederick Blackman, Surgeon, of a son.

Candy.—On July 21, at Mooltan, Punjab, the wife of John Candy, M.D., H.M.'s 109th Regiment, of a daughter.

Cross.—On July 6, at St. Ann's, Barbadoes, the wife of P. H. E. Cross, Surgeon 53rd Regiment, of a daughter.

Heward.—On August 26, at Clare Lodge, Southall, the wife of Dr. T. Spencer Heward, of Grosvenor-street, of a son.

Hicks.—On September 5, at Old-street-road, Finsbury, the wife of Dr. George Borlase Hicks, of a son.

Jessop.—On September 10, at 32, Park-square, Leeds, the wife of T. R. Jessop, F.R.C.S., of a son.

Joseph.—On September 3, at Battersea, the wife of James J. Joseph, M.R.C.S. and K.Q.C.P.I., of a son.

Macmunn.—On August 25, at Chelsea, the wife of Dr. J. A. Macmunn, M.D., Physician to the Royal Hospital, of a daughter.

Podmore-Jones.—On September 10, at 63, Harley-street, Cavendish-square, W., the wife of W. Podmore-Jones, M.D., of a daughter.

MARRIAGES.

Grant—Greet.—On September 12, at St. George's Church, Stonehouse, Devon, William Grant, M.D., R.N., to Olivia Kempe, only daughter of Ambrose Kempe Greet, Esq.

Halton—Graves.—On September 6, at St. James's Church, Piccadilly, John Cassie Halton, Esq., barrister-at-law, of Montreal, Canada, to Olivia Dreme, third daughter of the late Robert James Graves, M.D., F.R.S., of Cloghan Castle, King's County.

Miller—Kennedy.—On September 10, at St. Jude's Church, Southsea, J. W. M. Miller, M.D., J.P., only son of the late Captain Miller, 46th and 24th Regiments, to Catherine J. Le Poer Kennedy, widow of the late Rev. Chessborough W. Le Poer Kennedy, and second daughter of Major-General Durnford, late Commanding Royal Engineer at Malta.

Scott—Lowthea.—On September 8, at St. Charles's, Hull, Mr. Thomas Scott, to Kate, eldest daughter of Mr. Lowther, Surgeon.

Smith—Gregory.—On September 8, at Christ Church, Newgate-street, Herbert Alder Smith, Resident Surgeon at Christ's Hospital, to Emma, only daughter of Edward Gregory, Esq., of 101, Guildford-street, Russell-square.

DEATHS.

Bacot, John, formerly Surgeon of the Grenadier Guards, at 4, Portugal-street, Grosvenor-square, on September 4, in the 90th year of his age.

Burton, Matthew, M.D., Staff Surgeon, off Cape Finisterre, drowned in H.M.S. *Captain*, on the morning of the 7th inst.

Dakins, Edward S., Surgeon, late of Pembury, Kent, at 109, Sandgate-road, Folkestone, on August 29, aged 58.

Farquhar, Cecil Augustus, second son of George Frederick Heriot La Fargue, M.D., at Godalming, Surrey, on September 9, aged 7 years.

Goodfellow, Edward Fitzherbert, midshipman, youngest son of S. J. Goodfellow, M.D., of 5, Savile-row, on board H.M.S. *Captain*, on September 7, aged 16.

Gorman, Dr. John, formerly of Cadiz, at his residence, 1, Clarence-villas, Jeffrey-road, Clapham-road, on August 30, in his 80th year.

Mackenzie, Harriet Elizabeth, wife of John Mackenzie, M.D., of her Majesty's Service, Aldershot, at Great Yarmouth, on September 9, aged 25.

Neale, William Redhead, Esq., the eldest son of Dr. William Neale, of 18, Westbourne-place, Eaton-square, at Bolton-row, Piccadilly, on September 11.

Purves, Robert, L.R.C.S. Edin., off Cape Finisterre, drowned in H.M.S. *Captain*, on the morning of September 7.

Riccard, Elmira Isabella, the beloved wife of Dr. Edward Jackson Riccard, at Port Louis, Mauritius, on July 20.

Rogers, Christiana Le Cras, eldest surviving daughter of the late Dr. George Rogers, at 62, Adelaide-road, N.W., on September 3, aged 32.

Ryan, John, Assistant-Surgeon, off Cape Finisterre, drowned in H.M.S. *Captain*, on the morning of September 7.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Billericay Union.—Medical Officer for the Great Burstead District. Candidates must be duly qualified and registered. Applications and testimonials to C. C. Lewis, Clerk, Brentwood, on or before September 17. Election on the 20th inst.

Bolton Infirmary and Dispensary.—House-Surgeon; must be unmarried and duly qualified. Applications and testimonials to the Secretary on or before the 22nd inst.

Jersey General Dispensary.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

Kingsbridge Union.—Medical Officer for the Blackawton District. Applications and testimonials to W. Jarvis, Clerk, on or before October 1.

Liverpool Dispensaries.—Resident House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary, Leith Offices, Moorfields, Liverpool, on or before the 28th inst. Election on the following day, at 2 o'clock p.m.

Liverpool Dispensaries.—Assistant Resident House-Surgeon; must be duly qualified and unmarried. Applications and testimonials to the Secretary on or before the 28th inst. Election the following day.

St. Mary's Hospital and Dispensary for Women and Children, Manchester.—Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Barber, 41, John Dalton-street, Manchester, on or before September 30.

Stourbridge Dispensary.—Surgeon and Secretary; must be L.R.C.P.S. and M.R.C.S. Applications and testimonials to the Secretary on or before the 26th inst.

Surrey Dispensary.—House-Surgeon; must be M.R.C.S. and L.S.A., and be duly registered. Applications and testimonials to Mr. R. G. Minshull Jones, Secretary, 190, Tooley-street, on or before September 26. Election on the 27th.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bridgend and Cowbridge Union.—Mr. Lewis has resigned the Northern District; area 14,388; population 5531; salary £65 per annum.

Cheltenham Union.—Mr. Wm. Gregory has resigned the Fourth District; salary £45 per annum.

Hastings Union.—Mr. Wm. Campbell has resigned the Third District; area 8144; population 1552; salary £40 per annum.

Holywell Union.—Mr. T. E. Jones has resigned the Second Whitford District; area 7340; population 3524; salary £35 per annum.

Kingsbridge Union.—Dr. Newman has resigned the Parish of Blackawton; area 5586; population 1229; salary £25 per annum.

Leicester Union.—Mr. Nuttall has resigned the Third District; population 12,620.

Narberth Union.—Mr. Thomas H. Newsam has resigned the Begelly District; population 6161; salary £35 per annum.

Neath Union.—Mr. James Lewis has resigned the Llangonoyd District; population 2187; salary £15 per annum.

Sleaford Union.—Mr. H. S. Maekeson has resigned the Blankney District; area 36,260; population 3465; salary, £42 per annum.

APPOINTMENTS.

Ashton-under-Lyne Union.—Wm. Hugh Hughes, M.R.C.S.E., L.S.A., to the Workhouse.

Barnstaple Union.—Richard Cleeve Hoyle, L.R.C.P. Edin., M.R.C.S., L.A.C., to the Fifth District.

Birmingham Parish.—Adam Boyd Simpson, L.A.H. Dub., L.R.C.S. Edin., to the Workhouse.

Ellesmere Union.—Wm. Davies, L.R.C.P. Edin., L.F.P.S.G., to the Overton District.

Lesden and Winstree Union.—George Brown, M.D. Univ. Glas., L.F.P. and S. Glas., L.S.A. Lond., to the Ninth District.

Maidstone Union.—Adolphus H. B. Hallowes, M.R.C.S., L.S.A., to the Second District.

St. Ives Union.—John Thos. Leigh, M.R.C.S. Edin., L.M. Edin., L.S.A. Lond., to the Somersham District.

Ship's on-on-Stour Union.—Henry Miller, L.R.C.P. Edin., M.R.C.S.E., to the Halford District.

Stoke-upon-Trent Parish.—John Burn, M.R.C.S. Eng., L.S.A., to the Hanley District.

Royal Medical and Chirurgical Society.—The Library was reopened on Monday last.

Action by an Unqualified Practitioner.—At the Croydon County Court, on the 12th inst., before R. Cecil Anstin, Esq., Deputy Judge, Mr. Adolphus Kleczewski, of the Manse, Lower Sydenham, brought an action to recover a bill for Medical attendance. The learned judge asked him if he were a Member of the College of Surgeons or of the Apothecaries' Company, and, on his replying in the negative, read to him the 23rd section of the Medical Act, 1858, which enacts that "no person shall be entitled to recover any charge in any court of law for any advice, etc., unless he shall prove upon the trial that he is registered under this Act," and his Honour gave judgment for the defendant.

The *Californian Medical Gazette*, in reference to the Insane Asylum of the state, says:—"There is no right-minded Medical man in the state that is not gratified at the re-election by the new Board of Directors of the Insane Asylum at Stockton of the able Physician who has conducted the affairs of that institution for a number of years past. The Asylum and the crowd of its unfortunate inmates have suffered enough since the foundation of the institution from Professional incompetence and political intrigues, and, however much the public may regret the increase of the number of the insane within the walls, they cannot but be gratified at the evidence furnished by the retention of Drs. Shurtleff and Clark of the sanity of the Directors."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Edward T. Blake's paper shall appear.

Dr. Jayakar—Received, with thanks.

A very Old Subscriber.—Highgate and Hampstead are the most bracing suburbs of London.

In Dr. Rumsey's Address, *Medical Times and Gazette*, August 20, 1870—page 213, column 2, line 20—*for* "or" *read* "as."

E. B.—We know patients who have taken arsenic in small doses for years, in order to keep at bay a persistent psoriasis. They resort to it of their own accord when the disease begins to be troublesome, and continue it for months in regular doses of three minims of the solution of chloride of arsenic thrice daily. No dyspepsia, diarrhœa, gastralgia, or marasmus follows; on the contrary, health, appetite, strength, colour, and plumpness. No one would take arsenic without a cause; but, the cause given, it may be taken without any fear of accumulation in the liver, or destruction of the coats of the stomach, or other bugbears. The corrosive sublimate is the most efficient and least mischievous preparation of mercury for chronic disease. It takes a long time before one grain of the metal hydrargyrum is swallowed.

Asylums for the Deaf and Dumb.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall be much obliged if you or any of the readers of the *Medical Times and Gazette* can give me any information regarding asylums for deaf and dumb children. I make the inquiry on behalf of a friend—a gentleman by birth and education—who has been compelled by adverse circumstances to support a wife and three children on a salary of not more than £100 per annum. Of these children, two are deaf and dumb. They are both boys, and their ages are 6 and 2 years respectively.

I am, &c.

Torquay, Sept. 12. George E. Day, M.D., late Professor of Medicine in the University of St. Andrews.

Secondary Rash in Scarlet Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your issue of Sept. 3, Dr. Shingleton Smith, in his paper on Scarlet Fever, draws attention to the cases in which the rash reappeared after desquamation had set in. A case of a similar nature has just occurred in my practice. The patient, a little girl of 5 years, had the disease somewhat severely, it being accompanied with enlargement of the cervical glands and anasarca. Desquamation had set in, and I hoped the little patient was in a fair way to recovery, when to my surprise I found the extremities again covered with the rash of scarlatina, and an exacerbation of all the symptoms. I treated the case with chlorate of potash, hydrochloric acid, and cinchona, and she is now again in a fair way towards convalescence. The secondary rash remained out only for one day. During the last three weeks I have had some forty cases of scarlatina, some of a severe character, under my treatment; but hitherto have not had a fatal case. I invariably adopted the treatment by chlorate of potash, hydrochloric acid, and, in some cases, added the infusion of cinchona. I entirely attribute the secondary eruption to a reabsorption of the scarlatina poison.

It would, I think, be desirable, if other of my Professional brethren have met with similar cases, to bring them forward. I am, &c.

Glastonbury, September 7. James Albert Bright.

Medical Dinners Fifty Years Ago.—The venerable Mr. Bacot, now gathered to his fathers, used, like Nestor, to delight his friends by his anecdotes respecting a bygone generation. Medical dinners fifty years ago were by no means the flighty affairs they are now, served *à la Russe*, with the viands on a side table, distributed at the discretion of the attendants. On the contrary, the table groaned with the good things which were submitted to the eyes of the guests, and the lady of the house used, like the Vicar of Wakefield's wife, to help everything within reach of her hands. Soon after Mr. Bacot settled in London he was invited to dine with Mr. Chevalier, then a Surgeon in first-class practice in South Audley-street. Amongst the guests was Dr. Gibbes, a retired army Surgeon. "May I give you a dab of greens, Dr. Gibbes," said the lady of the house in the course of dinner. "Half a dab, if you please, ma'am," was the reply.

A Member of the B.M.A.—That *canard* respecting Mr. Prescott Hewett's alleged visit to the Emperor of the French, and his divulging the alleged dangerous condition of his illustrious patient, was noticed in the *Medical Times and Gazette* of August 27, as a story disgraceful to its inventors and propagators. It involves the idea that an eminent English Surgeon, summoned to a patient in the greatest jeopardy as to mind, body, and estate, could be so deliberately cruel, so forgetful of the oath of secrecy, so destitute of all human sympathy, or so puffed up with vanity, as wantonly and wilfully to divulge, or weakly to let slip out an unfavourable opinion, which, if known, might seriously prejudice the interests of the patient. But the serious thing is that the publication of this story, which, if true, would have been cruel to the Emperor and disgraceful to his Surgeon, was repeated next week in the *British Medical Journal*, which we hope is not in this instance the organ of British Medical opinion.

Myopia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have not as yet seen M. Giraud Teulon's conclusions, but I have just read "Myops'" corrections of them in your issue of the 3rd inst., which appear to me again to require correction. "Myops" asserts that short-sight is the best for towns; that it wears better than ordinary sight; and that, as a rule, it is not a product of disease, but congenital, and attributable to some peculiar state of the nervous system. Your correspondent would confer an obligation, I think, by explaining the pathology of "running to nerve," and by stating which nerves are engaged in the production of myopia. It is a matter of opinion, no doubt, as to which kind of sight is best for towns. I myself would prefer normal sight for either town or country; and so I fancy would the majority. When "Myops" states, however, that short-sight is not attributable to disease he runs counter to the opinion of the best authorities of the day. What does he call sclerotico-choroiditis posterior, staphyloma posticum, lengthening of the antero-posterior diameter of the eyeball, if not disease and its products? Yet these are the conditions found in the large majority of short-sighted eyes. To establish his case, let him produce even twelve short-sighted persons in whose eyes he can demonstrate the absence of disease or its products. I quite grant that myopia is very frequently congenital—principally hereditary—but surely "Myops" does not believe that congenital peculiarities arise without disease; it appears to me that one term includes the other. The degree of myopia is often increased, also, by over-exertion of the eyes, and by increased amount of disease.

It is pretty well established now, that long-continued use of the eyes at near objects, that application of the eyes in early childhood, perhaps by insufficient light and faulty distance of the desks or tables, and improper angles of these, may produce or increase myopia. I would refer "Myops" to Dr. Cohn's examination of over 10,000 children, and his conclusions respecting myopia. The old doctrine that short-sight "wears" best, referred to by "Myops," is also erroneous. The degree of myopia no doubt is occasionally lessened by senile changes, but, as a rule, short-sighted eyes get rather worse in advanced life. If it be the case that poets, artists, critics, etc., are liable to myopia, this fact might be used to show that over-application of the eyes leads to myopia, and be used against "Myops."

I have to apologise for this hurried note; but as you have given a prominent place in your journal to what seems to me incorrect views, I think it right to draw attention to the fact as quickly as possible. Like "Myops," I adopt a signature. I am, &c.

September 5. CRESCENT.

R. M.—John Hunter's works by Palmer.

Student will find that the reference is made by looking to the general heading "The College of Surgeons."

LL.D.—Yes, if there be no bye-laws to the contrary.

C. M. can obtain the document by application to the Medical officer of the Privy Council.

Nemo can obtain the appointment so far as his qualifications are concerned.

Help for the Wounded.—The working men of Birmingham have subscribed £70 to the fund for the wounded, etc.

Cholera and Drinking Water.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The question has been asked, with reference to the comparative exemption of officers from cholera in India: whether they drink water obtained from the same source as the men? Generally speaking, they do not; in fact, the conditions of life are against their doing so. Officers do not live in barracks, as at home, but hire private houses; each officer taking a house to himself, or joining with one or two others to hire one between them. These houses or, as they are called in the East, bungalows have very often a well situated within the grounds, so that each officer has a good chance to have either a private supply of water, or to share that water with one or two others. At worst, some one near is pretty sure to have a well, and to allow his less lucky neighbour to draw water. The men and non-commissioned officers in regiments live, as at home, in barracks, consequently are in a much more confined area of ground, and, as a result, probably draw their supply of water from one or two wells in the immediate neighbourhood of the barrack, many men going to one well; so if that well be poisoned many suffer. If an officer's well be poisoned, he alone, or, at most, two or three besides, suffer. Now, whether impure water, *per se*, could produce cholera is, perhaps, not so much the question as whether water is a suitable carrying agent for cholera germs, whatever they may be. I for one doubt impure water—that is, water impure from other causes than cholera germs—producing cholera, as things produce their like. Typhus produces typhus, small-pox produces small-pox; and why water impure from ordinary sewerage should produce cholera or typhoid more than measles or small-pox puzzles me. It has occurred to me as just possible that very impure water, from what I may perhaps call ordinary causes, may have the power inherent in its own original impurities, or by their decomposition into ammonia or something else, of destroying disease germs. Be this as it may, if water can be proved to be in any way connected with the spread of cholera, either by the ordinary sewerage which may soak into wells, or by its being a vehicle for the transmission of cholera or other disease germs from man to man, it seems to point strongly against the advisability of building barracks capable of holding large bodies of men, who necessarily go to the nearest well or wells, and, in the case of the water being unwholesome, are affected in large bodies; while those dwelling in separate houses would, if they drank poisoned water, only present isolated cases. Hoping these few remarks may be of some slight interest, I am, &c. X. X.

A. B. must have the double qualification.

Z.—Two guineas would be a moderate charge.

M.D., M.R.C.S. could recover for attendance and medicine in a *Surgical* case.

Lincoln.—1. The late Dr. Charlesworth. 2. Dr. Gardner Hill was resident Medical officer at the time. 3. Conolly at Hanwell. 4. The late Sergeant Adams was the author of the letters in question.

Liverpool.—It is not likely that Mr. Bickersteth had any previous knowledge of the curious paragraph inserted in the *Mercury* of the 6th inst. Such announcements are foolish, but not mischievous.

The Future of the Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It does not seem very clear what is to be the future of the Army Medical Department; but the more I think over it, the more I am convinced that the mere change contemplated—*i.e.*, the doing away with the gazetting of Surgeons to regiments, and attaching them instead—could only be attended with injury to the service in general, and the regimental Medical officers in particular. Perhaps the State cares little whether the Medical officer is comfortable or not; but, as far as that individual himself is concerned, I suspect the change from being gazetted to a corps to being attached to one would be "out of the frying-pan into the fire." Attached men living with regiments would occupy positions the like of which are held by no other body of officers in the British army. All other officers have corps of their own, are regularly gazetted to some corps or regiment, or are attached to stations. Engineers, commissariat officers, chaplains, purveyors, barrackmasters, all have corps of their own, or are attached to stations; paymasters, quartermasters, and, in cavalry and artillery, ridingmasters and Veterinary Surgeons, are gazetted to the corps or regiment with which they happen to serve. Attached Surgeons would occupy a different position to all, being neither one thing nor the other. They would probably be honorary members of the mess—in other words, charity members, using on sufferance what others had subscribed to buy, having even less voice than at present in matters concerning the social affairs of what, perhaps with bitter irony, would be called their home. A regiment is supposed to be the home of the officers composing it. I much fear their isolated position would, in some regiments, expose them to petty annoyances; for although, among gentlemen, the very fact of their being in such a position would insure them kindness and consideration, it must be remembered that nowadays an officer and a gentleman are no longer synonymous terms. Certain classes, with lots of vulgarity and money, constantly send their sons into even the best of regiments, under the idea that by so doing they will secure that social status which mere wealth will not bring—in other words, a snob of a father hopes to make his snobbish son a gentleman by sending him into the army. Now, these men are often sufficiently numerous in a regiment to give it a certain tone, or, at all events, to constitute a clique or power in it, and they are only too glad to prove what very fine fellows they are by playing practical jokes upon, or addressing offensive chaff to, any gentleman in a sufficiently isolated position to warrant the belief that he can be borne down by weight of numbers. But, apart from all this, would the Hospital sergeant and orderlies yield as ready an obedience to one regarded by them as a stranger, and who, by his liability to be shifted, they might hope to get rid of any hour? Could not a complete Medical corps, fit to take the field, be formed out of the men of the Army Hospital Corps, largely recruited, if necessary (and I believe many regimental Hospital sergeants and orderlies might be induced to join it rather than return to duty in the ranks), and officered by the army Medical officers at present existing? It would be no more strange than a Royal Engineer corps. Suppose, at present, that we become involved in a European war, have we any Hospital establishment fit to accompany an army in a campaign? Have we any ambulances? any men trained to drive them? any sufficient number of trained dressers and apothecaries? In India, a regiment on the march is accompanied by a complete Hospital establishment, with tents and ambulances and doolies, with an efficient staff of apothecaries and dressers, with ward-boys to keep the tents clean, dooly-bearers to carry the doolies, and drivers to drive the ambulances. Here is an establishment fit to take the field. Is there any such thing at home? If there is, it has been most carefully hidden. Why, if any Medical officer is sent to an out-quarter, he will find, probably, that he has some Army Hospital Corps man as Hospital sergeant, who does not know chalk from arsenic—and why should he? He probably belongs to the purveying branch of that corps. In addition to this worthy individual, there is probably some private selected from the ranks to act as Hospital orderly, so that the unfortunate Medical officer is turned into a compounder and dresser, and only hopes no one will be poisoned in the issuing of medicine. Now, the authorities may not care what a Surgeon has to do in peace, so long as nothing goes wrong; but in war he probably could not compound pills, spread plasters, and make up black draughts in addition to his other duties. If not, who is to perform these duties? Putting all the passed Regimental and Army Hospital Corps men together, have we a sufficient number of

apothecaries? If we have neither apothecaries, nor ambulances, nor dressers, nor trained nurses, is it not time that they were got together and formed into a corps? Now that the regimental system seems doomed, would it not be well to form a regular corps, and place every Hospital in the kingdom under Medical command, with Army Hospital Corps men under the Surgeon or Surgeons—making the divorce complete between Doctors and regiments, settling them down at stations in peace time, giving them executive authority in their own corps in war and in peace? By giving Surgeons lodging allowance instead of quarters in barracks, all squabbles about choice of rooms would be avoided. If Medical officers were required on the line of march, they could be detached from stations for that particular duty, but never becoming attached to regiments.

If the inspectorial ranks were worth anything, and had any independence of character, I believe that the making us into a regular distinct corps might, perhaps, raise the department higher than it has ever been; but to simply attach men to regiments, instead of gazetting them, seems a sort of half measure—a species of tinkering that, without freeing us from the much-talked-of command of colonels, would put us under the P.M.O.'s, a class never famous for sticking up for their subordinates, if we are to believe all we hear. A colonel may stick up for his officers. Does any one often hear of a P.M.O. sticking up for his? If station appointments luckily become the rule of the future, and not regimental appointments in an attached capacity, it is to be hoped they will be for fixed and definite terms of years, as frequent and uncertain moves are expensive, and, to married men with families, wellnigh ruinous. Horse allowance to all Medical officers would also be a great boon, as to do his duty (especially in India) on foot in an efficient manner is almost impossible. Fancy an active, strong man being sent for several times a day in the hot season to Hospital—distant, perhaps, a mile—with the thermometer 99° or 100° in the shade, to say nothing of night work. Hoping that the authorities will be well enough advised to leave well alone, or make a radical and complete change, divorcing Medical officers from regiments out-and-out, and that you, Sir, will agree with what is written here, I am, &c. AN ARMY M.D.

COMMUNICATIONS have been received from—

Professor NEWMAN; Mr. W. J. STOTT; AN ARMY M.D.; Dr. J. RUSSELL; Dr. R. PERAY; Dr. FAYRER; CRESCENT; Mr. METCALFE JOHNSON; Mr. WHEATLEY; Dr. E. LONG FOX; Mr. CARTER; Mr. BACOT; Dr. ALFRED JOHNSON; Col. LINDSAY; Mr. J. WICKHAM BARNES; Mr. DE LA RUE; Mr. MITRA; Mr. J. A. BRIGHT; Dr. STRANGE; Mr. GAMGEE; Dr. A. B. DUFFIN; Mr. H. ARNOTT; Mr. J. CHATTO; Dr. DAY; Dr. W. STRANGE; Dr. ANGUS MACKINTOSH; Dr. MANNING; Dr. BLAKE; Mr. PEMBERTON; VIATOR; Mr. ROGERS; Mr. LAWSON TAIT; Dr. GEORGE E. DAY; Mr. T. CHARTERS WHITE; Mr. HUSSEY; A VERY OLD SUBSCRIBER; Mr. WALTON; STUDENT; Mr. JESSOP; Dr. KENDRICK; Mrs. BUTLER; CROYDON.

BOOKS RECEIVED—

Edinburgh Medical Journal, September—Medical Mirror, September—Bird's Physiological Essays—Three Papers by Dr. Fayrer—Monthly Homœopathic Review—Stricker's Manual of Histology—Report of Sanitary Condition of St. George's, Hanover-square—Journal of Cutaneous Medicine, September—New York Medical Record (four numbers)—A Descriptive Catalogue of the Warren Anatomical Museum—Koumiss, and its Use in Medicine—Lapper's Model Index—Des Gangrenes dans les Fractures, par Le Dr. G. Nepuen—Revealed Religion; its Claims on the Intellect and on the Heart.

NEWSPAPERS RECEIVED—

Nature—The Shield—The Australasian—The Melbourne Argus—Indian Medical Gazette—Liverpool Mercury—Medical Press and Circular—New York Medical Gazette—Pharmaceutical Journal—Australian Medical Journal—Birmingham Daily Post—New York Weekly Review.

APPOINTMENTS FOR THE WEEK.

September 17. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

19. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

20. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

21. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

23. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Mr. B. T. Lowne, M.R.C.S., "On so-called Spontaneous Generation."

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 10, 1870.

BIRTHS.

Births of Boys, 1003; Girls, 881; Total, 1884.
Average of 10 corresponding weeks, 1860-69, 1911·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	687	635	1322
Average of the ten years 1860-69	636·8	623·4	1260·2
Average corrected to increased population	...	...	1386
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	3	31	1	...	...	5	2	17
North ...	618210	3	3	43	2	3	3	4	4	27
Central ...	383321	2	5	16	...	...	...	2	1	5
East	571158	6	3	14	1	2	3	4	6	38
South... ...	773175	1	2	61	2	10	...	3	3	43
Total	2803989	12	16	165	6	15	6	18	16	130

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer . . . . . 29·476 in.
Mean temperature . . . . . 57·0°
Highest point of thermometer . . . . . 71·4°
Lowest point of thermometer . . . . . 44·7°
Mean dew-point temperature . . . . . 51·5°
General direction of wind . . . . . W.S.W., S.W., S.S.W.
Whole amount of rain in the week . . . . . 1·33 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 10, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Sept. 10.	Deaths Registered during the week ending Sept. 10.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	1884	1322	71·4	44·7	57·0	13·89	1·33	3·38
Portsmouth ...	122084	12·8	60	53	74·6	38·4	55·9	13·28	1·61	4·09
Norwich	81087	10·9	41	40	69·5	43·3	55·7	13·16	0·93	2·37
Bristol	171382	36·6	122	109	67·6	46·9	55·9	13·28	1·46	3·71
Wolverhampton ...	72990	21·5	62	25	68·3	42·2	55·3	12·94	0·26	0·65
Birmingham ...	369604	47·2	230	146	69·3	44·2	56·2	13·44	0·41	1·05
Leicester	97427	30·4	61	56	70·5	42·2	56·0	13·33	0·77	1·96
Nottingham ...	88888	44·5	40	38	70·8	42·9	56·5	13·61	0·52	1·32
Liverpool	517567	101·3	351	371	67·6	47·1	55·5	13·05	1·15	2·92
Manchester ...	374993	83·6	243	193	70·2	41·5	54·7	12·61	1·16	2·94
Salford	121580	23·5	77	55	69·9	41·6	54·5	12·50	0·99	2·52
Bradford	143197	21·7	100	90	66·5	46·6	55·8	13·22	0·39	0·99
Leeds	259527	12·0	183	157	69·0	44·0	56·3	13·50	0·49	1·25
Sheffield	247378	10·8	147	124	68·0	42·5	55·2	12·89	0·84	2·13
Hull	130869	36·7	73	65	68·0	40·0	53·4	11·89	0·71	1·81
Sunderland ...	100979	30·5	50	31	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	128	73	66·0	45·0	53·3	11·84	0·29	0·74
Edinburgh	178970	40·4	136	100	64·7	42·0	54·1	12·28	0·90	2·29
Glasgow	468189	92·5	369	211	64·0	44·4	53·8	12·11	1·62	4·11
Dublin (City, etc.*)	321540	33·0	157	158	68·7	41·0	57·1	13·94	0·66	1·67
Total of 20 Towns										
in United Kingd'm	7216325	33·8	4514	3417	74·6	38·4	55·4	13·00	0·87	2·21
Paris—Week ending Sept. 10	1889842	242	...	981	...	...	...	...	...	...
Vienna—Week ending Sept. 3	622087	167	...	315	...	...	56·8	13·75	...	...
Berlin—Week ending Sept. 8 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·476 in. The highest barometrical reading was 29·90 in. Sunday evening, and the lowest was 29·16 in. on Wednesday.

The general direction of the wind was W.S.W., S.W., and S.S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF SUB-CORACOID LUXATION OF THE HUMERUS.

DELIVERED AT

THE HÔPITAL DES CLINIQUES, PARIS.

By Professor RICHET.

LUXATION OF THE HEAD OF THE HUMERUS UNDER THE CORACOID PROCESS, OF SIX AND A HALF MONTHS' STANDING—OLD LUXATIONS IN GENERAL: THEIR PATHOLOGICAL ANATOMY AND TREATMENT.

GENTLEMEN,—We have a difficult operation to perform to-day—one which demands patience as well as prudence: the reduction of a sub-coracoid luxation of the shoulder six and a half months old. I shall first give you a history of the patient by exposing the motives which induce me to attempt this reduction. I shall afterwards speak to you of old luxations in general—of their pathological anatomy and treatment.

Our patient is a man 32 years of age. He relates that, while near Smyrna, in Asia, whither he had gone for the purpose of purchasing marquetry wood, he fell from his horse and dislocated his right shoulder. The Surgeons of the country being unable to reduce the luxation, the patient returned to Paris. The accident happened six months and a half ago, and presents all the signs of a sub-coracoid luxation—*i.e.*, forwards. I need not enumerate these signs to you. I have had occasion to refer to them quite often, and I am sure you will readily recognise them.

The motions of the affected member are more extensive than one would suppose. He can move the arm forwards and backwards, but he cannot raise it—at least but very little. Nevertheless, and in spite of the relative extent of these movements, the man clamours for an operation, declaring that his infirmity prevents him from gaining his daily bread.

In the presence of these facts, what course are we to pursue? Gentlemen, we should first, and above all, examine the pathological lesions, which might contraindicate the reduction.

1. *The Position of the Head.*—In this case, being located under the coracoid process, it is not far distant from the glenoid cavity.

2. *The Condition of the Glenoid Cavity.*—As far as can be judged by palpation, it is perfectly healthy.

3. *The Osseous Stalactites.*—The formation of these bony prolongations may absolutely prevent reduction; but they do not exist in our patient.

4. *The Mobility.*—The mobility of the head of the humerus in its nearthrosis being yet considerable, shows that the fibrous tissues surrounding it are not too resistible to render all attempt at an operation abortive.

5. *The State of the Muscles.*—If the muscles were atrophied, it would be useless to insist upon a dangerous operation, the success of which could produce no desirable amelioration; but the muscles of our patient's arm have undergone no appreciable diminution in size, unless it be the deltoid.

6. *The Sensibility.*—We frequently observe, even in recent luxations, a paralysis or an insensibility resulting from the pressure of the humerus on a nerve, the median, the ulnar, the circumflex, or even the whole brachial plexus; but here, nothing of the kind has ever existed at any time since the day of the accident.

7. *The State of the Arteries.*—The fatty degeneration of these vessels, which might expose the patient to a rupture of the axillary artery during the operation, is rare in a person 32 years old. Besides, we can discover no trace of atheroma anywhere.

The only contraindication to the reduction of this luxation is its date. In fact, as I shall tell you presently, it is to be feared that the ligamentous bands of the nearthrosis are too resistible to be torn or ruptured; that, in a word, the *nearthrosis cannot be dislocated.*

But, even if we do succeed in dislocating it, severe accidents may arise and expose the patient to dangers not at all in conformity with the results to be obtained. For instance: Suppuration from the wound violently made in the nearthrosis, the rupture of arteries and of nerves, the tearing away of the whole arm, congestion of the brain, emphysema. All this obliges us to be careful.

However, these luxations can be reduced, and Clinical Surgery proves it. Sédillot has reduced one more than a year old; Smith has been successful after ten, nine, eight, seven, and six months; Malgaigne after eight months; Caron du Pillard after six months. Therefore, our patient being young, the sensibility intact, and no atheroma nor granular degeneration existing, I shall try and reduce the limb; only, not in one, but in several sittings. I shall endeavour to break up some of the fibrous adhesions each time, and the last day make a great effort to tear the head of the bone from the bands holding it to the nearthrosis, and replace it in the glenoid cavity. If I don't succeed, I shall, nevertheless, have gained a great deal for the patient by freeing his arm. I shall employ chloroform, not for the purpose of obtaining a resolution of the muscles, the action of which in old luxations appears to be insignificant, but to avoid pain, and consequently exhaustion or cerebral congestion. As soon as the patient is insensible, I shall apply muffles, which in this case I consider preferable to Jarvis's apparatus. The tractions are not to exceed 150 kilogrammes, and, by successively moving the arm in every direction, I intend to break up the adhesions one after another. Lastly, we shall terminate by suddenly letting go all traction and bringing the arm inwards, while with the palm of the hand I push the head towards the glenoid cavity.

This, gentlemen, is what I have to say to you in regard to our patient. Allow me now to say a word about old luxations in general. The question is one of more ancient date than you might imagine. Hippocrates already points out the difficulty of their reduction. In the eighteenth century, Jean Louis Petit, who was perfectly aware of the danger and the difficulty attending these reductions, declared that the operation should be undertaken even after one year. Desault and Benjamin Bell laid down as a principal that luxations older than six weeks should not be touched. It is only in our days that the question has been brought upon its true ground—that of Pathological Anatomy and Clinical Surgery; and it is from this double point of view that we shall examine the subject. But first let us give the superiority to clinical experience, which alone suffices. One single case of reduction, well observed, is more demonstrative than all the arguments urged against it by the anatomo-pathologist. Nevertheless, gentlemen, remember well that there can exist no real discord between these two sciences.

Whenever a luxated bone is not replaced into its cavity, a new articulation, to receive it and to facilitate its movements, is formed upon the spot (*de toutes pièces*). This is what Cruveilhier has happily named the *nearthrosis.* In old luxations of the shoulder, the consequences of which I now intend to discuss, we must consider (1) the articular surfaces, (2) the nearthrosis, (3) the adjacent parts of this nearthrosis, and (4) the old articulation.

1. The head of the humerus undergoes in nearly all cases a well marked ellipsoid deformation. The articular surface appears to contract itself. The bicipital groove is sometimes torn away (Anger). The greater tuberosity of the humerus may become nearly as large as the head, and occupy its place in the glenoid cavity. The luxation is complete or incomplete, according to the distance which separates the head of the bone from the glenoid cavity.

2. The new cavity is formed near the lower portion of the coracoid process, generally among the muscles, sometimes at the expense of the glenoid margin, at other times in the subscapular fossa. The manner in which this cavity developes itself has been differently explained. Boyer thought the humerus hollowed out a cavity in the bone on which it was dislocated. Thompson, on the contrary, says the humeral periosteum secretes a bony plasma, which surrounds the head of the humerus, and thus forms a new glenoid cavity. But these two opinions do not exclude one another. As to the bands of union, they are always composed of a kind of sheathing capsule, which extends from the neck of the bone to the circumference of the new cavity. We find, moreover, fibrous tissue stretching from the head of the humerus to the coracoid process, and to the acromio-clavicular ligaments; also fibrous bands formed by the displaced muscles and the *débris* of the old articulation. Demeaux has observed a case where the under surface of the subscapularis muscle had been transformed into a fibrous capsule. The old capsule has been seen to persist, but so much shrunken and narrowed as to offer great resistance to the passage of the head. Again, the part of the capsule attached to the posterior margin of the glenoid cavity has been found intact and forming an invincible barrier to

reduction. The capsule has also been seen freely opened and common to both cavities. The new tissues of the nearthosis are in general much thicker and more resistible than the old. The new cavity is irregular, smooth, or rough, sometimes synovial. In that case the nearthrosis is covered with fibrous tissue containing cartilage cells. Osteophytes and attached or loose pieces of cartilage are also met with. The bony surfaces, sometimes of an ivory consistence, are rough and irregular. Generally speaking a crepitation can be felt, though not always.

3. The peripheral cellular tissue is more or less dense, according to the date of the accident. The plastic lymph which is at first observed soon becomes organised. The muscles agglutinate and adhere to the capsule. Sometimes—and this is an important point to recognise—the vessels and nerves are found imprisoned in these adhesions. The muscles are generally atrophied, the nerves thinner, and the bones softened. The compact tissue disappears, and the cells of the medullary portion increase in size.

4. As to the old cavity, Hippocrates already remarked that it becomes filled up with *flesh*. The word is not well chosen, but the idea is correct. Cruveilhier has found it filled with fibrous tissue, though it generally remains healthy. Lisfranc cites a case where the cavity was found quite free after five months; the cartilage had disappeared, or, at least, presented a fibrous aspect without any increase in thickness. The position of the humerus, situated upon the margin of the glenoid cavity, the tractions of the triceps and biceps, increased by the displacement, finish up this deformation. However, all this is but of little importance as long as the head of the bone has been able to create for itself a new cavity, for, once returned to its place, it will easily form another.

It is the nearthrosis, therefore, which offers the true difficulty to the reduction of old luxations, and not the action of the muscles, for these are always more or less emaciated and feeble. The only obstacles are the bony prominences, which become hooked to the muscles, to the bones, and the resistible fibrous ligaments, which fix the head in its nearthrosis. The protuberances of bones can be turned by rotation, but not the neoligaments; a considerable force is sometimes necessary to break them. But another obstacle may present itself. Suppose the head of the humerus has split the capsule, and has passed through the opening, the capsule, narrowed by the tractions, forms a sort of button-hole, offering an almost insurmountable resistance to reduction. This already great difficulty in recent luxations, is still more considerable in old ones, where the opening in the capsule becomes daily narrower.

I have already told you that a great many of these old luxations have been reduced. Sédillot, Malgaigne, Roux, Smith, Kirby, Brodhurst, and others, have had successful results. But fearful accidents have been known to happen from the force used in breaking up the bands of the nearthrosis. These are:—

1. Emphysema of the axilla (Flaubert, Desault, Malgaigne). This can be explained by supposing a rupture of pulmonary adhesions to the costal walls as the head of the humerus, displaced into the intercostal space, is suddenly separated.

2. Congestion of the brain and exhaustion (Lisfranc).

3. Laceration of the skin of the arm and axilla, the bands having been badly attached (Richerand, Malgaigne).

4. Œdema and phlegmon of the arm (Richet).

5. Fracture of the neck of the humerus from violent movements (Bérard and myself at the St. Louis Hospital).

6. Suppuration of the axilla (Sédillot, Velpeau, Morel, Malgaigne).

7. Lesions of the veins, but especially of the arteries, hæmorrhages, or aneurisms (J. L. Petit, Dupuytren, Gibson [twice], Pelletan, Malgaigne).

8. Tearing away of the whole arm (Guérin).

9. Rupture of the median nerve at its origin in the spinal cord (Flaubert).

10. Tetanus, observed once by Malgaigne.

You observe, gentlemen, the accidents are as serious as frequent. Nevertheless, I am determined to attempt this reduction, for reasons which I have given you. I have also told you that I shall not try to reduce the luxation the first time, but, on the contrary, after several carefully managed tractions have ruptured all the bands of union of the new articulation. If I do not succeed, gentlemen, I shall not feel discomforted, since pathological anatomy has demonstrated that certain luxations are irreducible.

What becomes of the arm after the operation? Velpeau thought it better for the patient to have the head of the humerus in the nearthrosis than in the glenoid cavity, half filled up and under weakened muscles. I am not of this opinion. After a certain period the bone digs a place in the glenoid cavity, and the muscles, upon recovering their functions, regain strength.

After the lecture, the patient was put under the influence of chloroform, but not beyond insensibility. Tractions, amounting to 150 kilogs., were made on the arm by the aid of muffles. M. Richet afterwards seized the upper portion of the humerus, and, while forcing it outwards in the direction of the glenoid cavity, suddenly let go all traction, and it was found that the head had *partly* entered its old cavity. The patient being very much fatigued, M. Richet put off a second attempt, in which he hopes to be able to complete the reduction, until another day. In the meantime, the arm was fixed in its new and truly advantageous position.

LECTURES ON OPHTHALMIC SUBJECTS.

SELECTIONS FROM LECTURES GIVEN WEEKLY TO THE STUDENTS IN ATTENDANCE AT THE OUTDOOR OPHTHALMIC PRACTICE AT ST. MARY'S HOSPITAL.

By HAYNES WALTON,

Surgeon to the Hospital, and Surgeon in charge of the Ophthalmic Department of the same; late Surgeon to the Central London Ophthalmic Hospital.

CATARACT.

(*Continued from page* 89.)

When only one eye is blind from cataract, whether an operation should be done, is a question about which it is likely there will be a difference of opinion. The subject admits of discussion.

The removal of the cataract is not demanded on the score of the retina losing its function, because it is veiled. The retina does not become diseased from cataract. This has been proved over and over.

A person with one eye, although not half-blind, labours under very great disadvantages, the greatest of which is the narrowing of the field of vision laterally; he is blind on one side.

Theoretically, there is no drawback or disadvantage to the removal of the cataract.

The age of an individual assists much in determining the course to be pursued.

In early life the appearance of cataract in one eye may materially affect a person's prospects. It is at this time, too, that a cataract is more visible from its nature, being soft. Now also the operation which is applicable, that for solution, is almost sure to succeed.

Late in life the prospects of an individual, social and otherwise, are quite altered, and personal appearance is not then of so much value, and the suitable operation, that of extraction, is not so certain. On many points, therefore, an operation is more admissible in a young person. The advantages, notwithstanding the imperfect image on the retina of the lensless eye, from the circles of dispersion, are enlargement of the visual field, and as the eyes act together in binocular vision, increase in the intensity of optical impressions and better applications of the dimensions of bodies, and improvement in the judging of short distances.

Practically there is not any disadvantage in operating. In every instance in which I have removed the cataract, both in young persons and in those of middle life, I have received the distinct assurance from each, that much advantage was obtained, and all were pleased at having undergone the treatment.

Several times I have endeavoured to unite the foci of the eyes, for distant vision, and for near, so as to give a common distinct perception, by means of convex glasses, but I have been unable to affect it satisfactorily on account of the inequality of the images, and the loss of accommodation in the one eye.

The rule therefore which I follow is, in early life, to advise an operation, and late in life to state the particulars to my patient, and ask him to decide.

When one eye is blind, and the other so far affected also with cataract as materially to impair sight, there can be no question in the abstract about the propriety of operating on that which is fully cataractous. There is no reason why a person should be allowed to become quite blind in both eyes before sight is restored. Much inconvenience is prevented by operating on the one eye before the other is obscured.

When both eyes are equally affected with blindness, only one at a time should be operated on for extraction, and the first should be allowed to recover before the other is touched. There is

thereby less shock to the system. Besides, if in a first operation there appears some constitutional peculiarity of bad tendency, it may be removed, or in some measure reduced, before the second is undertaken.

When the double operation is done, inflammatory effects on the system from one eye going wrong might be the means of spoiling the healing process in the other.

Both eyes may be operated on at the same time for solution.

The operation for extraction should be done at a certain stage of the cataract. It may be performed too early and too late.

When the lens is not entirely pervaded by atrophy, the circumference has not undergone that change which will enable it to quit the capsule readily, and an easy escape is an important element in the success of the operation. Besides, while there remains any surface lens tissue unaltered, much of it, or all of it, is tolerably sure to be left in the capsule, and some may remain in the chambers of the eye; in either case irritation is produced, and there may be some inflammation. Therefore, a cataract should be matured before an attempt is made to extract it.

Some Surgeons have adopted the process of what they call anticipating the cataract by pricking it with a needle, so as to render it fully opaque. This is to be condemned; injurious inflammation is risked, and the eye is always rendered less fitted for the extraction, as it always inflames a little in old people. Healthy lens tissue resists a wound more than that which has atrophied. Again, if this be done with the view of getting the cataract to quit the capsule easier, it is useless, for there is not that softening at the surface which is so characteristic of the natural atrophy.

Cataracts that have undergone the secondary change or late atrophy, in which calcareous deposits have formed on the surface and on the inside of the capsule, thickening it, are less favourable for treatment, because not only does the capsule not retract as is desirable when it is scratched with the curette, and allow of the easy escape of the cataract, but the cutaneous deposits are more or less retained, and accordingly obscure the pupil.

The operation for solution should not be undertaken until the cataract is thoroughly mature, because any healthy lens tissue that is rendered opaque by the operation, and exposed to the aqueous humour, invariably swells very much more than that which is cataractous, and thrusts the capsule against the iris, producing adhesions between the two, and may besides cause injurious effects to the eye from pressure. At the same time it should not be delayed till secondary degeneration is far advanced, and because then the capsule is likely to be much affected, and therefore trouble may arise from thickened capsule being in the pupil.

A Surgeon should be cautious, even under the most favourable circumstances, never to overrate the chances of success of any operation for cataract, nor to allow it to be thought that any is infallible. Above all, when there is the slightest indication which would render the result questionable, or imperfect, owing to individual peculiarity or constitutional taint, hereditary or acquired, it is right, as regards the patient, and a safe provision for himself, that all the particulars for and against operating should be stated clearly and intelligibly without the least dissimulation.

The season of the year most fitted for operating has occupied attention. With reference to needle operations, I suspect it matters not; nor, perhaps, is any operation in our climate influenced by the mere degree of temperature, which is rarely in either extreme. In extracting in cold weather, the room to which the patient is confined I have kept at a uniform temperature—not lower than 60° Fahrenheit for the first few days. Many very excellent Surgeons never extract in winter, and Mr. Tyrrell thought the best time for that operation to be between March and October. Where a choice is permitted, I should, as a rule, prefer that period, because regular exercise prior to the operation is less likely to be interfered with, from the greater certainty of settled weather, while the apartment can be better ventilated, and the patient will be able sooner to take out-door exercise, and recover his lost strength and spirits, the consequence of anxiety and confinement. At this time, therefore, convalescence is less likely to be protracted. Again, when the state of the eye is such as to render the success of the operation somewhat doubtful, I should prefer summer weather.

Operation for extraction, by a crescentic corneal cut. This is the operation which is the most suited for the removal of a hard cataract. By it alone can the best results be obtained, and, as I believe, the highest average of recovery. It is preferable to all methods of extraction, whether in the hands of the inexperienced or in those of experts.

Extraction is frequently referred to as one of the most difficult operations in ophthalmic surgery. While I fully admit that for accurate execution great nicety and practice are needed, I do not hesitate to say that its difficulties are greatly exaggerated.

Every step of the operation requires to be well done, or failure ensues. All must be exact.

The pupil should be always dilated, because more room is then given for the laceration of the capsule. Some of the dilatation is lost when the aqueous humour escapes, but some remains. The dilatation may have some effect in keeping the iris out of the way of the knife. It, too, will always discover the existence of any adhesion between the iris and the capsule of the opaque lens, and disclose that state of the iris, apart from adhesion and inflammatory disease, whereby it will not expand much, and which is an obstacle to the escape of the cataract.

A patient should always lie down, all full length on his back, with his head alone a little raised. He can be steady only in this position. It matters not whether the operator sits or stands, so long as he has sufficient command over his work.

The importance of a properly regulated light is evident. An operator will, of course, choose that which, according to the arrangement of the room, suits best. In private practice, he should ascertain this by trial with his assistant, before the patient is brought in. A few general directions may be useful. The patient should be placed near a window obliquely, so that the eye will be lightened, while the light is not reflected from the centre of the cornea, so as to prevent the operator from seeing clearly what is necessary to be done. A position exactly opposite the window will produce the reflection which obscures. It is better to have only one window open, and the lower part of that should be closed by shutters, or screened by a blind, as it is advantageous to have the light from above. Sunshine must be avoided.

All the principal articles of clothing should be taken off, the patient prepared to go to bed, and a morning gown put on, to prevent the inconvenience of undressing afterwards.

I divide the cornea in the upper part, preferring that section as it possesses many advantages over the lower, such as the greater certainty in making it effectually, the less likelihood of the flap being interfered with by the eyelid, and the upper position of the pupil, should the iris prolapse. Besides, if the prolapse occurs in the form of a marked tumour, it will be less irritated here. Any cicatrix is also better hidden.

It is better to stand behind the patient in every instance, as it gives much greater command over the globe of the eye. But when the left eye is to be treated, if want of practice or deficiency of confidence disqualify the left hand, the operator must stand in front, and submit to the great disadvantage of resigning to another, his assistant, what he ought to do himself, as most important acts, the retracting of the upper eyelid, and the steadying of the eyeball, while he uses the knife in the direction he prefers, upwards or downwards.

I always grease my knife slightly with olive oil, because it prevents the corneal flap from sticking to it, no slight advantage.

(*To be continued.*)

Dislocation of the Jaw.—M. Clement, at a recent meeting of the Lyons Medical Society, related a case of bilateral dislocation of the jaw, which had been produced by muscular action, while the patient was examining his mouth in a mirror. Although the luxation had only existed an hour, he found on trying four times that its reduction was impossible by the usual procedure. He then with the end of his finger sought for the coronoid process, pushing the upper lip forcibly upwards, and pressing the coronoid backwards. The condyle re-entered its cavity with the greatest facility, and the same procedure succeeded just as well on the other side. M. Gayet observed that in this dislocation, in which muscular action plays so great a part, we should always try to turn the patient's attention from our procedures. In fact, this is probably what occurred in the present case, the patient involuntarily contracting his muscles during the first attempts at reduction, while, on the finger being introduced into the mouth in search of the coronoid, his attention being diverted, the muscles readily yielded. He met with a similar case in which, after very painful efforts at reduction, the condyle suddenly returned to its cavity during an examination of the mouth.—*Lyon Médical*, Sept. 11.

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE EFFECTS OF THE HYDRATE OF CHLORAL WHEN EXHIBITED IN A CONTINUOUS MANNER IN ACUTE AND CHRONIC DISORDERS.

By WILLIAM STRANGE, M.D.,
Physician to the General Hospital, Worcester.

(*Concluded from page* 334.)

Affections of the Heart.

The physiological effects of chloral are said by Liebreich and others, who have made experiments upon animals by carrying its exhibition up to the fullest effects, to be exerted—first, upon the cerebral hemispheres, secondly, upon the medulla oblongata and spinalis, and lastly, upon the heart. Given in absolutely poisonous doses, it paralyses the ganglia and fibres of the sympathetic which ramify in the muscular structure of the heart, and so causes death by syncope. How far the exhibition of the salt in more moderate doses is open to the objection apparently suggested by these experiments, the following cases will show :—

Case 7.—Severe Angina Pectoris in a Gouty Subject.

A Welsh gentleman, 76 years of age, of a highly nervous and excitable temperament, has for years been a martyr to gout in all its forms, the hands and feet exhibiting a mass of deformity from chalk stones. The arteries are extensively diseased, the pulse having that hard and inelastic feel which accompanies atheroma, whilst the heart's action is feeble and unrhythmical. About four months ago he became subject to severe attacks of angina, which always seized him at night after he had been asleep from one to three hours. On the occasion of the first severe attack, I found him in a complete state of orthopnœa, bathed in cold, clammy sweat, the extremities cold and blue, pulse imperceptible at the wrist—in fact, apparently in a dying state. He was rescued this time by means of brandy, with heat and friction to the surface, and the same means were had recourse to on several subsequent occasions. The attacks, however, recurred with equal severity almost every night, and death appeared imminent. The tongue now became loaded, black, and dry, and the teeth covered with sordes; nothing but brandy could be taken; the pulse remaining, nevertheless, very feeble, and the surface always cold. Finding that stimulants combined with sedatives failed to ward off the frightful night-attacks, I very doubtingly—in fact, with fear and trembling—ventured to administer twenty-five grains of the hydrate one night, sitting with him to watch the effect. In less than half an hour the patient fell into a quiet sleep, during which the surface retained its warmth, the breathing being tranquil and regular. The pulse also improved in rhythm under its operation. Next day the old man declared that "he had not enjoyed so good a night's rest in all his life." The chloral was therefore continued; and if the first dose failed of full effects, an extra half dose was given an hour or two afterwards with the effect of always preventing the so much dreaded attack of angina. The dose was soon afterwards increased to thirty grains, a little sulphuric ether and aromatic spirit of ammonia being conjoined with it. What is most singular is that, invariably, whenever the nightly dose of chloral has been omitted, that night the attack of angina has returned at about the same hour as at first. This patient has now taken the chloral every night for about four months, the total quantity amounting to about 3600 grains; the almost certainly fatal effect of such repeated attacks of cardiac syncope have been warded off, and his life has consequently been prolonged. Nothing would now induce the old man to pass a single night without his dose of chloral.

Now, what are we to infer from the undoubted effect of the chloral in this case, in warding off attacks of cardiac syncope, as to its physiological effect upon the nerves of the heart? I imagine this: that chloral, like several other drugs of the sedative class, operates very differently according to the amount of the dose exhibited—like digitalis, for instance, which, whilst in large doses it paralyses, in smaller it only calms or strengthens the heart's action. Certainly, however poisonous to rabbits and small animals in full doses, the chloral did operate as a calmative, and therefore as a tonic, to the nerves of this old man's heart, as evinced by the improved pulse, the tranquil breathing, and the warm surface whilst under its influence. Clearly, too, there was no after depressing action, for if so we should have expected to find the running down of the heart's mainspring to be hastened, in place of retarded, under its use. In fact, there was clearly a conservation of force rather than an expenditure of it; and this, I take it, is a very valuable fact.

Case 8.—Anginal Symptoms of Long Standing, with Mitral Obstruction, in a Gouty Subject.

A country gentleman, aged 72, long subject to heart symptoms, characterised by occasional faintings, heart spasms, palpitation on exertion or emotion, to which lately has supervened some mitral obstruction. He has never experienced an attack of regular gout, being an abstemious liver and of regular habits, but there are many symptoms of the gouty diathesis. In March, 1869, I found him unable to lie down in bed, passing his nights with broken rest in an easy chair; the palpitation and orthopnœa being extreme whenever he attempted the recumbent position; and his general health was suffering in consequence, although as yet there was no anasarca. Occasionally his symptoms would mitigate, but there was no permanent relief. This spring he reluctantly consented to try the chloral at bedtime. It was given in twenty-five grain doses, with a little spirit of ammonia and sulphuric ether, as in the case last quoted. This dose invariably gave him a better night's sleep, and soon enabled him to resume his rest in bed. He is now, with occasional attacks of cardiac dyspnœa, able to attend to his duties as a county magistrate, walks tolerably well, and often rides at a foot-pace several miles a day.

Phthisis Pulmonalis.

I have had but little opportunity of trying the effect of the hydrate of chloral in spasmodic asthma and chronic bronchitis, in which diseases some Physicians have derived excellent effects from its use; but I have given it in several cases of pulmonary consumption, and generally have been satisfied that I have reaped all the advantages which could be reasonably expected from it. Relief from the distressing and incessant cough and better sleep is all that I have hoped for, and these have been obtained in the majority of cases.

Case 9.

A gentleman, aged 80, who had passed a most active life in the tropics, became consumptive for the first time some nine months before his death. The case ran a very rapid course, excavating the left lung entirely, the expectoration of fetid pus being enormous. Towards the latter part of the time this patient scarcely obtained any sleep, in consequence of the incessant cough necessary to expectorate so large a quantity of pus. Opiates in all forms failing, the chloral was tried with the effect of always procuring some hours' sleep each night, and therefore its use was continued to the day of his death. The appetite, never good, was not interfered with by the chloral, and the secretions of the kidneys and intestines continued active to the last.

Case 10.

In the case of a young lady, aged 24, whose phthisis had been for three years complicated, and at first masked, by symptoms of cerebral excitement and mental aberration, the chloral produced the happiest effects. For the last three months of her life this young lady obtained no sleep but what was secured by the chloral—morphia, which she had previously taken largely, having lost all power as a hypnotic. Moreover, the morphia deranged the stomach a good deal, and did not allay the excessive nervous mobility and cerebral excitement. The dose of chloral was invariably twenty-five grains, given about ten o'clock at night, and this was repeated if sleep did not quickly follow. The double dose was always successful. This patient also took the chloral up to the day of her decease.

I might cite many other cases in which I have given the hydrate of chloral for many nights in succession. These, however, would only go to confirm the now well-established observations of its value in almost all forms of disease where a simple hypnotic effect is all that is required, or at least expected of it. Acute rheumatism is so much relieved by it that I have no hesitation in recommending its use in a continuous manner, so long as the painful symptoms remain.

As regards the effects of the hydrate on the pulse and temperature, it is not easy to make observations of sufficient accuracy to have any physiological value. The following is a record of a few cases made for me by our House-Surgeon, Mr. Hardyman, who watched the effects very carefully. They

all took thirty grains of the hydrate at bedtime for several nights in succession:—

Effect of Chloral on Pulse and Temperature.

1. *Rheumatism, Subacute.*

When given—Pulse	. 72	Temperature	.	97·2°
On awaking „	. 68	„	.	96·2

2. *Rheumatism, Acute.*

When given—Pulse	. 80	Temperature	.	97·6°
On awaking „	. 76	„	.	97·2

3. *Renal Disease.*

When given—Pulse	. 88	Temperature	.	99·2°
On awaking „	. 76	„	.	96·3

4. *Rheumatism, Acute.*

When given—Pulse	. 108	Temperature	.	99·8°
One hour after „	. 108	„	.	99·8
In morning „	. 110	„	.	100·4

This patient did not sleep well from the chloral.

The fall in the pulse here indicated is not more than what usually takes place in the morning in most acute diseases. In the last case, which was one of severe rheumatism, there was no lowering of the pulse by the chloral. The fall in temperature is more general, ranging from 0·4° to 2·9° in about twelve hours. I have no data showing any change in temperature in those cases where the chloral has been given for a length of time continuously, but I believe it is not great, provided the chloral be only exhibited as a draught at bedtime. In a case of chorea, in which chloral was given three or four times a day for nine days, the surface became cold, and the skin dusky and inclined to blueness.

With regard to the mode of administering the chloral, it will be found useful, whenever there is much nervous debility, to give some aromatic spirit of ammonia, or sulphuric ether, along with it. The best vehicle for it is syrup of orange-peel or peppermint-water. Half an hour is long enough to wait for the action of the drug; if sleep does not seem approaching by that time, a half or a full dose may be given, and this seldom fails of the complete effect.

ANÆMIC PUERPERAL CONVULSIONS AFTER LABOUR,

TREATED WITH HYDRATE OF CHLORAL.—PERFECT RECOVERY.

By ANGUS MACKINTOSH, M.D.

So much has been written lately concerning the beneficial effects of the hydrate of chloral, that I have specially ordered a quantity of it from the metropolis. I have made it a point to carry it always with me since I received it, with the object to test its virtue should an opportunity occur, especially when called to cases of labour, having lost a patient, twelve months ago, with puerperal convulsions, eight hours after being delivered with forceps. From the favourable reports I have seen and read of this remedy, I looked forward with some confidence in it, should an occasion happen justifying and demanding its administration; and, happily, I have not been disappointed.

Every Practitioner who has had the misfortune to combat puerperal convulsions, from whatever cause, either before or after labour, knows too well what a dangerous and frightful complaint he has to subdue and conquer, and how active and pointed his treatment must be, otherwise his patient will soon be beyond any chance of recovery. Puerperal convulsions, we are informed, arises from two opposite causes—the one, from an overflow of blood to the head, rendering the cerebral vessels immoderately distended; and the other, when the vessels are almost empty, as in some cases of severe hæmorrhage. That these extremely opposite conditions should be followed by the same result is physiologically surprising and scientifically interesting, though hitherto rather unsatisfactorily explained.

On June 24 last, about 8 o'clock in the morning, I was summoned, for the first time, to attend a tradesman's wife that was in labour, who previously engaged me for that purpose. This was her second confinement, the first being a boy seven years old. Had no miscarriage or abortion during the interval. The only information received from her when she asked me to attend her was, that she was only a short time ill on her first, and hoped I would come when sent for, to which I replied in the affirmative. About half-past 9 I reached the house, a distance of six miles. I was told the child was born and alive, but that the mother had a "terrible fit," and a "great loss." On entering the bedroom the following symptoms were but too easily observed:—Her face was very pale and white, covered with cold perspiration; pulse very feeble, irregular, and hardly perceptible; respiration laboured; was urging and had hiccough; could scarcely speak so as to make herself intelligible. On removing several articles of dress, which the nurse had applied to stop the hæmorrhage, I found the placenta expelled, and little oozing from the uterus. Everything about appeared to be saturated with blood. I endeavoured slowly to introduce my hand into the vagina, which instantly brought on a convulsive fit, expelling two or three clots. I opened the window of the apartment, and kept her as quiet as I could with the assistance of the nurse. On recovery, which was in about three minutes, I gave her a small quantity of brandy-and-water, and ordered beef-tea to be made as soon as possible. Having plenty of sugar, I made syrup, and put two ounces of it into a six-ounce bottle, to which I added one drachm of the hydrate of chloral, and filled the rest with water. I persuaded her to take two teaspoonfuls of this mixture, which she did, and after, two teaspoonfuls of brandy-and-water. It did not make her sick, though she was very much inclined to sleep. I then bandaged her, and introduced my hand again so far into the uterus as to ascertain that there were no clots of any consequence there. The hæmorrhage, which was but little since my arrival, ceased by this time. Now the beef-tea was ready, and, with a great effort, she swallowed a few teaspoonfuls, followed by the brandy-and-water. In an hour exactly from the first dose of the chloral mixture, I administered two teaspoonfuls more, and in a few seconds followed another fit. On recovering this time, she was dull, sleepy, and complained of pains in her knees and legs. A little gentle friction appeared to ease and soothe her. The pulse was slightly improved. I remained with her till 6 o'clock in the evening, giving the brandy-and-water with the beef-tea at intervals of about half an hour throughout the day.

During my stay she had in all six convulsive fits. After the second dose of the chloral mixture, it was increased to a dessert-spoonful, which was given every hour. In the evening I could see a decided improvement, when I left, giving all instructions regarding my patient throughout the night. Early next morning, June 25, I visited my patient again, and was glad when informed that she had only one fit in my absence, and that she was able to take more nourishment. The pulse was stronger and more regular; a little colour returned to her cheeks and face, and she could answer questions with more freedom and ease. She said the medicine made her always sleepy, but relieved the pain in her limbs. She complained of a headache in the morning, but no urging or vomiting.

From this time, thirty hours after her confinement, she had only one fit, which was but slight. I have constantly visited her ever since, twice a week, and her recovery has been gradual and complete; she is now nursing her baby. Her strength has wonderfully improved, and she has not a single bad or suspicious symptom.

Conclusion.—In this case I consider the convulsions were the result of a severe hæmorrhage, as there was no tendency whatever, so far as could be ascertained, to fits or spasms of any kind before the birth of the child. I have observed that the spasmodic twitchings preceding the convulsive seizures always commenced in the lower extremities and gradually ascended to the arms and neck. *I am not aware that this peculiarity has been observed by others in this particular form of puerperal convulsions.*

May not the great loss from the uterus, and consequent inanition of that organ, partly explain why the spasms affected the lower extremities first? The nervous communication between the uterus, lower part of the spine, and lower extremities is so direct that it appears almost plain how and why the legs and thighs should be convulsed before the arms and neck, and in any future emergencies of a similar kind I should be inclined to direct my line of treatment more to the lumbar region than to the head.

I attribute the safety of my patient greatly, and the short duration of the convulsive fits, to the hydrate of chloral. It is satisfactory to know that the fits only lasted about thirty hours after labour was completed, while the average duration is from a week to eighteen days. From what I have been able to observe of the physiological effects of chloral hydrate, I believe it to be decidedly sedative and antispasmodic. Of its stimulating power I could not judge, having administered so much brandy. In future, and under a like circumstance, I intend to give the remedy a further trial, having been favourably impressed with its effects in the present instance.

Callington, Cornwall.

JACKAL BITE.

By J. FAYRER, M.D., C.S.I., F.R.S.E.,
Professor of Surgery, and Senior Surgeon, Medical College Hospital, Calcutta.

On the 19th of May last, I was asked to see the infant son of a native gentleman, who had been taken from his mother's side by a jackal when sleeping in a room on the second story of an inner quadrangle of a house situated in a crowded part of Calcutta. I found a male infant of thirty-four days old with a deeply punctured wound on the inner aspect of the left thigh, at about the junction of the middle and upper thirds.

The limb was swollen and infiltrated, and the femur broken. The wound penetrated to the bone, but the probe did not touch the fractured portions. There was shortening and flexion of the limb. There were several other minor wounds and sundry scratches on the child's side, caused by pressure against the railing through which the jackal had tried to drag, and where it had dropped it. The child was restless and feverish, the limb much swollen, infiltrated, and indurated, being also shortened and the foot everted. There was a sanious discharge from the deep wound which had been inflicted by the jackal's tooth, and some portion of adipose tissue protruded.

The wound was dressed with carbolic glycerine, and the thigh placed at rest on a long splint. It was feverish and restless for a day or two, and, having caught cold, its breathing became considerably embarrassed; but it did well. The wound healed, and the bone united rapidly, and in three weeks the child had perfectly recovered. It was nursed by its mother, and it also had cow's milk during the time it was under treatment.

A few days later, a child about six months old was seized by a jackal, and carried for a short distance through the court-yard of the house next door, but was dropped on some one running to its aid. In this case the child was lying on the raised platform of the ground floor, and was wrapped in a sheet. The jackal had seized it by the dress, and beyond a few scratches it was unburt. It shows how bold these generally sby and cunning animals can be at times, and is a warning to native mothers and nurses to look well after their charges, even in the innermost recesses of their city houses.

Calcutta.

IMPROVED HOSPITAL CONSTRUCTION.

By HENRY GREENWAY, M.R.C.S.

Having heard the able paper on the Construction of Hospitals delivered by Captain Galton, at Leeds, last year, and the interesting discussion thereon, I was led to bestow some amount of attention on the subject; and in the early part of the present year my plan was so far matured that, but for his illness, I should have submitted it to Sir James Simpson for approval. I was prepared to construct a Hospital possessing all the advantages of a large building, without any of the disadvantages complained of by our now departed benefactor. I now venture to bring my plan before the notice of the Profession, and trust it may be favourably received. It will suffice for me to describe the construction of a ward, as the other portions of the building may be carried out according to taste. It consists of a long room, 30 feet wide and 14 feet high, the walls of which are of masonry, the floor and ceiling of glass and iron. Within this room, and reaching from the floor to the ceiling, is a double row of cells, placed back to back, made of glass with iron framework. Between the fronts of these cells and the main side walls there is a passage, 5 feet wide, into which the cells open. Each cell, 10 feet square, is ventilated by a tube which passes through the wall, then across and underneath the passage, and opens in the floor of the cell through a long iron grating. The outlet of foul air takes place through a tube which leads from the ceiling to the outside of the roof. Around this tube, between the ceiling and the roof, is a hot-water appliance (part of a system, extending underneath the roof over all the cells) for heating the air within the tube, and thus causing an upward draught from the floor of the cell. Each cell has its own sash-window on the opposite side of the passage. Outside each window is a small balcony for conducting window-gardening. Inside the front of each cell, on either side of the door, is fixed a transparent landscape. The passages or corridors are heated by a hot-water pipe, and should the same not suffice for the cells, they would be heated by another. The cells would be illuminated at night by transmitted light from the corridor. At each end of the ward are placed the usual ward offices, and they are separated from the cells by a cross passage, which unites the two corridors. The nurses' rooms command a view of the corridors; and if a patient, on any emergency, require the nurse's attendance, by pulling a string he would ring a bell, and at the same time cause a signal to project from the front of the cell, thus directing the nurse to the proper quarter. As the ward offices extend not only across the ends of the ward, but project on either side of the building, the ground plan of this portion of the Hospital would resemble the letter **I**.

By this plan the following advantages are gained:—Each patient has the enjoyment of his own special supply of atmospheric air (1400 cubic feet), uncontaminated by exhalations from his neighbour; the cells being made of glass, no absorption of morbid products can take place in the cell walls, and by occasionally washing them with water, they will for ever retain their purity; as the patient lies in his bed, he sees not only the transparent landscapes, but can look through his glass door, and across the passage, at the little garden outside the window. He has also the advantage of an apartment to himself, thus avoiding the unpleasantness often felt of associating with strangers, whose characters might not always bear investigation. The patient, although plentifully supplied with air, is not exposed to a draught, as the under surface of the bed acts as a screen. Patients not confined to their beds, and having no infection, may be allowed to associate and take their meals in the corridors during the day. I propose calling this a *promenade and cell ward*.

Plymouth.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASE OF PERINEPHRIC ABSCESS.

(With Remarks by ALFRED B. DUFFIN, M.D., Assistant-Physician to King's College Hospital.)

E. M., aged 14, applied among the out-patients at King's College, April 6, complaining of severe pain in the right loin and buttock. When 5 years of age he injured his perineum across a rail, and during the two following days passed bloody urine. He subsequently passed urine in a full stream, and in a few days was quite well again. Seven years later, when 12 years of age, he was one day suddenly seized with severe agonising pain in the perineum, and complete inability to pass urine. He was bent double with the agony of this pain. He was taken to see Mr. Cooper Foster, at Guy's Hospital. Mr. Foster used an instrument, and the water flowed in a full stream. The boy remained in Guy's for about a month, but without any recurrence of the annoyance. About a month later he was similarly attacked. One of the students at Guy's attempted to pass an instrument, but failed. The same night the patient had a rigor. Although he could void his urine next day, the pain in the perineum persisted, and a few days later Mr. Foster opened an abscess in that situation, through which urine was also discharged. For a while all the water was discharged by this fistula, but gradually an increasing proportion passed by the urethra. It was only after seven months that this fistula completely healed. He was then passing urine in a full stream by the natural passages. The boy does not know whether Mr. Foster removed any calculus by the perineum. He then continued well for nearly a year. About March 25—*i.e.*, a fortnight prior to his applying at King's College—he suffered from headache, chills, loss of appetite, and on the 28th he had a violent rigor. This was almost immediately followed by severe pain in the right loin, of a tensive throbbing character, which ultimately led him to apply. A few days ago he also began to walk lame, and to experience pain about the buttock. On April 4, he for the first time noticed that his urine had become milky. The rest of the antecedents are negative. No history of the passage of calculous grits, or of renal colic; never had scarlatina or an injury to the back. Had not been exposed to malarious influences.

When first seen the right loin was tender, moderately full, and bulged, the lumbar fold obliterated, with dulness extending as far forward as the tip of the eleventh rib, and thence to the anterior superior spine of the ileum. The

anterior edge of the dulness was obscure and shelving. The skin was not glossy, but a deep-seated doughy feeling was noticed. The urine was acid, and contained a third of pus. When decanted it scarcely presented a trace of albumen. Microscopically it only showed pus corpuscles. The boy walked on the toes of the right foot, with the body bent slightly forward, and complained of aching about the hip. There was no evidence of disease of the vertebræ, nor of any thoracic mischief. The diagnosis at once formed was recent abscess of the pelvis of the kidney, which had become perinephritic. Two days later the lumbar part of the swelling had much increased, and the skin had become glossy. Imperfect fluctuation was to be felt at the outer edge of the quadratus. There were marked signs of hectic and delirium. Some days later (April 12) fluctuation was very manifest, and Mr. Wood's opinion was requested. He punctured the abscess with a fine straight bistoury, through a layer of carbolic acid putty. Between four and six ounces of thin, fetid pus, with a strong urinous odour, escaped. This was received into cotton wool steeped in carbolic acid and oil, and the abscess was allowed to drain without pressure. The patient passed an excellent night, and next day was easier in every respect, with a falling pulse and thermometer, and a moist tongue. Two days later the discharge had quite lost its offensive character. The tumour had now completely retreated behind the quadratus.

During the next three weeks the only noteworthy facts were the persistence of discharge by the wound, its more simply purulent character, and the continuance of pus in the acid urine, the quantity varying from one-third to one-twentieth. The general health was well kept up.

Early in May there was a a temporary arrest of discharge from the fistula. The lumbar swelling resumed its original proportions, and the hectic became again very marked. When the track of the wound was re-established, free discharge ensued with great relief. It was also noticed that pressure near the anterior spine of the ileum caused pus to well out of the wound. A targle tent was introduced in the track of the fistula, but its presence could not be borne. Towards the end of the month a fresh abscess formed near the crest of the ileum, and was opened.

On June 8, Mr. Wood performed an exploratory operation. Having found that the two fistulæ communicated, he proceeded to lay them into one by a lunated incision. He thus exposed the outer edge of the erector spinæ. The track then taken by the probe was found to be between this and the margins of the external and internal obliques and the quadratus lumborum. It then ran inwards and downwards for about two inches, and then directly downwards. Mr. Wood dilated the wound, so that the finger passed in fully three inches. He then passed a long probe quite eight inches in the direction of the ureter. The tip of the finger seemed to enter a funnel-shaped cavity with smooth walls (? the pelvis of the kidney). No calculus was met with. The boy passed a good night, and but little febrile reaction followed the operation. On June 21, the wound tending again to close, a drainage-tube was introduced. On the 30th it was removed. The discharge gradually diminished till only a few drops were daily lost by the wound, and the urine became almost clear. He left the Hospital at the end of July with the fistula still running slightly.

There are a few circumstances about this case which appear worthy of more than a transient notice, especially when its great rarity is considered. I would particularly direct attention to the peculiar form of lameness which set in within a few days of the first rigor, and which was noted on the first occasion on which he applied. This attitude of the limb of the affected side has not hitherto attracted the attention in this country which it appears to merit. In none of our standard works is any allusion made to it. It was, however, observed as one of the earliest signs in a case of perinephric abscess succeeding to confinement, cited by Dr. Hughes (*Path. Trans.* vol. ii. p. 235). Dr. Chuckerbutty (*Lancet*, July 28, 1860) also observed flexion of the thigh upon the pelvis in a case upon which he operated successfully by incision through the loin. This symptom is incidentally noticed by Trousseau in the first case of the kind which he describes in full (vol. iii. *Clinique Médicale*, p. 714). It is the more remarkable that, in his summary of diagnostic remarks, this author entirely overlooks this character. In M. Bienfait's case, where the abscess was so large as to reach nearly to the umbilicus, there was complete paralysis of the leg of that side. · Trousseau, vol. iii., p. 718. Dr. Bowditch, in America, seems to have been the first to assign to it its true value. It was an early symptom in the whole of the three cases he reported to the Boston Medical Society (May 4, 1858). Among the Germans, Niemeyer regards the position of the thigh as the most valuable evidence we possess of perforation of the pelvis of the kidney into the areolar tissue (*Pathologie in Therapie.*, vol. ii. p. 48). A case quoted by Dr. Dickinson (*Path. Trans.*, vol. xvi. p. 175), in which an abscess opening in the groin was traced on post-mortem along the track of the psoas to the kidney, renders the mechanism of this symptom very obvious. Its great diagnostic importance will appear, if read in connection with another peculiarity of these abscesses—viz., their tendency to implicate either the pleura or lung, and by partially emptying themselves upwards, to greatly mask the origin of the disease. As the pus may follow the psoas downwards to the groin, so it may also be guided by it between the pillars of the diaphragm into the pleural sac, or, if adhesions exist, into the bronchi.

Dr. Bowditch's second case is a classical example of the importance of this, the more so as it is the only recorded instance in which recovery ensued. He was called to see a young man who was supposed to be dying of phthisis. The patient was in a state of orthopnœa, and was expectorating large quantities of pus, which seemed from time to time to pour out of his mouth with a kind of regurgitant effort. There was complete dulness over the lower lobe of the right lung, with bronchial breathing and coarse râles. Dr. Bowditch was at once struck by a peculiarity of the man's attitude: "He seemed sitting as on one glutæus, in order apparently to relieve the other side." A history of lameness, together with pain in the right loin of three months' duration, was elicited. The lumbar fold of that side was found obliterated. On this evidence an incision was practised in the loin, matter was reached, and the case made a good recovery. In both Dr. Bowditch's other cases there was some lung complication, although by timely interference the formation of abcess was avoided. From the cases which I have collected this would appear to be the most frequent, as well as the most formidable, accident against which we have to guard. Thoraco-centesis was performed by Martini (Schmidt's *Jahrbuch*, 1864) for an empyœma, induced by a perinephric abcess, which had taken the track I have indicated. In the *Lancet* (July 4, 1863) a short summary is given of three cases. In the first of these (under Dr. Gull) gangrenous pneumonia was set up with softening of the diaphragm without perforation; in the second (under Dr. Rees) the pus ran along the psoas, both upwards and downwards, passing between the pillars of the diaphragm in the one direction, and pointing in the groin in the other; in the third (under Dr. Barclay) both pleura and lung were involved, the pus being spat up in gushes during life. In a short analysis of twelve cases of perinephric abcess contained in Schmidt's *Jahrbuch* (1865) it is stated that five perforated the pleura. The same accident has been recorded by Desruelles, Cazalis, Demarquay, and Bernutz (Trousseau, vol. iii. p. 725).

Compared with this, other forms of spontaneous opening are rare. I know of but two instances in which the abscess pointed at the groin (Quain, *Path. Trans.*, vol. v., p. 179, and Dickinson, *op. cit.*); six of its emptying into the colon (Hughes, *op. cit.*; Chuckerbutty, *op. cit.*; Gintrae, *Journal de Bordeaux*, April, 1867; a case in the *Archives Générales de Medicine* for 1868; and two cited by Trousseau, *op. cit.*); one of its opening into the peritoneum (Trousseau, vol. iii., p. 735); and one of its opening spontaneously by the loin (Hullett Browne, *Path. Trans.*, vol. xiii., p. 131). The position of these abscesses behind the kidney readily explains the relative frequency of these accidents.

Of the other symptoms but little need be said. Trousseau has already given a most masterly and exhaustive account of them. We must form our opinion quite independently of the appearances presented by the urine, and of any history of renal colic. Including the cases collected by Trousseau, I have brought together twenty-six instances bearing upon this point. In two, where there had been recent severe injury to the loin, the urine was bloody. In five, free pus was found in more or less abundance, two of these cases having a puerperal origin. In one only was calculous grit passed by the urethra. In one, renal abscess was secondary to lithotrity; and in one it was associated with extreme irritability of the bladder. In five cases kidney disease was discovered after death, although the urine had been normal during life—viz., twice abscess, once calculous pyelitis, once tubercular and once cystic disease. In twelve instances the malady seems to have been set up without any evidence of concurrent disease of the urinary organs. In five of these, a violent strain to the loins seems to have been the exciting cause; three times it was induced by exposure to cold; twice it appears to have had a puerperal origin; in one remarkable case to have been secondary to ulceration of the

gall-bladder; whilst in one case no cause could be assigned. In a large proportion of our cases we must thus rely upon the deep-seated, spontaneous pain, often paroxysmal and aggravated by pressure, which ushers in the disease. This pain may vanish for a short time—days or weeks—and then recur.

The possibility of a protracted remission of this kind should be especially kept in mind; an error of diagnosis might otherwise result. Usually, however, once that the pain has set in it is persistent and increases steadily. With it we have daily rigors and the thermometric oscillations observed in acute hectic, followed by sweatings. After a few days or weeks a deep-seated, pasty swelling will be detected at the skirt of the erector spinæ, immovable with respiration, and the lumbar fold becomes implicated. Already in a great proportion of cases the characteristic position of the lower limb will be assumed. This is sometimes, but by no means constantly, associated with pain in the testicle. The question of Surgical interference may now be mooted. If the case be left alone, the pus may burrow downwards to the groin or forwards towards the umbilicus, or one of those perforations may ensue to which I have alluded. The characters of the fever, the one-sidedness of the pain, the attitude, exclude lumbago. The absence of tenderness of the vertebræ, and the shape of the spine, exclude caries. Hydronephrosis and cancer are chronic non-febrile affections. In the former the nodulated, often fluctuating form can be detected, whilst in the latter we often have recurring hæmorrhages from the urethra.

The results of puncture through the loin at an early date have been so favourable as to strongly recommend this method of treatment. Of seventeen instances thus treated, fifteen did well. One of the fatal cases was of puerperal origin, and was complicated with abscesses elsewhere; in the other the man was convalescent, after the puncture of an enormous abscess, but exposed himself to cold and got peritonitis. Mr. Wood is of opinion that there are evident anatomical reasons for preferring as the seat of puneture the groove at the outer edge of the erector spinæ muscles, between them and the quadratus lumborum, as in the operation for opening the colon. A vertical incision, about an inch in length, and placed about an inch and a half above the crest of the ileum, will be sufficient to afford a free exit for matter, whether with or without admixture of urine. The aperture is best kept open by a Chassaignac's drainage-tube. In two cases (Trousseau and Bowditch) smart hæmorrhage ensued from the opening. Considering the uncertainty of the character of the pus to be met with, it is as well to surround the wound with antiseptic dressings from the first.

List of the 26 cases collected to ascertain the frequency of urinary complication:—2 with bloody urine (Bergonnhioux, Bienfait); 6 free pus (Demarquay, Hughes, Evans, Gintrac, Chuckerbutty); 2 bladder signs (Trousseau, Nélaton); 5 kidney disease without bladder signs (Gull, Barclay, Rees, Quain, H. Browne); 12 without urinary disease (Trousseau [4], Tardieu, Bodin, Cavasse, Trélat, Ginboint, Bowditch [3]).

GREAT NORTHERN HOSPITAL.

CANCER OF THE MEDIASTINUM WITH EFFUSION INTO PLEURAL CAVITY.

(Under the care of Dr. JEPHSON.)

JESSIE R., aged 50, needlewoman, tall, thin, and cachectic-looking, with well-marked arcus senilis, was admitted as an in-patient into this Hospital in January of this year.

Symptoms.—Complains of dry cough, with most distressing dyspnœa. Pain in shoulders and left side; this latter increased after meals. Pulse 86; no fever; very weak, and quite unable to work. At times suffers from sickness; decubitus slightly inclined to the left side.

Inspection.—A multiple cicatrix is noticed on the left side of the thorax. Movements on this side seem nearly lost. On percussion this side is absolutely dull over its entire extent, the dulness extending across the lower half of sternum. Respiratory murmur heard slightly in infra-clavicular and supra-scapular fossæ; total absence of it in other parts; vocal fremitus increased; heart sounds heard under right nipple and sternum. The right side of chest apparently healthy.

History.—Her family were all very healthy. Her father died at 70, her mother at 84 years of age. From the time she was 14 years old till about twelve years ago, when she came to live in town, she suffered from headaches; not since. Catamenia ceased when 46 years old. In 1857 a tumour formed in the left breast, and was excised; the breast itself was removed in 1860. A small tumour appeared on the cicatrix shortly after, and was removed in 1861. In September, 1868, she was seized with a sharp pain in the left side, after being exposed to cold when perspiring. She had no shivering or fever. Mustard plasters quickly removed the pain, and her general health was unaffected. She was again seized with pain in the same situation as before about a fortnight after, for which she sought Medical relief, and got better of the pain, but lost flesh, became weaker, and suffered much from shortness of breath, for relief of which she presented herself as an out-patient in January last, and was admitted as before stated. She was examined by several of my colleagues at the time, and there appeared to be considerable doubt as to whether the dulness was due to consolidation of lung from cancer, or effusion the result of a previous attack of pleuritis, the balance of opinion being in favour of the former. Tapping was not resorted to. Her treatment was of the usual kind—tonics, etc. She showed great intolerance of quinine and opiates, even to the smallest dose of either. After being upwards of two months in the Hospital, she was removed to the country, her friends wishing her to have change of air. She died on July 11 last.

Post-mortem Appearances Thirty-six Hours after Death.(a)—The left pleura contained near three quarts of sanguineo-watery fluid; the left lung was found under the clavicle and third rib, about the size and shape of a lemon; the heart was pushed to the right of the mediastinum, and found to be fatty; the right lung was dotted over with dark spots, supposed to be melanotic. There was some emphysema of lung, but no fluid in pleural cavity, and an entire absence of the cancerous matter which was largely present on the left side; this cancer matter enveloped the œsophagus, covered the bones of the vertebral column, forming along the spine a hard mass, which extended along the ribs, and seemed to form quite an inner coating for them, as far down as the fifth and sixth ribs.

Remarks.—The case is one of importance, as showing that at times and at certain stages of the disease, particularly as in this case, where there was a large collection of fluid with external manifestations of cancer, it is no easy matter to say whether the dulness and other symptoms are attributable to a fluid or a solid. As regards the operation of tapping where a large quantity of fluid in the pleura is suspected during life, this case would, I think, go to prove that such would be contraindicated, as leading to no decided benefit. As to the situation of the cancer deposit, cases are, comparatively speaking, common enough where the disease is found in the form of a mass in the mediastinum, but, so far as I know or have read of, it is by no means common to find it deposited, as in this case, in the words of the narrator, "forming an inner coating for the ribs." As to the cause of the pleurisy and subsequent effusion, I think there can be little doubt that the irritation of the pleura by the deposit on or below its surface may be looked upon as the origin of it. And lastly, as to the intolerance of opiates and quinine in this case. Is it so generally in cases of cancer, or is this case an exception? I should have mentioned that one day, while in the Hospital, on raising her arm to her head she felt a pain in the left clavicle, and her arm dropped to her side. The morning after the occurrence I noticed a painful swelling on the sternal end of the clavicle. One of my Surgical colleagues examined it, and, from the history given of it as above, pronounced it to be cancer. I regret that the attention of the gentleman who made the post-mortem was not drawn to this.

(a) I am indebted for notes of the post-mortem to Mr. Faraker and Mr. Shaw, of Rotherhithe.

STATISTICS OF DISEASE. — It was lately stated that, in Bristol, in consequence of "the admirable arrangements of the city authorities for repressing the spread of infectious diseases," that out of a population of 66,027 only 38 had died of scarlet fever, whilst in the adjoining town of Clifton, out of a population of 96,687, 95 persons died of that disease. The *Echo* remarks:—"That a notoriously low-lying and crowded city could be made twice as healthy as an aristocratic watering-place on breezy downs, was a triumph of sanitary skill worthy to be recorded for the edification of the world. But the phenomenon is not wholly inexplicable. The worst slums of Bristol (in the district of St. Philip's) are included in the poor-law union of Clifton, and the deaths therein are, of course, credited to Clifton in the registrar's returns."

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 24, 1870.

VENEREAL DISEASES IN THE FRENCH ARMY DURING THE YEARS 1867 AND 1868.

During the year 1867 the total number of cases of venereal diseases in the French army was 46,278; of this number, 5694 having been treated successively during their progress, *à la chambre* and *à l'infirmerie*, before admission to Hospital, the real number of cases was 40,584, which, in an effective mean strength of 384,180, gives a proportion of 106 per 1000. This proportion was 92 in 1865 and 97 in 1866. There has consequently been an increase. A corresponding increase is observed in the proportion of venereal to all other cases, which was 47 per 1000 in 1865, 53 in 1866, and 57 in 1867.

This increase, however, occurred only among the troops in Algeria, as among those whose service had been entirely in France there was a decrease; and among the troops in Italy the proportion of venereal cases to effective strength was 73 per 1000, and to total sick 26 per 1000, while these proportions in 1866 were respectively 130 and 54. In Algeria, the increase of venereal diseases has been of progressive character, and has doubled since 1862. The proportions were—

In 1865, 70 per 1000 of effective strength, and 34 per 1000 sick.
1866, 86 „ „ 43 „
1867, 145 „ „ 71 „

This increase in Algeria coincides with the return of troops from Mexico, among whom venereal diseases had found many victims. On this point, the compiler of the report for 1867 remarks that it would not be correct to attribute the increase to this circumstance alone, as a still more considerable proportion is observed among the troops who had not made that campaign, or who had previously returned. In this we cannot agree, as we consider that the importation of fresh sources of infection by recently returned soldiers among the women, would sufficiently account for increased number and greater virulence of cases among men who had not been abroad, but who had associated with the same women.

Taking separately those regiments of which portions had returned to France, striking results are observed. Thus, in five regiments of the line to which the service battalions had returned from Mexico, the proportion of patients suffering from venereal diseases amounts to 142 per 1000, instead of 92, which is the average proportion among ninety-five other regiments and depôts on home service. In two battalions of *chasseurs à-pied* the proportion is 171, instead of 128; and in two regiments of cavalry 113, instead of 95; so that to the return of troops from Mexico may be attributed not only the remarkable increase of venereal diseases in Algeria, but the arrest of the diminution of such cases generally among the troops serving in France.

Of 1000 sick treated *à l'Hôpital*, 179 suffered from venereal diseases—that is to say, nearly one-sixth of the total number. The number of men non-effective from venereal diseases was equivalent to the loss of service of the entire army for 3·2 days, and of the men actually present 3·6 days. Each case was, on an average, thirty days under treatment.

In 1868, while the prevalence of venereal diseases among the troops serving in France remained much the same as during the preceding year—the number treated being in the proportion of 97 per 1000 of effective strength, and 53 per 1000 total sick—the similar proportions for the entire army were respectively 131 and 64. The increase was again limited to the army in Algeria, and was still more rapidly progressive, the number treated being in the ratio of 309 per 1000 of the effective strength, and 113 per 1000 total sick. The Medical officers in Algeria agree in recognising as the cause of this increase the miserable conditions of life of the Arab population, and the consequent prostitution of the native women. Even if it had been shown that the vital conditions of the Arab population had undergone a very decided deterioration within the last few years, we are of opinion that the introduction of fresh *contagium* from Mexico, as observed upon in the report for 1867, must still be considered as the true and only efficient cause for the rapid increase of enthetic disorders among the troops in Algeria.

The failure of the prophylactic measures is attributed as a necessary result of the poverty and misery among the Arabs. —"a state of affairs as general as it is difficult to modify"—rather than acknowledged as a probable symptom of remissness in their administration, or—*horribile dictu!*—admitted as hinting a doubt as to the efficacy of means of repression. If there be any disease against which a strict quarantine may be expected to prove effectual, it is surely that which we are now considering. We are firmly convinced that, by thorough inspection of the men arriving from Mexico previous to their disembarkation, the importation of the fresh *contagium* might have been prevented; and, at the same time, we recognise in the spread of disease in the new soil, in spite of the prophylactic measures employed after its first introduction, one of the strongest suggestive proofs of the relative inefficiency of measures of repression under circumstances naturally favourable to the development and spread of venereal diseases.

Of 1000 sick treated in Hospital, 181 were for venereal diseases, in the French army as a whole; this is the highest proportion yet attained. In Algeria the "*malades vénériens*" amounted to 234 per 1000 of the general sick, or nearly one-fourth of the entire number; in France itself they represented 166 per 1000 of the cases treated in Hospital.

Of 10,000 days under treatment, 2000 were passed by "*malades vénériens*," showing an increase of 130 over the average of the six years from 1862 till 1867.

The total loss of service from venereal diseases was equivalent to that of the whole army for 3·74 days, and of the men actually present for 4·45 days; in Algeria it amounted to 6·8 days of the effective strength, and 7·8 days of the strength actually present.

In the British army in the United Kingdom venereal diseases caused the admission of 291·5 men per 1000 in 1867, and 282·2 in 1868; so that in this respect our home army stands in much the same position as the portion of the French Army in Algeria. It may not be amiss, again, to mention that in the French army the term *malades vénériens* includes patients suffering from all forms of venereal diseases.

Among French troops in Italy, almost entirely quartered in Rome, the comparatively small amount of venereal diseases is worthy of notice. The relative proportions of *malades vénériens* to the effective strength and to total sick treated were—

In 1865	. . .	81	and 35
In 1866	. . .	131	„ 54
In 1867	. . .	73	„ 26
In 1868	. . .	29	„ 9

In the report of the French army for 1868, it is observed that the study of the influence of the first year of service on the prevalence of venereal diseases affords some interesting particulars. Whilst the average of cases treated was 154 per 1000 of the general effective strength, it was 275 per 1000 among men in their first year of service; and among *les vénériens* one-fifth of the sick were first year's men, who represented only one-ninth of the effective strength.

RESECTION OF SHOULDER-JOINT IN CONSEQUENCE OF GUNSHOT INJURIES.

This operation may now be said to have become fully established in the practice of military Surgeons. Like most other improvements in our art, it has had to struggle through many difficulties and doubts as to its utility. It had met with considerable support from Barons Percy and Larrey, during the Peninsular campaigns, though Larrey's operation appears to have been the picking out and removal of comminuted fragments rather than actual resection through the shaft below the seat of injury; but it did not become a recognised operation in the British army, possibly from too great an attachment to the operation of amputation in consequence of its success, and from magnifying the dangers attendant on excision, rather than from any experience of failure of the latter operation. At first, even Mr. Guthrie advocated the operation in such qualified terms as that, under circumstances favourable to recovery, excision was preferable to amputation. Subsequently, however, he expressed the opinion that amputation at the shoulder-joint should be confined almost to injuries from cannon shot or shells, or heavy machinery destructive of the soft parts as well as of the bones.

In gunshot injuries of the shoulder-joint, the rule of practice among British military Surgeons, after the battle of Waterloo, was either primary amputation or the expectant curative treatment. It is needless to say that the former gave by far the more satisfactory results, and was accordingly recommended in all such cases by Professor J. Thomson, who was doubtful as to the plan of excision practised by Larrey, and considered that the time and care necessary to complete the cure and the various accidents to which, during the period, the injured part must be liable, would render it of but little utility in military practice. No instance of excision was mentioned by Professor Thomson. Hennen also speaks of the comparative rarity of cases requiring excision of the head of the humerus, and of the doubtful utility of the operation; he had never seen it performed in the field, and did not regard it as an operation to be recommended in field practice.

During the Schleswig-Holstein campaign against the Danes in 1849, in which Dr. Louis Stromeyer was Surgeon-in-Chief, special attention was paid to resections of joints for gunshot injuries, and Dr. Frederick Esmarch, one of the Surgeons engaged in that war, published observations on the subject. He showed that in eight cases of gunshot wound of the shoulder-joint, in which the expectant curative treatment was pursued, five terminated fatally; and in the three survivors operative interference was called for after six months' treatment; while of nineteen cases of resection for similar injuries, only seven proved fatal, the cause of death having been pyæmia, which might have been prevented by more favourable hygienic conditions. More or less useful arms were saved for all the survivors, many of whom could even perform heavy work. He also makes the curious observation that resection of the left shoulder-joint gave less favourable results than the operation on the right side. This statement, however, has not been confirmed by the experience of American military Surgeons, as recorded in Circular No. 6 of the Surgeon-General of the American army, by whom it is stated that in 442 terminated cases in which mention is made of the side injured, the right shoulder was involved in 200 and the left in 242. The operation resulted fatally in 72 of the former, or 36 per cent.; and in 71 of the latter, or 29·3 per cent.

During the Crimean war, only 16 resections of the shoulder-joint were performed by the British Surgeons, and 38 by the French; the latter being in the smaller proportion to the total number of gunshot wounds; among the former, 3 deaths took place, or 18·9 per cent.; and among the latter, 21, or 55·3 per cent., proved fatal. M. Baudens performed 14 resections in Algeria, resulting in only 1 death. Among 935 soldiers invalided on account of gunshot wounds during the Indian mutiny of 1857-58, there was only 1 case of excision of the shoulder-joint, while there were 9 cases of complete removal of the limb at this joint. During the Italian campaign of 1859, Dr. Demme records 26 cases of resection, resulting in 19 recoveries and 7 deaths. He also shows that in 43 cases of expectant treatment, 29 terminated fatally, and observes that, unfortunately, amputation at the shoulder-joint was practised in very many cases in which resection might have been performed.

It is thus seen, notwithstanding its frequently recorded success, how long this admirable operation had to struggle before attaining the secure position accorded to it by the experience of the late civil war in America, during the early part of which, even, it was looked upon with doubtful eyes by some of the most eminent of the American military Surgeons. Dr. R. M. Hodges, while admitting the success of such operations for disease, and for traumatic causes, in civil Hospitals, was of opinion that, hardly excepting even those of the head of the humerus and of the elbow, excisions are not likely to succeed in the Hospitals of an army under any circumstances, and that to incline towards the side of conservatism in cases permitting of doubt, would be to see patients die whose lives amputation might have saved. He, however, recognised the superiority of excision in suitable cases to the gradual exfoliation of the fragments of a humerus injured by gunshot, but was of opinion that secondary excisions were more successful than primary, and therefore considered a certain amount of delay admissible in doubtful cases. The more extended experience acquired during the progress of the American war has put to rest all such doubts as to the utility of resection of the shoulder-joint, and has also proved that the primary operation is attended with better results than the secondary. It is creditable to the Surgery of that war that resections were more numerous than the complete amputations of the shoulder-joint, 575 instances of the former operation and 458 of the latter having been recorded. Of 237 terminated cases of complete amputation at the shoulder-joint, 93 died, or 39·2 per cent. Of the 575 cases of resection, the results were as follows:—

	Primary Operations.	Secondary Operations.
Died	50	115
Recovered	160	183
Undetermined at date of Surgeon-General's Circular, No. 6	42	25
	252	323
	575	

The percentage of mortality was 23·3 in the primary operations and 38·6 in the secondary, or a mean ratio of 32·5, being a percentage of 6·7 in favour of excision, as compared with complete amputation. In 36 instances of gunshot fracture of the head of the humerus, selected as favourable cases for the expectant plan, and treated without excision or amputation, 16 died, or 44·4 per cent.—a ratio in favour of excision of 11·9 per cent.

Of twenty-nine soldiers invalided on account of gunshot wounds received during the war in New Zealand, no less than six, or nearly one-fifth of the whole, offered examples of resection of the shoulder-joint. This large proportion of gunshot wounds of the shoulder is very remarkable, and not easily accounted for; and still more remarkable is the fact that all the wounds for which the operation was performed should have been received in the same action—namely, the engage-

ment at Rangariri on November 20, 1863. Another instance of resection of the same joint, in consequence of a wound received on the same occasion, occurred in the person of an officer. In the Army Medical Reports for 1863 and 1864, Professor Longmore, C.B., contributes two very valuable papers illustrative of the cases from New Zealand, and of the whole subject of resection of the shoulder-joint, from which we have extracted a considerable amount of the information given above. He observes that the occurrence of such a number of injuries favourable for resection of the shoulder-joint was probably accidental, but that the operations adopted for their relief were undoubtedly due to the advanced experience of the Medical officers who had to treat the cases. The six resections in the cases of soldiers were performed by three Medical officers—viz., one by Inspector-General Mouat, V.C., C.B.; four by Surgeon W. A. Mackinnon, C.B., 57th Regiment; and one by Staff Assistant-Surgeon C. C. Dempster. Dr. Mackinnon also performed the operation in the case of the officer, and subsequently in that of another soldier.

The operation in all the cases was secondary, and was that by a straight incision on the anterior aspect of the joint, in a direction agreeing with the position of the long tendon of the biceps. This is the operation known as Langenbeck's, which was chiefly adopted by the Prussian Surgeons during the Schleswig-Holstein campaign in 1849, and is recommended by Professor Longmore as the simplest and generally most effective method of resection. Least injury is done by it to the important structures connected with the articulation, and in it the use of the saw is easier than in any other method. The long tendon can also be more easily preserved. The importance of preserving this tendon is now generally acknowledged, although its division was formerly directed as one step in the operation by Larrey, Guthrie, and many others.

The same operation was generally adopted during the American war, although Dr. Hamilton and some other Surgeons considered that in gunshot or other comminuted fractures of the head of the humerus it was necessary to make an oval or V-shaped incision, so as to form a flap. Surgeon-Major Williamson, of the British army, also advocated the flap operation in his work on Military Surgery. Dr. Stromeyer, with the view of facilitating the escape of the after-discharges, proposed another mode of operation, by which the joint was opened from above and behind. Professor Longmore considers that the frequency with which an opening occurs posteriorly, from the passage of the bullet through the limb, and the facility with which a counter-opening can if necessary be made, render Stromeyer's objections to the single incision of no great weight; while, on the other hand, the ease with which the long tendon of the biceps can be preserved, and the whole resection performed by the single incision, are strong recommendations of the latter method. He considers that the various flap operations lead to comparatively very unfavourable results, and though necessary, perhaps, in some diseased conditions of the joints, to be no longer justifiable for musket-shot injury of the bone in such young and vigorous subjects as soldiers generally are.

The greatest length of bone removed in the cases operated on in New Zealand was about four inches. In the American operations, five and even six inches have been removed. Professor Longmore considers the rule laid down by M. Baudens to be a very safe guide to follow. It is to the effect that when the lesion extends beyond the neck the bone should not be divided below the insertions of the deltoid, teres major, and latissimus dorsi muscles, for on this condition alone can any movements of the arm be preserved. As the insertions of these muscles extend to a considerable distance, they may sometimes be partially removed, and successful results be still obtained. In all the cases commented on by Professor Longmore there was one noticeable feature—viz., the particular wasting of the portion of the deltoid muscle internal to the line of incision, or that portion arising from the outer third of the clavicle, as compared with the portions external and posterior to the line of incision. This wasting was evidently due to the unavoidable division of the terminal branches of the circumflex nerve and vessels in the operation. He also observes that, in whatever way the resection is performed, the elevating function of the deltoid muscle must be seriously compromised, in consequence of the loss of the fulcrum supplied by the pressure of the head of the bone against the glenoid fossa of the scapula.

During the homeward voyage of the patients from New Zealand, the arms of all were securely fastened to their sides by bandages under their clothes, in order to preserve them from injury. This entailed the loss of all passive or active movements for several weeks, and probably accounted for the wasted condition of the limbs on the arrival of the patients in England. Professor Longmore is of opinion that, under similar circumstances, it would be better simply to support the forearm in a sling, and to have the limb passively exercised, shampooed, and bathed with sea-water, under the directions of the Surgeon.

In Circular No. 6 of the Surgeon-General of the American army is mentioned the very remarkable case of Private Cleghorn, 1st New Jersey Cavalry, in whom, after excision of the head and upper third of the humerus, the remainder of the bone became necrosed, and was excised, together with the articular ends of the radius and ulna, and yet a limb was preserved which, with the aid of ingenious apparatus, was very useful. The retention of even a very partial degree of use of the forearm and hand is of such immense importance to the patient that even such extensive removal of bone may be considered justifiable in a similar case. It is also stated that in twenty-nine of the American cases portions of the clavicle or of the coracoid and acromion processes and neck of the scapula were excised, as well as the head of the humerus. Only four of these cases terminated fatally, and the average result in the recovered cases was as satisfactory as the ordinary result in decapitation of the humerus.

We have been informed that the Surgeons engaged in the present war are devoting much attention to the subject of resection of joints, and we anticipate, in due course, a large addition to our knowledge on this very important subject.

HUXLEY AND TYNDALL.

The meeting of the British Association for the Advancement of Science has this year been signalised by two very remarkable addresses. Huxley and Tyndall, alike and yet dissimilar, are both essentially men of the age, who speak with authority, and whose words are, to many, gospel. Huxley preached the doctrines of panspermatism, Tyndall dealt with the logical value of hypothesis in science, and the one at certain points complemented the other.

We are somewhat at a loss to understand the logical standpoint taken by Professor Huxley. In a former well-known address, he made us acquainted with his views as to the identity of the protoplasm—to use his favourite word—of sheep, lobster, and nettle; not only so, but of living man and dead sheep. Yet here we have him halting. Although there is no distinction between living protoplasm and dead protoplasm, yet he seems to hold that all life must originate in pre-existing life; the things are quite the same, yet totally different.

The position of heterogenists is unfortunate; ever holding their ground, yet ever compelled to recede, they have been forced to give up insects, molluscs, and entozoa; they have been compelled to fall back on the lowliest of organised beings, and of them the most minute. Still there are men who hold such views; their experiments have been conducted with all due regard to scientific accuracy, and are not to be lightly brushed aside with a half contemptuous reference merely. The speaker was consistent all through in dealing merely with one side of a

great question; but it was the speech of an advocate rather than that of a judge. Yet the researches of Pouchet were surely worthy of notice, and the recent very remarkable paper by Dr. Charlton Bastian, which appeared in *Nature*, might have drawn a passing reference. The inaccuracy argument cuts both ways. If panspermatists say to heterogenists "you must be wrong: some fallacy has crept in; we have taken the utmost care, and have found no life in our infusions," they lay themselves open to the retort that their microscopes have not been sufficiently powerful. If, after heating an infusion to the temperature of 150° C.—one and a half times that of boiling water—this infusion is sealed up by fusing the extremity of the containing glass flask, and yet after a time life makes its appearance, it seems to us that there is no longer any loophole open, save to reject heat as a test altogether. These results were obtained by Dr. Bastian, with the help of Professor Frankland, and they are at least worthy of attention. Certainly the question cannot be considered to be finally and conclusively settled.

The distinction between what is alive and what is dead will have to be fixed. Motion is a doubtful test; form still more so. Chemistry will not apply to beings of such minuteness. Those who have seen the very extraordinary results obtained by Mr. Rainey, of St. Thomas's Hospital, will be cautious in declaring what is organic and what is inorganic from outline merely, and the movements of exceedingly minute particles in fluid must yet be further studied.

It does not seem to us to invalidate the statement that life may originate *de novo*, that the spores of fungi are numerous, retentive of life, and readily take root in a congenial soil. This may be quite true, and yet minute moving particles may possibly originate in a different fashion. It is useless by way of argument to urge the presence of organic matter in the atmosphere unless it is also shown that this organic matter is living, in the ordinary sense. Will any one reflect on the composition of our London dust—organic matter it must contain, but it does not follow that it possesses vitality?

The address of Professor Tyndall, on the Scientific Use of the Imagination, might have been less palatable to the public had it been termed the logical value of hypothesis, but it, too, ended in a disquisition on the irrepressible germs. Practically, he advocated the infinite divisibility of matter, beginning with the generally adopted theory of light—a theory which necessitates a something moved, yet whose tenuity is hardly comprehensible. He next passed on to the nebular hypothesis, the matter of which comets are made, and the substance producing the blue of the heavens. By analogy he argued the extreme tenuity possible for organic matter, rendering it inappreciable by our existing scientific instruments, and yet possibly living, or at all events capable of living.

Here, again, is the hitch. Both Professor Huxley and Professor Tyndall talk of this organic matter as germs—living when a proper medium presents itself; dead apparently in the air. To settle the question, it is absolutely necessary that the one side should know what the other means. Life and death must be defined. But assuredly we have not come to an end of the dispute, assertion notwithstanding.

THE WEEK.

TOPICS OF THE DAY.

The authorities of Trinity College, Dublin, have determined on granting a new qualification—a Diploma in State Medicine—and have issued an elaborate programme of subjects of study recommended to candidates who desire to obtain it. These subjects are arranged under the heads of Law, Engineering, Pathology, Vital and Sanitary Statistics, Chemistry, Meteorology and Medical Jurisprudence, including Hygiene and Forensic Medicine. The examinations are to be conducted by Professors in these different branches of science. All will be glad that the subjects included under the term State Medicine are receiving special attention in the School of Physic of the University of Dublin; but the opinion of the Profession will continue divided as to the policy of creating a new Medical diploma and of introducing a new class of specialists into the Profession of Medicine.

A short note we have just received from our special correspondent at Sedan informs us that there were 400 wounded under the care of the Medical officers of the Anglo-American Ambulance. He tells us that, during the late actions, the ambulances were bombarded in spite of the flag. He himself had a very narrow escape, and one of the ambulance men was killed and another wounded. We hope before long to present our readers with some valuable reports of ambulance practice.

Accounts from the seat of war bring information that might have been expected, that the badge and red-cross have been most thoroughly abused. The special correspondent of the *Times*, writing from Bouillon, describes scores of men wearing the badge and cross seeking for spoil on the battle field, robbing the dead, or simply strolling about—mere tourists. A correspondent in the *Daily News* says, "one would think nowadays that half-mankind were born with a red cross on their left sleeve coat."

"Brassards seem to be obtainable for the asking, and the card of authority entitling one to wear them, almost so. There are gatherers of news, peddlers of merchandise, appropriators of others' property, and even spies, concealed under the potent emblem, and pursuing their various vocations by its aid. It furnishes not only safety from hostile attack by the troops of either army, and—more important in some localities: here, for example—from the vengeful fury of a fanatically suspicious and rash populace, but it entitles its wearer to material privileges not valued slightly by those who abuse them. For example, the most excellent Physician of the British Society, with whom I rode from Luxembourg to Esch, paid 55 centimes for his first-class ticket; I paid 2 francs 20 centimes for mine. The difference lay in his wearing the brassard. On a Prussian railway near the frontier, a few weeks ago, a tall young man, a student of pharmacy, insisted on chaperoning me into each and every aid-for-the-wounded refreshment saloon, or shanty, on the transit. He procured me and himself plates of steaming bouillon, piles of nice cake, bottles of old port, madeira, sherry, or seltzer and coffee, *à discrétion*. Once or twice I tasted, being tired of refusing, but usually I could not stomach articles, most delicious otherwise, which even my war conscience told me were wanted by those worse off than myself—especially as no pay was accepted when offered. In a few instances, however, when desperately hungry, with no eating-shop in reach, I yielded to the fragrant temptations, immediately putting aside a number of silver coins to be consigned to the next Aid Society collection-box I should meet. The red-cross man goes free on all State railways, takes possession of any empty place on any military transport waggon, provision van, or other official vehicle he may choose, occupies quarters such as he finds and chooses, in any village or town of the conquered territory, "seizes," or "requires," provisions and forage of every kind, wherever he may see or smell them—whether from private individuals resident in the enemy's country, or from the army provender; and very often he procures delicacies and tit-bits to his heart's content from the sanitary stores and supplies located at the various Hospital posts 'in the field.'"

Dr. McCormac, of the Anglo-American Ambulance, in a letter to Colonel Loyd-Lindsay from Sedan, gives a graphic sketch, illustrative of the blessings of chloroform in military Surgery and the *sang-froid* displayed by some of the French wounded:—

"All our beds were immediately filled, before they had even time to cool, with seriously wounded—some, indeed, of whom were in a dying state—whom the Prussians sent us, to make way, I am informed, for their own wounded people. The usages of war (I suppose this is one) seem sadly inhuman. We have got three new Surgeons to aid us, and Dr. Frank has got two, so we are not quite so overtasked by our work. The other day, at Balan, I assisted Frank with an amputation of the thigh of a poor chasseur, who had been just brought in. He had had his thigh badly smashed the first day of the fighting, and he was left to lie in a ditch for five days afterwards

without succour. He said he had had nothing to eat for two days before the battle, and that he had not tasted food since. As gangrene was imminent, we decided on immediate amputation. The first thing Lyon asked for (for that was his name) was a cigar, which he smoked with great zest until he was being put under the influence of chloroform. After the operation, and on regaining his senses, he requested permission to finish his cigar, as he would not like to waste it, and he might as well, he said, utilise the time until we were ready to operate. It was difficult to persuade him all was finished. For some days Lyon got on well, but now tetanus has set in, which will, alas! kill this brave young fellow. We had here, also, a remarkable instance of *sang-froid* in a light cavalry soldier. His hand had been shattered by an explosion of a shell. The amputation was done under chloroform, and only by repeated assurance and by the most undeniable evidence—that of the amputation itself and his shortened limb—could he be convinced that the operation had been performed. He was sent off to bed, muttering he did not understand the thing at all. A very few minutes after, while another man, whose leg required amputation, was being chloroformed, we were startled to see our horseman standing by, in his nightshirt, smoking a cigarette. He said he wished to know how we managed to operate without the person most concerned knowing anything about it, and he had just come back to see; and there he insisted on standing to watch me performing the amputation of the leg, chattering the while to those beside him, and puffing his cigarette, although it was certainly not fifteen minutes since his own arm had been cut off."

In the same letter, Dr. McCormac bears testimony to the bravery displayed by the Emperor of the French. The French wounded soldiers describe him as going about all day at Sedan in the thickest of the fire, encouraging the troops and exposing himself as though he courted death. The French prisoners, amongst whom are many sick, are said by writers in the *Daily Telegraph* and *Standard* to have been badly treated by the victors. It is stated that there is much small-pox amongst the French prisoners at Magdeburg and Wittemburg. The horrors of this terrible war have, it is to be hoped, reached their climax at Bazeilles, a town of a population of 3000, burned, with its inhabitants, including women and children, by the Germans.

Amongst the war preparations of Russia, it is announced that a military commission has been appointed at St. Petersburg to create a Medical reserve force of 1000 Surgeons.

The annual meeting of the British Association for the Advancement of Science is in some sense a kind of scientific stock-taking. Real and supposed profits, and losses in the shape of discarded theories and dubious facts, are published to the scientific world without reservation. We are apt to talk much nowadays of the advance of science; but whilst we do not dispute that great gain has been obtained, especially in the knowledge of details, we must not forget that we owe our supposed insight into the fundamentals of physical existence perhaps more to imagination than to observation. Much of our so-called advance is nothing more than the explosion of theories which in their day have been received as if they had been facts, and which, however useful they may have been as bridges to carry on the philosopher into a special scientific region, are found, when he gets there, to be entirely out of keeping with the prospect around him. From what Professor Roscoe said in his opening address to the Chemical Section at Liverpool, this seems not unlikely to be the fate of our old friend the atomic theory. Already some of the foremost chemists of the day are ready to discard it. Professor Roscoe said:—

"That with regard to the position of chemical science at the present day, it would not take a casual observer long to see that, in spite of the numerous important and brilliant discoveries of which every year has to boast, we were really but very imperfectly acquainted with the fundamental laws which regulate chemical action, and that our knowledge of the ultimate constitution of matter upon which those laws were based was but of the most elementary nature. In proof of this he (the speaker) need only refer to the different opinions expressed by our leading chemists in a recent discussion at the Chemical Society on the subject of the atomic theory. The president (Dr. Williamson), in a lecture he delivered, spoke of the existence of atoms as 'the very life of chemistry;' while Dr. Frankland, on the other hand, states that he cannot understand action at a distance between matter separated by a vacuous space. Sir B. C. Brodie and Dr. Odling both agreed that the science of chemistry neither requires nor proves the atomic theory, the former pointing out that the true basis of this science was to be sought in the investigation of the laws of gaseous combination, or the study of the capacity of bodies for heat, rather than in committing ourselves to assertions incapable of proof by chemical means. Agreeing in the main himself with the opinions of the last two chemists, and believing that fact and theory should be well distinguished, he (Professor Roscoe) would remind his hearers that Dalton's discovery of the laws of multiple and reciprocal proportions, as well as the differences in the power of hydrogen replacement in hydrochloric acid, water, ammonia, and marsh gas, were facts; while the assumption of atoms was, as far as chemistry was as yet advanced, a theory."

In the Geographical Section, Sir Roderick Murchison left the special subject of his address, to defend what he called "sound geological history" from the doubts thrown upon it by Dr. W. Carpenter, Professor Wyville Thompson, and other naturalists, who have based their inferences on deep-sea explorations. As to the value of these inferences we express no opinion, but a defence of "sound geological history" against inferences from recent observations seems ominous, especially when we recollect that sound geological history is in reality itself nothing more than a tissue of inferences.

A death from the bite of a ferret is reported to have taken place at the Dorset Hospital. The patient was an old man. He was bitten on Monday, and died from gangrenous inflammation on Thursday morning.

The births and deaths in London were last week below the estimated average—the former 139, the latter 145. Scarlet fever is still prevalent; it caused 157 of the 372 deaths from zymotic disease.

OPENING OF THE ROYAL ALBERT ASYLUM FOR IDIOTS.

This ceremony took place on Wednesday week under very imposing and cheering circumstances. The proceedings were under the presidency of the Duke of Devonshire, supported by an influential and numerous body of gentlemen. It is intended at once to admit fifty cases to the Asylum, which is fast approaching completion. The large sum of £73,000 has been contributed by the northern counties for the building and sustaining this splendid and useful edifice. To Dr. de Vitre, the head of the Asylum, for his indefatigable and valuable labours, the Institution and its supporters are deeply indebted. The committee and subscribers may congratulate themselves on the progress of their great and humane undertaking.

BRITISH MILITARY SURGEONS AT THE SEAT OF WAR.

We mentioned in our last number that political considerations were likely to interfere with the dispatch of Staff Surgeon Dr. de Chaumont and Staff Assistant-Surgeon Count Wollowicz to the Prussian head-quarters. The information has proved correct, the orders given to these officers having been countermanded almost at the last moment, when all their preparations were made. Dr. J. H. Ker Innes, C.B., Deputy Inspector-General of Hospitals, the principal Medical officer at Dublin, and Staff Surgeon T. G. Fitzgerald, have proceeded to Berlin instead of the former officers. We hear that Dr. Innes arrived at Berlin on Tuesday last, and was about to start immediately for the Crown Prince's head-quarters.

GOVERNMENT MEDICAL SANITARY APPOINTMENTS.

It is reported that the Government intend greatly to increase the number of Medical officers who are employed for the purposes of sanitary supervision under the Privy Council; in fact, it is said that the whole of the kingdom is to be divided into sanitary districts, each under a Medical officer with a salary of

not less than £600 a year. The next Civil Service estimates will contain particulars of the charges which will be incurred to meet this necessary expenditure.

ARMY MEDICAL DEPARTMENT.

We hear that there will probably be an examination in February next for the admission of candidates into the Medical service of the Army. We have as yet, however, no information as to the probable number of vacancies. There having been no admissions since October, 1868, gentlemen entering the service in February will do so under comparatively favourable circumstances as regards promotion, as there will be a hiatus of more than two years between them and those immediately above them. But, unless some radical change be soon introduced, the promotion of the latter class of officers will continue to be a very remote object for their aspirations.

THE METROPOLITAN MUTUAL MEDICAL AID SOCIETY.

We have received a list of the Medical officers appointed by this Society for the various districts of London—a list and a Society the existence of which we regret. Without care exercised to the utmost—and we do not see who is to take it—this Society must do vast injury to the general body of Practitioners, without, it appears, any compensating good. People who are able to pay the sums necessary to become affiliated to this Society can afford to pay an ordinary Practitioner. Moreover, the selection of one man for any district must be invidious. The other Medical men of the district will not feel it pleasant to have their patients drafted under his care because the annual sum paid to the Society is a shilling or two less than their ordinary bills.

THE GAMGEE PROCESS FOR CURING MEAT.

We much regret that the meat cured by the sulphurous acid process, and sent out to Australia, has arrived in an unsatisfactory condition. The tropics have been too much for it. We trust, however, that Professor Gamgee will not be discouraged by his temporary want of success. Certainly, the new antiseptic he has introduced under the name of chloralum, or a chloride of aluminium, is a very powerful preservative from putrefaction.

HEALTH OF THE HOLBORN DISTRICT.

Dr. Gibbon, the Medical Officer of Health of this district, has just issued his fourteenth annual report. This document is in most respects very satisfactory, and the labours of Dr. Gibbon are commendable. The following extracts are worthy of a wide circulation, and we therefore offer no apology for introducing them to our readers:—

Small-pox and Vaccination.

"The year 1869 is the first in which we have not had to record a single death from small-pox. During the three previous years the deaths from this very loathsome and contagious disease were 30, 33, and 20, respectively, and the average for the previous ten years was as high as 14·8 per annum. The cases of the disease, treated by the Poor-law Medical officers, were only three slight ones imported into the district, whereas in the three previous years they treated 136, 161, and 90 cases, respectively. It is most gratifying to witness the almost entire extinction of this distemper. For this happy result we have, in a great measure, to thank the extended system of vaccination under the new law. The vaccinations performed by the public vaccinators of the district have increased in number from 837 last year, to 1535 this year. This great increase has been effected without having to put in force the very stringent powers of the new Act in more than five cases. Hitherto the new Vaccination Act has certainly had the effect of increasing the practice of vaccination, but I fear the step just taken by the Privy Council Office of reducing the three to one public vaccinator for the whole of the district, except the liberty of Glasshouse-yard, will have a prejudicial effect. The number of births registered in the district during the year, exclusive of those in the liberty of Glasshouse-yard, was only 1292, so that to obtain 1535 successful primary vaccinations within the year is a very satisfactory result."

With respect to relapsing fever, of which he gives a short and graphic account, he says:—

"We were very fortunate in this district, because, although the disease was introduced into six houses—viz., into two on Saffron-hill, one in Vine-street, Fleur-de-lis-court, Richbell-place, and Charles-street—it did not spread beyond the houses in question. In all we had only fifteen cases, five of which occurred in one house in Fleur-de-lis-court, Gray's-inn-road; twelve were sent to the Fever Hospital; only one died out of the fifteen cases. In every case we took special pains to cleanse and disinfect the houses, as well as the clothing of the persons attacked. It is to this that I attribute our comparative immunity from the pestilence. In the adjoining district of St. Giles's there were 241 cases and six deaths. As an illustration of the agency of clothing in spreading the infection, I may mention the case of three persons who were admitted into the Fever Hospital from No. 2, Fleur-de-lis-court. Their clothing was—in accordance with a new, and, as I think, very objectionable, regulation—immediately sent, without any previous disinfection, to the house from which they were removed, and these clothes were subsequently washed by a mother and her daughter living in the same house, who held no communication with their owners. These women, aged 39 and 21 years, were both seized with the disease, and three days afterwards were also sent to the Fever Hospital. I addressed a letter to the authorities of the Hospital, calling their attention to the danger and risk attending their new regulation, and conferred with the Board of Guardians as to the best means of obviating the risk of infection from such returned clothes; whereupon that Board promptly authorised me to have the clothing of patients sent by the Union burnt. This has accordingly been done."

"The deaths from the only other preventible blood disease—congenital syphilis—amounted to 11, being an increase of 7 on those of the previous year. The number of cases treated by the parochial Surgeons amounted to 18, against 17 last year. These figures do not, as I have before explained, represent more than a tithe of the disease and deaths that have really resulted from this cruel distemper. Some six years ago the Legislature wisely, as I think, passed an Act of Parliament for the express purpose of preventing this disease at certain naval and military stations, and the measure appears to have been very successful. A formidable agitation has been raised against this Act, more especially against its extension for the protection of the civil population. Whatever may be the issue of the controversy, I think both parties might agree on some measure that would limit this wide-spread and fatal disease: as, for instance, the suppression of prostitution in our public streets—a measure which would preserve public morality, and prevent a vast amount of contagious venereal diseases.

"*Hospital for Sick Children.*—I am happy to report that the additional ventilation and closet accommodation ordered to be provided in the out-patients' department of this Institution has been carried out in a satisfactory manner. Having traced several cases of the infection of scarlet fever, hooping-cough, and measles, to the prolonged attendance in these out-patients' rooms, I have asked the Medical Department of the Privy Council whether children suffering from these highly contagious diseases can be prevented from being mixed up for several hours with numerous other children not suffering from similar diseases. The Privy Council scarcely thinks the 38th section of the Sanitary Act will apply to the waiting-rooms of Hospitals as a '*public place*,' but it has promised to bring the subject before the authorities of the Hospital, who I trust will see the necessity of adopting some effectual precautions against the infection of these diseases, as they already do against that of small-pox. Certainly *wilful* exposure to the infection of these diseases is *now* equally illegal as exposure to small-pox."

We think the guardians of the Holborn district have exercised a wise discretion in giving plenary powers to their Medical officer, and that their example should be followed in all districts.

FROM ABROAD.—THE WAR IN FRANCE—STAMMERING AS AN EXEMPTION FROM MILITARY SERVICE.

Although we are all anxiously hoping that so terrible a catastrophe as the bombardment of Paris may be averted by negotiations, yet it is highly satisfactory to learn the efficient

means which now exist for treating the wounded in case of these failing. It is said that the Administration has now 15,000 beds disposed in spacious, well-ventilated, and well-arranged localities, besides having it in its power to avail itself of the offers of multitudinous private residences. These, however, it will only have recourse to on emergency, as it is highly desirable that the military Medical authorities should have the wounded well under their own eyes and hands, efficiently aided as they will be by voluntary co-operation. Moreover, it is felt that, in the terrible eventuality of the enemy penetrating into the streets, the exhibition of red crosses from numerous habitations, although it might secure their protection, would cause those of their neighbours to incur a greater proportional danger. It will not excite surprise that one of the grandest ambulances is that organised by Dr. Chenu at the Palais de l'Industrie, as the Chef du "Comité Médical de la Société Internationale." It provides 1200 beds, a number which, indeed, some regard as too large. We have, however, every confidence in the experience and power of organisation and adaptation of Chenu; and it is certain that, had his repeated impressive and alarming warnings been heeded by the late Government, the disgraceful want of system and perversion of system which prevailed during the Crimean and Italian campaigns would have been amended, and the terrible repetition of their consequences now exhibiting would have been prevented. Pastor Pressensé and others, who have given an account of their experience in the French volunteer ambulances, emphatically declare that the Medical and sanitary force at the disposal of the French army in the present war is utterly insufficient, and that, had it not been supplemented by this voluntary aid, large numbers would have died utterly untended within the French lines—and that, be it remembered, when the onus of providing for the great majority of the French wounded has been cast by the fortune of war upon the Germans. The Surgeon-in-Chief, Larrey, who repeatedly, though ineffectually, sought to have Chenu's suggestions caried into effect, has, we learn, returned to Paris. He was not able to penetrate into Metz, as supposed, but was at Montmédy until the siege was raised. One lamentable defect in the French organisation has been the absence of means of ascertaining the number and the identity of the lost and wounded. Not only is this administratively bad, but it causes an immense amount of suffering to the relatives of those engaged in the war, who are now besieging the War Office from morning to night with ineffectual inquiries. No excuse can be suggested, for the American army during the secession war took every necessary precaution; and the Germans in the present war, by means of the simplest of arrangements, at all events prevent uncertainty from being added to the other calamities entailed by this dreadful contest.

In the noble rivalry which has seized all Europe in contributing to the succour of the wounded, little Belgium plays no mean part; for, while its trade is well nigh paralysed through the contention of its two important neighbours, it has cheerfully undertaken the charge of many thousands of wounded, placing them in the most commodious localities, and surrounding them with every care. The Brussels Municipal Council at once voted 100,000 francs as a first contribution to the expenses, and ambulances are rapidly organising in every direction. The Belgian contingent of red cross bearers on the field of battle and in the besieged towns was already a large one. As soon as the immediate urgency of tending the wounded has been met, the attention of the humane will have to be directed to the condition of the peasantry in the occupied departments. By all accounts, their state is deplorable beyond description; and famine, with its inevitable companion pestilence, awaits them on the approach of winter. The mere financial loss incurred in the seven occupied departments, not yet including that of the Seine, is estimated by the *Journal d'Agriculture* at 1000 francs per hectare, taking into consideration lost harvests, removed cattle, and the prevention of tilling and sowing. The surface of these seven departments measures 4,278,134 hectares, and the loss, therefore, amounts to more than four milliards of francs, to say nothing of violent deaths, German requisitions, and ruined fortunes.

Among the Medical journals, the *Union Médicale* and *Gazette Hebdomadaire* still appear, and—better supplied, we suppose, than some of their political contemporaries with a stock of paper—seem determined to go on. We hope they may do so, for their mode of meeting the emergency is manly and courageous, unaccompanied by the idle boasting and vituperation which disgraces the Paris press. M. Dechambre, of the latter journal, anticipates that, after the present calamities have passed away, much good will result if the popular initiative now infusing vigour on all sides only survives its provocative cause. The *Union Médicale*, perhaps more prudently, only concerns itself with the present, and points out how much Medicine may do in the emergency, not only by its care of the sick and wounded, but also as the authorised adviser in hygiene. To the importance of this last the Government are fully aroused, and have appointed effective committees for the consideration of the matter and making the necessary provisions. Large stocks of important medicines have been laid in—as quinine, bismuth, opium, chloroform, disinfectants, and antiseptics; and, looking to the possibly long duration of the siege, salted meats are also preparing on a large scale. As long as fresh vegetables, of which the Parisians are accustomed to consume large quantities, can be got, no inconvenience will attend the prolonged use of such food; and it is said that the supply of potatoes secured is truly enormous—these acting not only as a good article of diet, but in their raw state proving one of the best antiscorbutics. Large quantities of cider apples have also been brought in from Normandy.

That confidence, at all events, exists, may be judged from this passage from M. Latour's animated exordium—"All the measures already taken, as well as those which are in course of rapid execution, ought to inspire confidence and security. Paris will be able to endure a long siege, without having anything to fear as regards its alimentation, which will continue wholesome, abundant, and placed beyond all greedy trafficking. As to the defence, all those who were present yesterday at the review by General Trochu of the National and Mobile Guards returned with the encouraging hope that Paris is invincible." Several Medical Practitioners have been appointed as Préfets of Departments in lieu of those displaced. Whether that is a matter of congratulation to them or the Profession time will show.

M. Chervin, Director of the "Institution des Bègues" at Paris, in a recent memoir on "Stammering as a Cause of Exemption from Military Service," observes that the most scrupulous examination of the organs of speech does not generally enable the examining Medical officer to discover any alteration to which he can attribute the infirmity in question. He is reduced to a consideration of probabilities, and an appreciation of the exaggeration that may take place in slight cases. Whatever, however, may be the strength of the presumptions which he derives from scrupulous examination, it is seldom that he can dispense with a public inquiry, such as is often necessary in cases of deafness and dumbness. Stammering being an affection liable to frequent intermissions, it not infrequently happens that young conscripts who are great stammerers reply without hesitation to the questions of the examining officer, while, on the other hand, some of those whose stammering is in general only slight, under the influence of the emotion produced by the examination, find themselves unable to articulate a single word. In presence of two such classes of cases, exemption from service becomes a mere chance, and it is the public inquiry alone that can be relied upon. Claims for exemption must have the signatures of three fathers

of families, who have an interest in the question of exemption or non-exemption. So much the worse for themselves, if they do not conform to the rules of the inquiry, for they suffer in the persons of their own children. Stammering is of more frequent occurrence than at first sight would be supposed, and than is generally believed. In the 15 years 1852-67, there were 10,148 exemptions of conscripts, from this cause, and exemptions from the Garde Mobile will amount to about 1000 per annum. As this affection is capable of cure by vocal exercises, these methods should be put into force in all the primary schools, and stammering declared to be no longer a ground for exemption from military service.

THE CONTAGIOUS DISEASES ACTS AT PLYMOUTH AND DEVONPORT.

(*From a Correspondent.*)

I AM no advocate for or against the Contagious Diseases Acts, but, as a man and a Physician, I would gladly welcome any means of lessening the grand sum of human misery. It is not often that I have on my Hospital list fewer than half-a-dozen married women—women I have every reason to believe virtuous—sometimes, also, with their children, suffering from some form of venereal disease, most frequently syphilis. Knowing what a horrible disease this syphilis is—the life-long suffering and premature death it too frequently entails—one cannot help pitying these innocent victims of the faults of others. Any means, therefore, consistent with law and morality, whereby the propagation of this fell distemper may be arrested or diminished, should be welcome to a man with manlike feelings. Further, as this disease is chiefly propagated by one class of the community, the numbers of which is fortunately limited and generally well defined, the most feasible mode of dealing with it is surely in attacking it in those by whom the disease is spread. The condition of a common prostitute is not an enviable one. She has been cast out of the pale of society, and she is reckoned amongst the vilest of the vile; nevertheless, for whatever reason it matters not, she has voluntarily accepted the position, with all its drawbacks, for what must be certain compensatory advantages. On which side of the balance are we to place certain restrictions wholesome to herself and fraught with safety to the body politic? The dread of disease has never been able to arrest men or women bent on such courses, otherwise the disease itself would have long ago been arrested; some other measures must be adopted to shield—not the guilty, but the innocent. Why should syphilis be the only kind of poison, the administration of which is to be winked at or even commended? These and such-like considerations lead me to look upon the Contagious Diseases Acts as perfectly legitimate pieces of legislation; the pity is, they should be necessary.

Plymouth and Devonport constitute a great naval and military station, the garrison and fleet usually containing 10,000 men. Government considered itself justified in enforcing these new laws there with a view to securing the more effectual service of their servants, and, beyond all cavil, with good effect, the average number of men on the sick-list having both numerically and proportionally lessened. It is further to be noted that the women in the first instance submitted to the laws willingly enough; and it was not till the "ladies" came, to use one of their own expressions, that any organised opposition was attempted. A certain number of people, however, became impressed with what they considered the injustice of these Acts, and set up an agitation for their repeal, but mainly directed their endeavours to obstruct the working of the Acts. No doubt these people are honest; certainly they are very earnest; unfortunately they are also mistaken, and consequently all the more mischievous.

I have taken much trouble to acquire a satisfactory knowledge of the working of these Acts in Plymouth and Devonport, and I have tried to take an unbiassed view of the whole question at issue; and, having done so, cannot but condemn emphatically the action of those working against the Acts in these places.

When the Acts first came in force the number of women who were entered on the register was about 2000; since that time the number has gradually diminished until now—when the machinery is much more perfect—there are about 600 altogether. This decrease will by most people be looked upon as a gain to morality, if it be not more than neutralised by the spread of clandestine prostitution. I am not aware that this has been proved by the opponents of the Acts; whilst, on the other hand, there is the direct assertion that it has not by the best informed in Plymouth—an assertion supported by the fact that the ordinary women of the town, bitterly resenting such practices, constitute so many spies on the conduct of their better-conducted sisters, immediately giving information should they see anything improper in their conduct. And yet the number on the register has diminished. In one respect there has been a decided gain: many women married to sailors, and leading a loose life in their frequent absences, have been restrained by the dread of a public exposition of their behaviour, and the consequent stoppage of supplies from their husbands. With this diminution of their numbers there has been an increase of material prosperity among the women. How men will reckon this—for good or evil—I know not, but so it is. The women are better clothed, and apparently better conditioned than before the introduction of these Acts; and this is shown also among them by a greater tendency to become pregnant.

As they have to present themselves for examination once a fortnight—and they must prepare themselves for this—a certain degree of cleanliness, unknown before to many, is enforced; and to it they are further accustomed in their visits to the Hospital. Outwardly, therefore, prostitution is rendered less repulsive. Many will think this the contrary of a gain; but so it is.

But from my point of view by far the greatest gain is the detention in Hospital, to the women themselves; the inspection also is an advantage. In London here many women of their own accord, if not regularly, at least on the slightest suspicion, consult a Surgeon as to their condition. The early detection of disease and an early arrest of its propagation must be for the benefit of the public health; for, as I have already shown, the guilty do not suffer alone.

If we consider the state of things among the lower class of prostitutes here in London, and compare them with the condition of the sisterhood in Plymouth, the advantages of the latter are very striking, if anyone has seen the horrid appearance of some of these diseased prostitutes—cases, too, which one must turn away for others worse still. And to know that these wretched creatures can do nothing else than continue their course of life is very dreadful. I have heard of such women pestering men with solicitations, and, finding that useless, beg for pity a few coppers to retire to a coffee-house to clean themselves of the filth of disease. I do not know that there could be a more cogent argument for a Contagious Diseases Act than a visit to the civil and governmental sides of the London Lock Hospital, and a comparison of the terribly malignant shape of syphilis in the one and its usual mildness in the other. But it has been said, increase the Hospital accommodation, and render that of more easy access to fallen women—no doubt this would be of some use, but not enough. It was the experience of the Surgeons of the Lock Hospital, as it is the experience of others elsewhere, that women could only with difficulty, and sometimes not at all, be kept quiet until they were well. One of their great grounds of complaint now is, that they are sent to Hospital when nothing is the matter with them; and silly, ignorant people believe them. My own experience is—and I doubt not that of others is similar—that, in a very considerable proportion of cases of secondary syphilis, no history of any primary sore can be obtained. And, again, it has yet to be settled what uterine discharges are capable of producing disease. Certain it is that a woman apparently healthy may be quite capable of propagating venereal disorders. A woman who has been thoroughly saturated with syphilis, and leading a dissipated life, is constantly subject to relapses; and it is generally admitted that certain of the eruptions thus arising are capable of propagating the disease. Whilst firebrands like these women exist, syphilis will not be eradicated.

But all these considerations go to show that some power of restraining these wild and wayward women until their cure is complete is necessary. The whole thing is marred if, after a trumpery quarrel with a nurse for paying more attention to one than another, a woman yet unhealed is allowed to leave the Hospital; and it is better that one should be kept too long than

dismissed too soon. The Practitioner who knows least of these things would be the first to give a decided opinion one way or another; but a man concerned in such matters cannot be over cautious.

We come next to consider the action taken by those opposed to the Acts; this I am sorry to be compelled to condemn. Undoubtedly some of them are terribly in earnest, which is all the worse, as one cannot exactly see their grounds of that action, one can only hear or see its results. There are three conceivable grounds—the interests of morality; the belief that these diseases are heaven-sent, as deterrents to or punishment of a particular sin; finally, there is the belief that such laws interfere with the liberty of a certain number of people for the interests of others. Perhaps different individuals are influenced to take part in this opposition by different motives, but I cannot see that any one can do so on the grounds of morality alone, since both sides alike profess a readiness to assist the unfortunate to leave her degraded mode of life. But here is a passage from the circular so freely and so mischievously distributed by the opponents of the Acts among fallen women:—"A woman who is faithful to one man is not a common prostitute, and should resist the attempt to bring her under the Acts." A woman living with a man not in the bonds of wedlock must by all Christians be considered to be living in a state of sin, yet in the circular there is not a single word said of marriage—at best it is an advocate for immorality.

Of course, from my point of view, any one favouring the spread of these diseases would be guilty of an immoral act—were the guilty alone affected it would be different, but that is not so. Now, the charge has been brought against those fighting against the Acts, at Plymouth, of deporting women who had been summoned to attend for examination, on the grounds that they were suffering from disease, or who were known to be so afflicted, rather than allow them to be treated under the Act. If this be true, and I have reason to believe it is, they were actually doing their best to spread contagion.

As to liberty, if we are to accept utilitarian views—the greatest happiness to the greatest number—the argument would be worthless. But from another point of view, it does not hold good—were these women compelled to remain in their degraded position it might; but in point of fact, every effort is made to rescue them from their fallen state. If they remain in it, they accept the position with all its drawbacks—contagious diseases and all.

But, again, it seems to me that the action taken by these well-meaning people is more dangerous still in another direction. It may be all very well to do one's utmost to rescue the fallen, but, in the interests of public morality, it is somewhat dangerous to convert a common prostitute into an injured heroine fit to be the object of chivalresque devotion. People may know what they are talking about when they declaim about the fine feelings of a common harlot; for my own part, I know they are very hysterical, but their delicacy has the chill off. Furthermore, the opposition to these Acts has conveyed into households the knowledge of evil where heretofore such things were unknown and undreamt of. The older I grow, the more I am inclined to believe in the purity which springs of ignorance; knowledge is too frequently of evil, from the apple downwards, and this agitation has taken the bloom of innocence in thought off many a domestic peach. Here is a sample of the Contagious Diseases Acts' heroine. A woman, married to a respectable man, knowingly and wilfully went wrong, and broke up his home. After a time he again received her, and again she sold everything belonging to him, and went to live with another man. This man was married, and had a family, which he had deserted. The woman came under the Acts, and was brought up before the magistrates under the influence of the opponents of these Acts; this man had the audacity to come forward, and to declare she was living under his protection, and consequently that the Acts had no power over her. *O tempora, O mores!*

There is much more I might write, but I am getting sick of my subject, and shall conclude with an extract from one of the Society's circulars, a sample of the attempts which are being made to convert a social question—one which affects all alike, gentle and simple—into a war between classes. It is addressed to the working men of Plymouth, on the occasion of the recent election, and runs thus:—"Ask him (Sir Robert Collier) if he is going to attend to your interests as a Liberal should, or to those of the licentious upper classes—ask him to vote for the repeal of these Acts at once, without reference to any Royal Commission, or that their working shall be stopped during the inquiry." But enough of this. Σ.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

(*From our own Correspondent.*)

LIVERPOOL, September 15.

THE Sections commenced on Thursday in earnest, and the interest taken in their work is refreshing to see. I will put what I have to report to you in order, according to the Section in which what is to be described took place.

SECTION D.—BIOLOGY.

The rule seems now to be firmly established that the three Departments—Anatomy and Physiology, Zoology and Botany, and Anthropology—shall be conducted separately, but be conformed under one general head—that of Biology—the members of the committee or the governing body of the Section being drawn from all the Departments. This method answers well, and serves to remove all the old jealousies between zoology and pure physiology, and between both these and anthropology, which formerly existed. I may add that now all these Departments are well attended, and that the discussions are carried out with energy and much variety of thought.

PROFESSOR ROLLESTON'S ADDRESS.

The Biological Section was opened by Professor Rolleston, the President of the Section, all the Departments of the Section assembling to listen to him. The address, which touched on many topics, included an earnest appeal on behalf of the teaching of natural science to the young, and to what, in brief, may be called rural district teaching of science. He wished that in every district there existed a Gilbert White to write its natural history as White wrote that of Selborne. He urged the desirableness of establishing field clubs, and expressed an opinion that it was to the development of provincial museums that we must look in the future for the extension of intellectual pursuits throughout the land. From these museums, while the chief object of them should be to obtain collections from the districts in which they were placed, he would not exclude foreign specimens, but he insisted upon the proper classifying and cataloguing all specimens. While not depreciating scientific instruction as a means of training the mind, he cautioned scientific students against the neglect of literary pursuits. Proceeding to review the subjects which will be considered in the Section, Professor Rolleston said that one of the most important of these subjects—that of spontaneous generation—touched upon certain susceptibilities lying outside the realm of science. He, however, reminded his audience that in the Sectional discussions they had only to do with the scientific arguments bearing upon the questions; and he hoped the committee would be supported by the members in excluding all extraneous considerations. Truth being one, all roads leading to it would assuredly converge sooner or later—their business was to see that the road with which they were particularly concerned was properly laid out. In this view he was glad to be able to fortify himself by the dictum of Archbishop Whateley—"The possessor of real faith will be fully convinced that whatever suppressed physical fact appears to militate against his religion will be proved to be natural or else be reconcilable with his religion." The archbishop further said, that if he were to found a church, he would make it one of his articles that it should not be lawful to bring forward Scripture or religious considerations to disprove scientific theory, which only should be applied in the region of morals. He (the lecturer) wished that Archbishop Whateley had founded such a church. (Hear, hear, and cheers.) This and other testimonies which he quoted were most important, but he could not forbear to point out what might seem to be a want even in the dicta of such men. They had allotted the privilege of error of teaching to the utterances of only one of the parties concerned; they had forgotten the woe which religious men and theologians had brought upon the world because of the offences which they with ill-considered zeal had created. They had left something unsaid which might be summed up in the homely observation, that there may be faults on both sides. He trusted that discussion upon the scientific aspects of these great questions would not be restrained, it being kept in mind that mutual forbearance might slacken progress as well as excite mutual jealousies. In conclusion, he expressed a hope that the Association would adopt some means to carry out the suggestions he had made in the opening of his address. He said he would

be more than satisfied, and all his objects would be fully accomplished, if only as much money could be obtained for these purposes as was lost to the people every year through suffering and death, occasioned directly by ignorance of scientific facts and principles relating to sanitary arrangements alone.

After the delivery of the above address, which was most favourably received, the general meeting broke up into its Departments. Professor Rolleston presided over the Zoologists, Professor Michael Forster over the Physiologists, and Mr. Evans over the Anthropologists.

REPORT

On the Physiolggical Action of Organic Chemical Compounds.

By Dr. Richardson, F.R.S.

The reading of this report formed the first work of the Physiological Department, and it called together a large audience. The report was in continuation of the labours of previous years, and was considered under three heads—(1) Review of results of preceding work; (2) Record of new inquiries; (3) Some general physiological inferences from experiment. The author, under the first head, noticed the practical uses that had followed upon his previous reports in regard to nitrate of amyl, bichloride of methylene, methylic ether, and Liebreich's hydrate of chloral. Under the second head he introduced to notice the ethylates of sodium and potassium, sulphur alcohol, sulphide of ethyl, and triethylic ether. The ethylates of sodium and potassium were described as caustic alcohols, and promised to be of great service as caustics in the treatment of disease; the sulphur compounds were described in relation to their peculiar action on the muscular system; and triethylic ether was shown as a new and most promising general anæsthetic. In the third division of the report, Dr. Richardson discussed the direct effect of some agents on the nervous system and their direct influence as extending immediately to the heart; the relation of consciousness to sensibility of pain; and the modification of physiological action of certain organic tissues by changes of the elementary composition of representatives of the tissues.

Dr. Turnbull said that he had listened with great interest to the report by Dr. Richardson of his valuable researches. He felt sure that such experimental researches would lead to useful results; and there were two ways in which they might be expected to do this by throwing light on the *modus operandi* of the remedies in the hands of Medical men. As an example, he referred to the remarkable discovery by Professor Crum-Brown and Dr. Fraser of the fact that, by altering the constitution of strychnia, a nitryle base, and converting it into iodide of methyl-strychnium, an ammonium base, its properties were completely changed. Such experimental researches would also lead to the discovery of new and valuable remedies—for there were a vast number of new organic compounds which must have useful properties; and as example of this, he pointed to the hydrate of chloral, the useful properties of which had been recently discovered, and referred to by Dr. Richardson; and, as a practical Physician, he confirmed all that had been said by him as to its great value, and he believed that it was the most valuable remedy that had for a long period been added to those in the hands of Medical men. He believed that he (Dr. Turnbull) was the first individual who had made any experimental researches into the compounds of the organic radicles of the methyl series; and in 1854 he had read to the meeting of this Association a paper, in which he described the properties of two of the compounds of methyl, four of ethyl, and two of amyl. He had shown that when the iodide of methyl, or the iodide of ethyl, were administered, either by the mouth or by inhalation, the action of the iodine was directed energetically on the mouth and gums. He had shown that the bromide of ethyl was a safe anæsthetic, and had corrected the statement at first made by Mr. Nunneley as to its poisonous action, and had shown that this had arisen from impurity. In regard to the cyanide of ethyl, he had shown that this compound was one of the most potent of all volatile poisons. Time being limited for discussion, he expressed the opinion that amongst the vast number of new organic compounds there were many which must have useful medicinal properties, and he had great satisfaction in knowing that these researches were in the hands of so able an investigator as Dr. Richardson, and that he had stated his willingness to continue these experimental researches.

Professor Humphry and Mr. Brudenell Carter also took part in the discussion, the speakers all joining on the importance to Medical science of this line of research, promoted by the Association through these reports.

ESSAYS AND PAPERS.

In noticing those essays and papers which promise to prove of most interest to the Medical Profession, I shall arrange them in alphabetical order following the names of the authors, as in previous years.

Spencer Cobbold, M.D., F.R.S.

This industrious and earnest scientific scholar contributed four papers to the Association during the present sittings. They were all of interest to Medical men, but the one of which the following is an abstract created most attention:—

On some of the more important facts of Succession in Relation to any Theory of Continuity.

Dr. Cobbold said that for several years past the Biological Section of the Association had permitted, if it had not actually encouraged, the reading and discussion of papers having for their object the popularising (or it might be the unpopularising) of the theory of natural selection. To many, beside himself, the separate papers, and the remarks which their reading elicited, had proved eminently unsatisfactory. This might have arisen, not so much from any want of ability on the part of the authors of the several communications, as from the unscientific method adopted by the writers. The discussion following the reading of the Rev. F. O. Morris's paper on "The Difficulties of Darwinism," at Norwich, was lamentable in the extreme; for, so far as he could gather, not one of those who sympathised with the rev. gentleman's position had the courage to advance a single fact in favour of the view which his "difficulties" were intended to support. It was true one or two awkward questions were asked by local associates present; but, strictly speaking, there was no discussion. At Exeter, Mr. Morris renewed his exposition, but a much more vigorous effort in the same direction was made by the Rev. Archdeacon Freeman. How severe a criticism followed those final literary attempts in favour of anti-evolutionism could only be fully realised by those who were actually present; but perhaps it was sufficient to remark that the general conclusion arrived at by our scientific authorities was significantly expressed in the statement which he heard more than once made, to the effect that "neither of the papers ought to have been read." For his part, he thought it advisable that the utmost freedom should be allowed to all desirous of opposing this or that theory; yet, at the same time, it should be thoroughly well understood that the Sectional Committee deprecated the employment of quotations from the Scriptures calculated to excite religious prejudice. A purely scientific question could only be satisfactorily discussed on a scientific basis, unless, indeed, it was insisted that theological speculations were inseparable from the domain of science. At all events, admitting points of contact to exist, it was found desirable in practice to avoid as much as possible the importation of matters foreign to the subject under discussion. Dr. Cobbold then went on to state his conviction that any effort made to show the value or groundlessness of a theory, as the case might be, by those whose avocations were ordinarily out of the domain of science, must of necessity fail to accomplish its legitimate result if the contributor, in place of seeking to throw light on the value and relation of well-ascertained facts, chiefly occupied the time by the enunciation of preconceived opinions and exploded views, based on the popular teachings of an expiring age. Not alone to the Rev. F. O. Morris, but to the mass of so-called educated mankind, the acceptance of the views set forth by Mr. Darwin in his work "On the Origin of Species" must of course present a variety of difficulties; and it had ever appeared to him that the best and truest way of showing an intelligent sympathy with those who were so situated was to select and present some natural group of observed facts in such a clear and, if possible, attractive light that common sense alone might be safely trusted to recognise the reasonableness or otherwise of honestly asserted deductions. Doubtless there were those whose training and associations were such that they could not readily approach the subject from so simple a stand-point as that; but, in his judgment, the higher metaphysical attitude which some had advocated was not only, for obvious reasons, unsuitable on occasions of that kind, but was apt to chill the sympathies of a public who, whatever their deficiencies and delusions, at least knew how to appreciate the urbanity of the leaders in science. The facts he had selected for exposition were such as represented what might be termed the apparent chronology of the organic series, or, in other words, the ascertained times of the coming and flourishing of the larger animal groups. He observed that a true conception of what was, or rather ought to be, understood by the expression "equiva-

lencies"—be it botanical, zoological, or geological—lay at the very basis of a correct application of the significance of the records of animal, vegetable, and sedimentary rock distribution throughout all time. Further, he ventured to assert that the grandeur of the formative scheme of Nature, whether testifying to an evolutionary method of production, or to a series of creative acts, few or many in number, could only be adequately realised by the naturalist whose powers of allocation and grouping, enlarged by field-work, enabled him to grasp the magnitude and infinite import of those relations. After stating that the subject of equivalency was one that he had insisted upon for years past, Dr. Cobbold proceeded to deal with the groups of succession, and, in the course of his remarks, he said the earliest organism as regarded time which geology had revealed was the fossil called cozoon, which belonged to the the lowermost division of the animal series. It was not asserted, of course, that it was the earliest formed organic being; indeed, its complex structure would alone imply that many other allied and less highly organised beings had preceded it; nevertheless, it was extremely probable that all the presumedly antecedent forms belonged to the same great divisional category. He then proceeded to describe the succession of the various known groups, and, glancing at the times of origin and succession of the placental mammals, said the first thing that the record suggested was the rapidity with which the most divergent groups made their appearance. Of course, there was no real basis for an assumption of a coeval creation, so to speak. It might be fairly held on zoological grounds that we ought not to separate man and monkeys, but retain them as one of the twelve under the ordinal title of *primates*. He adopted the division of the placentals into twelve groups, not from any rigid belief as to their separate equivalencies, but because they were not only sufficiently distinctive for all practical purposes, but they also formed, on the whole, perhaps, the finest expression of grouping which science could at present afford. Dr. Cobbold, after treating at great length upon the succession of the varied groups, said he should have been glad to have entered a little more closely into the facts of mammalia succession, for amongst certain groups there did appear to be ground for asserting that Palæontological science had already succeeded, to some extent, in discovering the missing links necessary to complete the chain of successional evidence. As regarded the highest of all the placental series, he would only say that, as he understood the doctrine, the strictest demands of the developmental theory did not require, as was too commonly supposed, a lineal descent, as between bimana and quadrumana; but it was certainly held that either of these groups, as we now knew them, might have been separately evolved from more generalised primatal types, the intermediary terms being possibly connected by a long antecedent and far more generalised common pregenitor. In that connexion the most advanced evolutionist must candidly own that the assumedly missing tertiary primatals constituted a great and natural bar to the complete and popular acceptance of the theory of descent by natural selection. On the other hand, the scientific naturalist, whilst admitting these serious deficiencies, threw into the opposite scale a multitude of considerations, the collective value of which seemed to him to outweigh all the data thrown into the anti-continuity side of the balance. For himself, in conclusion, he said that even his necessarily limited appreciation of those data was amply sufficient to enforce upon him a provisional acceptance of any theory of continuity. To his mind its clear application (as a principle) over minor territories of knowledge—however diverse their individual characters as such might be—irresistibly implied that nature, to use an old phrase, was but a series of harmonies—wheel within wheel, there being probably but one wheel differing only from all the wheels—of whose limits it was not possible for them to conceive. However, in the contemplation of the phenomena presented to them within that wheel, with this unlimited area, or this realm of orderly mystery, as the President had somewhere called it, there was ample room and verge enough for the display of the highest psychological attributes with which man was endowed. But, as a practical conclusion, let him add that for any people as a people to enjoy the full significance and value of this knowledge, one must needs demand for them a very much higher order of education than was at present in vogue even in favoured quarters. To any reflecting mind it must be clear that by such an intervention alone, on the part of the "powers that be," could we, as a nation, cast off the mere grave-clothes of ignorance and a still too widely abounding fanaticism. Dr. Cobbold also read short papers, entitled—*Remarks on the Heart of a Chinese Dog, containing Hæmatozoa.—Notice respecting the Embryonal Development of the Hæmatozoon Bilharzia—On a Rare and Remarkable Parasite from the Collection of the Rev. W. Dallinger.*

GILBERT W. CHILD, M.D., F.L.S.

On Protoplasm and the Germ Theories.

Dr. Child explained, in opening this paper, that he wished to be as little controversial as possible; therefore he would merely lay before them certain propositions in regard to protoplasm, not as being absolutely out of the reach of controversy, but simply as defining what he meant by it. Protoplasm was, as a rule, a more or less viscous fluid, consisting mainly of four elements—oxygen, hydrogen, carbon, and nitrogen—such as constitued the living portion of every organism, animal or vegetable. We were unable by any process to discriminate between the protoplasm of the lowest plants and that of the highest animal; but, as a matter of fact, the protoplasm of one kind of organism so far differed from another as to conform to peculiarities of type. The earliest discoverable state of every organism was that of a simple minute mass of protoplasm; and beyond this stage many organisms never progressed. Vegetable organisms were capable of assimilating to their protoplasm certain inorganic compounds, but the animal world had to find its nutriment ready made in the vegetable kingdom. After an examination of the various germ theories which had been put forward, it appeared to him that abiogenesis in some form or another was a necessary consequence of certain other theories which were gaining ground at the present moment. It was hardly conceivable that we could theoretically hold the original simple forms, from which the whole animal and vegetable world had been developed, had sprung into existence out of the regular order of the evolution of the universe. What was called the germ theory of disease threw an interesting light on the question. Zymotic diseases were now generally believed to result from the multiplication and reproduction of germs in the blood of the man or animal affected. The matter to be accounted for was how the germ diseases appeared, disappeared, and afterwards again cropped up in the same district and at great intervals of time. If the old theories were to be maintained in their entirety as to the fixity of species, every one of these diseases must have existed somewhere from the beginning.

Following upon Dr. Child's paper was one by Mr. JAMES SAMUELSON on *Spontaneous Generation*, and, as in the discussion both papers were considered, I will give the abstract of Mr. Samuelson's very able essay in this place.

The Controversy on Spontaneous Generation.

Mr. Samuelson first discussed the present position of the controversy on heterogenesis, or the supposed creation of the lowest forms of plants and animals *de novo*. He first referred to the theological bearing of the subject, which he believed to be overrated, inasmuch as it could make but little difference "whether the first appearance of the lowest types of animal and plant life is due to the direct action of the physical forces on matter which has once been organised, and is undergoing decomposition, or to the same forces, or some modification of them, acting in the first instance in or upon almost inconceivably minute pre-existing germs." But the author expressed his opinion, resulting from experiments and observations which extended over a long series of years, that those who prefer to adopt the theory of the creation of living forms only from germs already in existence would eventually find their view to be correct. He then proceeded to consider the recent experiments of Dr. Bastian, who believes that he has not only been able to create "protoplasm" by the combination of inorganic materials, as it was hinted possible some years since by Professor Huxley, but that under his hands there had been spontaneously produced from inorganic materials, combined in a manner circumstantially described by him, "truly organised plants and small ciliated infusoria." The author first criticised the terms in which Dr. Bastian had described the results of his experiments, characterising them as vague, and giving instances of this vagueness. Then he showed how some of them were absolutely adverse to his own (Dr. Bastian's) hypothesis; and finally he proceeded to describe at length a number of experiments of his own made in June, July, and August last, and to compare them with notes of a series of experiments tried by him in 1863, which left little doubt on his mind that the plant types (mildew or mould), believed by Dr. Bastian to have been spontaneously produced in infusions, really spring from atmospheric germs, which, in some instances, become developed in the open air upon bare rocks and stones, but which the author showed to be present in rain water fallen from the clouds, and in distilled water exposed to the air. The

result of his experiments may be thus briefly epitomised:—In 1863 the author found the same plant types—various stages of mildew—in infusions of orange juice, cabbage juice, and pure distilled water exposed to the air; and during the past summer he again found the identical types in infusion of orange juice, and in water caught in a shower of rain. At both periods, too, he found lowly animal types in the atmosphere. He concluded his paper as follows:—"Here I leave to the judgment of men of science the results of my experiments, which any boy possessed of a microscope may repeat as effectually as I have performed them. And if the believers in spontaneous generation still insist that their hypothesis has not been refuted, and that, assuming my observations to be correct, their view of the case has not been fully disproved, I am not prepared to deny this; but, on the other hand, I must be permitted to retort that their experiments have only proved, so far, their inability, notwithstanding all their precautions, to exclude invisible germs from their infusions. As to the mysterious appearance of these microscopical types on their solutions *in vacuo*, what is it compared with the presence of some of the internal parasites of man and the lower animals? And who would have credited twenty years since the story of the wanderings and metamorphoses which those forms undergo before they find their way into the final habitat designed for them by nature? There is, however, very little chance of the controversy coming to an end at present. It is fascinating and sensational, and so far quite in accordance with the spirit of the age. Nor is it desirable that it should cease, for it is causing microscopical observers to direct their attention more and more to the beginnings of life, and to the development of those living types which are visible only with the aid of the lens. I know of no subject more worthy of the consideration of biologists."

Dr. Crace Calvert.

On Putrefaction and Fermentation.

Dr. Calvert, referring to the two papers named above, offered a short communication on fermentation and putrefaction. He detailed some experiments he had made, and alluded to others on which he had been engaged for the last twelve months, and which were likely to take him another twelve months to perfect. His endeavour was to take air from the breath of patients suffering from typhoid and scarlet fever and small-pox, to examine the air, and see what kind of microscopic life such breath conveyed. The first part of his experiments had led already to some interesting results, and they entirely proved the truth of Dr. Tyndall's and Mr. Samuelson's statements. He had already established the possibility of preserving air from microscopic life for seventeen days; and by the new plan he was pursuing he would be able to show that germs might be excluded for twelve months. He stated the facts demonstrating that the atmosphere contained germs of putrefaction, and that the rapidity of the development of the germs depended on the nature of the pabulum with which they came in contact. So that these phenomena, though appearing at first sight to have a similarity, differed greatly in their mode of reproduction. He (Dr. Calvert) hoped to be able to lay the result of his experiments before the meeting next year; and if he should be so successful as to announce the fact that there was a destruction of the vital life from the breath of fever patients or those suffering from small-pox, he was conscious that he would have conferred on society a great boon. (Applause.) After alluding to the difficulties which attended the investigation, Dr. Calvert said the microscope which he used magnified sixteen hundred times, and it required the highest power to be able to follow that microscopic life. There were little cells which could not be seen at all except by the most careful attention and by practice, the rapidity with which those cells moved making it barely possible to follow them. He had never seen that class of cells, except in connexion with putrefaction.

Mr. Bentham, President of the Linnæan Society, pointed out that there were two essential conditions to be observed by experimental biologists—the first was accurate experiments, and the second, reasoning upon them on the analogy of what they saw in other departments of biology. He thought that the experiments as to the existence or non-existence of germs could not be taken as conclusive, but must depend altogether upon circumstantial evidence. The germs which floated in the air could not be seen by any microscope, and therefore their presence or absence must be deduced from other circumstances. After saying that experiments could not be relied upon unless they were thoughtfully studied, Mr. Bentham said that from all he had heard he should be inclined to put great confidence in the experiments made by Mr. Samuelson. At one time abiogenesis was supposed to exist wherever there was corruption, but that theory was no longer believed in. There was no case in which animals in their early state were visible to the microscope where it had not been proved that they had been derived from living animals; and the papers they had listened to that day went far to prove that, reasoning by analogy, there was no ground at all, at present, for supposing that abiogenesis existed.

Dr. Hooker said there was very little the poor botanist could do to throw evidence on the question brought forward, and that was a question of likings. The botanist had to look at it in another aspect—primarily concerning himself with the condition, development, and future of the organisms brought before him. As far as these observations went, they did not yet know what many of those bodies were. It was a good many years since he attended to the subject. He then made a careful study of some of the bodies which appeared in the early infusions. Latterly, it was his singular misfortune to follow many of the experiments their President had made on the subject of those infusions. It struck him that all along they had known three or four different sects and classes of bodies which appeared in those infusions which had little to do with one another, and the course of their development they heard very little at all about, while in respect to others they knew nothing at all.

Dr. Braidwood said that he and Mr. Samuelson had been carrying on the same experiments upon vaccine for the past twelve months, although perfectly unknown to each other, yet they appeared to have arrived at the same results. (Hear, hear.)

Dr. Child could not doubt that the organisms spoken of by Mr. Samuelson were produced by germs. He thought they had learnt two or three things that day, and among others this, that undoubtedly if any form of abiogenesis could be shown to exist at the present time, it was merely the production of those perfectly undefined and minute masses of protoplasm which might or might not be produced spontaneously; at any rate, beyond that nothing was known at the present moment, nor was it believed that anything more than that could be produced. He thought the researches of Mr. Samuelson should induce them to investigate this matter very much more closely than they had hitherto done; and the meeting, he felt sure, would agree that the paper contributed by that gentleman pointed out in a great measure the directions which those investigations should take. He thought, further, that the remarks from Dr. Hooker went to the same point; and he could not but think that all microscopic experiments of the lower forms of known vegetation would bring them to some new conclusions in regard to the nature and character of those minute masses of protoplasm.

Campbell, J. C., Esq.

The Tobacco Trade of Liverpool.

A paper, by Mr. Wilkinson, on tobacco, and one on the same subject by Mr. Campbell, gave rise to a warm discussion, in which Professor Huxley took part. Mr. Wilkinson, who is a staunch opponent of tobacco, repeated all that has been said respecting the evils of the practice. Mr. Campbell dealt with the question of the consumption of the weed in Liverpool. He stated that the tobacco warehouse of Liverpool was calculated to contain 20,000 hogsheads, and that it sometimes contained a larger number. The stock in the warehouse on January 1, 1869, was 20,210 hogsheads, and the total stock of American in the United Kingdom was 40,225 hogsheads; so that Liverpool at that date held fully one-half of the stock of American tobacco in the three kingdoms. The Liverpool tobacco trade was now in the hands of eight brokers and seventy importers; and the duty paid in 1869 was 948,660*l.*, or a seventh of the revenue derivable from tobacco in the whole of the United Kingdom. Liverpool also contained the most extensive cigar factory in the kingdom (Messrs. Cope's), in which 1000 girls were regularly employed, and the position of those girls would compare most favourably with that of females employed in any other occupation. (Hear.) They earned from 10s. to 16s. a week, their morals were unimpeachable, and their employment, together with being profitable, was healthy and comfortable.

Mr. George Hurst doubted that the use of tobacco shortened life; on the contrary, he thought that in many instances it tended to prolong life.

Dr. Stuart thought that smoking was injurious to health and morals; and that tobacco and intemperance were the great evils of the day. (Hear, hear.)

The Rev. Dr. Willis and Mr. Botley also disapproved of the use of tobacco; while Mr. Robert Dawbarn was in favour of moderate smoking.

Professor Huxley said that on the particular question of tobacco, he regretted to state that he was in the most awkward position imaginable. For forty years of his life tobacco was a deadly poison to him. He was brought up a Medical student, and Medical students were not averse to tobacco. Therefore, he had every temptation to acquire the habit of smoking, and many were the attempts he made, but they always resulted, after half-a-dozen puffs, in his finding himself on the floor of the room in which he chanced to be. From having been a Medical student, he became an officer in the navy—and they knew that sailors were not averse to tobacco. He must confess that many a day, after a cruise under a hot sun, he had looked with the most complete envy upon his brother officers, who were stretched in what comfortable positions they could find, seeming to derive from the pipe a solace such as could only be derived from the highest sources of pleasure. But he could not enjoy that pleasure at the time; and he need not tell his hearers that, under those circumstances, he was then the most inveterate tobacco hater in the world. In fact, if it had not been for the tolerant ideas he had imbibed in his youth, he did not know if he would not at the time have supported any institution that had for its object the putting to death of tobacco smokers. However, some three or four years ago he was making a tour in Brittany with some friends, and after entering an inn his friends commenced to smoke. They tempted him to a cigar, and they looked so happy, and it was so miserable and uncomfortable outside, that he tried if a cigar would make a changed man of him; and he found that he was a changed man. He found that he was in the position of a lamentable pervert; and, though he did not find from smoking that feeling of happiness which some people seemed to experience, still he felt that smoking was a comfortable and laudable practice, so far as he could discover from internal sensations. That was an illustration of the evil of bad associates, although the gentleman who led him astray was a most distinguished person, and a former President of the Association. From that day he dated his ruin; and, although he was not a constant smoker, yet whenever a smoke was going on he was pretty sure to join in it. So long as he kept within moderation in smoking, there was no more harm in it than he could discover in a cup of tea. Tobacco in moderation was a sweetener and equaliser of the temper; but the question of smoking or not smoking was like all other such questions. He did not see the use of being fanatical on either side. They might poison themselves with beef-steaks if they liked, and he did not know anything worse or more likely to destroy health than excessive smoking. So it was with the abuse of everything; and those who were unable to touch the smallest particle of tobacco had no right to abuse those who used it freely, any more than he (Professor Huxley) had a right to recur to his former state, and looked down pharisaically upon his present one.

General Survey.

I will send you for next week the completion of the reports of papers. Meanwhile, before I close this letter, let me refer to one or two general topics which have engaged the meeting.

Vivisection.

Previous to the first sitting of the General Committee, Mr. G. Johnstone Storey gave notice of the following resolution:—"That, having regard to the mixed character of the British Association, and the circumstance that the business of the General Committee is necessarily transacted under pressure of time, it is not expedient, under ordinary circumstances, that it be recommended to this Committee to appoint committees to pass votes for investigations to be carried on by the method of vivisection." At the first meeting the motion was not discussed, an arrangement being entered into that Mr. Storey should meet the Biological Section, the members of which should discuss the subject specially. As a consequence, the Committee of the Section considered the question, not only specially, but most earnestly, and a subcommittee was formed, which had an interview of more than an hour with Mr. Storey. Mr. Storey was not opposed to vivisection when necessary, but he insisted that sufficient supervision was not exercised. The Committee, on its side, held that no additional method could be carried out. The communications of the physiologists were all first submitted to the Biological Section; they were read in the Physiological Department. When a grant was suggested upon a paper, the suggestion came from the whole Committee; it was carried to the Committee of Recommendations, by whom it was again discussed; and finally it came before the General Committee. This mechanism, it was maintained, was sufficient for all purposes, and it was strongly objected that the physiologists should be put under any exceptional rule by which they would be marked as men who were allowed only to carry on their work under the burthen of what they might feel to be a degradation. It was hoped at one time that Mr. Storey, knowing the feeling of the biologists, would withdraw his resolution; but, at the General Committee on Monday, he proposed it, Professor Stokes seconding it *pro formâ*. This done, Mr. Samuelson proposed, as an amendment,—"That the Committee of Section D be requested to draw up a statement of their views upon physiological experiments in their various bearings, and that this document be circulated among the members of the Association; that the said Committee be further requested to consider from time to time whether any steps can be taken by them, or by the Association, which will tend to reduce to its minimum the suffering entailed by legitimate physiological inquiries, or any which will have the effect of employing the influence of this Association in the discouragement of experiments which are not clearly legitimate on live animals."

Professor Rolleston, in seconding the amendment, said it was in the interests of the Association and of physiologists that such a motion should be carried. He believed that wherever chloroform could possibly be used it should be employed, and that students should not be allowed to cut up animals for mere gladiatorial display or to attain dexterity, but that vivisection should only be allowed for the sake of science.

Professor Foster supported the amendment, and it was carried by a large majority.

The subject of vivisection, opened by Mr. Storey, came out more than once in the course of general debate on papers in the Sections; and Professor Cleland, on the reading of a paper by Brown-Séquard, made the ladies in the audience laugh consumedly by observing that he carried his dislike of the infliction of pain on all natures to such an extent that he even hated to see a man beating his own wife, and that he had recently been made a conspicuous character in Regent-street for interfering with a "gentleman" who was engaged in that occupation. Professor Cleland also took occasion on another debate to offer a few quiet and sensible remarks on the relative cruelties of field sports, and on the preparation of animals for daily food, as compared with what was done, for the great ultimate object of alleviation of all animal suffering, by men of science.

Mr. Bickersteth's Soirée.

On Saturday Mr. Bickersteth, as President of the Medical Institution of Liverpool, gave a grand *soirée* at the Philharmonic Hall, the invitations going out in the name of himself and Mrs. Bickersteth. We regret to say that ill-health prevented the President from taking the active superintendence which he desired; but a committee of friends, consisting of Drs. Glynn, Caton, de Zouche, and Davidson, and of Messrs. Harrison, Banks, Newton, Walker, and Dyal, made up for everything, and prepared for the visitors to Liverpool who were invited to the *fête* a reception which, in Medical life, is almost without parallel. In my remembrance—and, alas! I carry a fair remembering of over twenty years—I recall no other similar display except one given to the members of the British Medical Association by Dr. Symonds, of Clifton. Mr. Bickersteth and his friends wisely forbore making the entertainment Professional. It is true that many instruments, etc., showing improvements in Medicine, were exhibited, but the force of the display lay in exhibitions of works of art and science, of which there was a profusion that perfectly enchanted the senses. For beautiful pictures, all Liverpool must have been ransacked; for curiosities, the county might have been put under levy. One table alone, of inlaid Japanese earthenware, contributed by Mr. Bowes, was worth a journey from London to see. I need not say that the *soirée* was simply a perfect success.

Lectures to the Profession.—During the meeting two lectures have been delivered to the Medical Profession here. On Monday, Drs. Burdon Sanderson and Strieker met the members of the Profession in the theatre of the School of Medicine, and made a demonstration of the capillary circulation in warm-blooded animals. On Tuesday, in the theatre of the Medical Institution, Dr. A. T. Waters, Vice-President of the Institution, in the chair, Dr. Richardson gave a lecture "On the Phenomena of Intermittent Circulation." Both lectures were largely attended, and cordial votes of thanks were awarded to the respective lecturers.

I will send you a concluding report for your next number.

The Oswestry Cottage Infirmary has been formally opened by J. R. Ormsby Gore, Esq., M.P.

REVIEWS.

Notes of a Season at St. Moritz, in the Upper Engadine, and of a Visit to the Baths of Tarasp. By I. Burney Yeo, M.B. Lond., Assistant-Physician to King's College Hospital, and Lecturer on Animal Physiology in King's College, London. Longmans. 1870. Pp. 108.

Part of the present "notes" appeared in the columns of the *Medical Times and Gazette* last year, and attracted so much notice that our readers will think Dr. Yeo has acted judiciously in bringing them out in this enlarged and fuller form. St. Moritz, from the circumstance of its great altitude (6100 feet above the sea-level), from the Norwegian character of its vegetation, and the purity, dryness, and stillness of the air, has merits specially its own. Its waters contain about three grains of carbonate of iron in a gallon, and eighty of carbonate of lime, held in solution by abundance of carbonic acid. No doubt they are delicious and exhilarating to some persons, but, as Dr. Yeo says, "the presence of this large amount of carbonate of lime, and the absence of any appreciable quantity of saline aperient constituents, render this water ill-suited to many cases where the use of a chalybeate is indicated." These waters are used as baths also, being heated by steam, and seem to owe their virtues chiefly to the carbonic acid, which adheres to the skin, and gives somewhat of a pungent sensation. The arrangements of the bath-house are neither convenient nor wholesome.

Dr. Yeo, who appears very capable of giving a sound, unprejudiced opinion, and of holding his own, in spite of the attacks which a neutral is sure to receive from belligerents, describes the cases in which a sojourn at St. Moritz is beneficial, whether with or without drinking and bathing, but he does not hesitate to speak as positively of the harm these baths do in the wrong cases as of the good they may do in the right ones. They cause fatigue, and lower the circulation injuriously; and the transition from the steam-heated baths to the cold outer air is not safe. Moreover, the consumption of large doses of cold, indigestible water at an early hour of the day by a feeble stomach is anything but invigorating. But in the right cases, especially of "pale, lax-fibred, languid people, who commonly suffer from relaxed mucous membranes, chronic mucous discharges, and passive hæmorrhages," there is no doubt that the St. Moritz cure may be pre-eminently "recuperative." Dr. Yeo's work has the marks of independence and scholarship about it. We have chiefly noticed such portion of his remarks as apply to the residence there during summer, but for information concerning its merits and demerits as a winter residence, we must refer anyone who dreams of the experiment to the book itself. We must say the same as to the account of Tarasp, which may come into repute another day, as a haunt for the hepatically-disordered multitude, when the European war shall be over. We must not forget to add that Dr. Yeo's book contains a full account of the flora and fauna of the Engadine.

Statistical Tables of the Patients Under Treatment in St. Bartholomew's Hospital during 1869. By the Medical Registrars, Philip J. Hensley, M.D., and W. Ainslie Hollis, M.B.; and the Surgical Registrars, F. Howard Marsh, F.R.C.S., and J. Astley Bloxam, M.R.C.S.

We congratulate the authorities of this Hospital on the notable improvement in the form of their annual statistical report. The valuable information contained in the old quarto pamphlets is now furnished, together with much other important matter, in a far more convenient form for reference: the large blank pages over which the eye roved restlessly in search of the few scattered figures in former reports having given place to pages of a sensible size, giving in a few columns, arranged as in the St. George's and Middlesex Hospital Reports, the number of patients, male and female, remaining over from the previous year, and admitted in 1869, and the result in each case. A column of remarks furnishes many interesting points about the cases. All the tables are arranged according to the nomenclature of the College of Physicians, and they include, in the Medical Report, Table I., showing the total number of cases of each disease under treatment, with the results, an abstract of this table (the object of which is not very apparent, as the table itself is necessarily sufficiently concise for all useful purposes), and Table II., giving "Complete Cases of the Year, according to Diseases and Ages." A third table gives the mortality in these "complete" cases; a fourth furnishes interesting facts as to the average stay of patients in Hospital, giving the difference between the actual and the possible number of permutations during the year; and two curious diagrams close the Medical Report. It is clear that the registrars have worked hard in the production of their report, but we venture to think that certain portions of their work would have gained in clearness had a successor to Molière's "old woman" been found to point out the obscurities which in these portions puzzle ordinary intelligences. The two concluding diagrams, for instance, are to us tolerably unintelligible. The first of these is said to represent "the number of patients admitted at each age up to 70 into the Medical wards during the year 1869. The means for successive periods of five years are taken;" and the second deals in like manner with the deaths. But as all diseases are grouped together in these tables, the statistical information so lucidly conveyed can be hardly of much scientific interest. Again, in the table of "complete cases" we are puzzled to find in the list of diseases, "intemperance" and "debility and destitution." We had thought "complete" to signify "treated to the termination of the illness," but in that case one would hardly expect to meet with fourteen abdominal tumours, none of which were fatal. These trifling defects might, however, be easily remedied by a few explanatory remarks in the preface. We have drawn attention to them only because it seems a pity that so much good work should run the risk of being misunderstood.

The Surgical report opens with an exceedingly elaborate and carefully prepared general table of cases under treatment, occupying twenty-one pages, and abounding in information as to operations and mortality. We are, however, surprised to find amongst these Surgical diseases the familiar Medical terms "febricula," "pneumonia," "acute rheumatism," "mitral disease," "jaundice," and the like, as they are not stated to have been transferred to or from the Physicians. Here, too, the mystery of the "complete" cases furnishes another long table.

The remaining tables of fractures, operations, erysipelas, and pyæmia, and causes of death, bear abundant witness to the laborious painstaking of the Surgical Registrars, and will prove of much service to all who are interested in the results of accurate statistical observations. Indeed, as aids to the advancement of the application of statistical science to practical Medicine and Surgery, such reports as these of St. Bartholomew's Hospital cannot be over-valued, and we are only sorry that so much tedious work should be appreciated by so few, and—we may be permitted to add—that these few should be somewhat discouraged in their researches by any want of clearness in the arrangement and designation of the tables.

GENERAL CORRESPONDENCE.

THE CONTAGIOUS DISEASES ACTS.

Letter from Dr. H. W. Rumsey.

[To the Editor of the Medical Times and Gazette.]

Sir,—A letter from Professor Newman, in your last number, demands from me some notice, although I had nearly determined not to be led into any defence of the remarks which I thought it right to make at Newcastle on the controversy respecting the Contagious Diseases Acts.

The point which that gentleman has established is that he did not make the original statement "in the public prints." I am therefore ready at once to withdraw those four words, and to express, thus publicly, my regret that they should have been used, owing to my misunderstanding a sentence in the last report (p. 39) of the Association for promoting these Acts. When those words are omitted, the passage will read thus:—"Professor Newman, who took a leading part in the first turbulent attack upon these Acts, at the Bristol Congress of the Social Science Association, afterwards narrated a horrible story, for which, when pressed, he was unable to give the slightest authority, and which turned out to be a pure fabrication. Yet for this he made no apology." Mr. Newman is quite welcome to any benefit which this correction may give him. The remainder of the sentence is corroborated by a correspondence published in the appendix to the aforesaid report (pp. 71-3). I beg the favour of your reprinting these letters, in order that your readers may judge for themselves as to the truth or falsehood of the disgusting, yet absurd, story, in which Mr. Newman has again, unfortunately for himself, expressed his belief.

Correspondence relating to an Alleged Instance of Tyrannous Administration of the Acts.

To the Editors of the Western Daily Press, March 16, 1870.

Gentlemen,—On February 4 I received a letter from Professor Francis W. Newman containing the following passage:—"I have lately received an account, written by an eye-witness, of an 'inspection' at Plymouth. Various details are too foul to copy. Here is a summary. A woman resisting, sobbing, swearing, and writhing. The Surgeon crimson with effort to overpower her. A crowd of women expecting their turn—pale, or weeping, or grinding their teeth with oaths."

As this statement reflected most seriously upon the authority charged with carrying out the Contagious Diseases Act in the Plymouth district, I forwarded the above extract to the Secretary of the Admiralty, to the Under-Secretary for War, and to Mr. Thomas Woollcombe, Chairman of the Managing Committee of the Royal Albert Hospital, Devonport (the only Hospital which receives patients under the Contagious Diseases Act in the Plymouth district). I also applied to Professor Newman for the names of the eye-witness and the examining Surgeon, and for the date of the inspection at which the alleged gross misconduct took place.

On February 10 Mr. Newman replied to my request by declining to furnish me with the information I asked, without, however, giving any reason for this refusal.

On February 18 I received answers from the Secretary to the Admiralty and from Mr. Woollcombe, of which I forwarded copies to Professor Newman on February 21, enclosed in a note, of which the subjoined is a copy, but I have received no reply.

As doubtless this fabrication has reached others as well as Professor Newman, you will remove a painful impression from the minds of many persons by inserting these letters, and by doing so you will much oblige,

March 2, 1870. Yours faithfully, Berkeley Hill.

(No. 1.)

14, Weymouth-street, London, W., February 21, 1870.

Sir,—I send you copies of two letters I received from the Secretary to the Admiralty and from the Chairman of the Committee of the Royal Albert Hospital, Devonport. I venture to hope that you will (after reading them) withdraw the statement you made to me in your letter of February 4.

I am, sir, faithfully yours,

Professor Newman. Berkeley Hill.

(No. 2.)

Admiralty, February 18, 1870.

Sir,—With reference to your communication of the 5th inst., relative to a statement furnished to you by Mr. Francis Newman, as coming from an anonymous person, alleged by him to have been an eye-witness of the examination of some women at Plymouth, I am commanded by my Lords Commissioners of the Admiralty to acquaint you that they have made full inquiry, and have received most positive assurance from both the former and the present visiting Surgeon at Devonport that nothing of the kind mentioned by Mr. Newman ever took place.

I am, sir, yours obediently,

Berkeley Hill, Esq. Vernon Lushington.

(No. 3.)

Royal Albert Hospital, Devonport, February 17, 1870.

Dear Sir,—I am requested by the Managing Committee of this Hospital, into which patients under the Contagious Diseases Act are received after the examinations directed by the Act, to inform you that the most searching inquiry has been made into the alleged grossly improper treatment of women by the visiting Surgeon of the district, purporting to have been attested by an "eye-witness."

The committee being perfectly satisfied that the scene described, or any similar one, never did take place, and, from the precautions taken to prevent abuse, never could take place, desire me to give unqualified denial to the truth of the statement, and to express their regret that the gentleman who has given currency to the slander declines to do the common justice of giving up his authority.

You will make such use of this letter as you think best, and believe me,

Yours truly,

Thomas Woollcombe, Chairman of the Managing

Berkeley Hill, Esq. Committee, Royal Albert Hospital.

Now that I am writing, I may refer briefly to a violent attack made upon me, in a previous number of your journal, by Mr. Worth, who is, very naturally, displeased at my exposure of the dishonesty of the attempts of the repeal party "to make people believe that the English regulations are identical with the French." And he endeavours to show that there is here an "authorised registration of prostitutes as in France." But the register to which he refers is merely the private list, which must of course be kept by those superior and carefully-selected members of the police force to whom the duty of carrying out the Act is entrusted, and who act under the strictest supervision. The statute, as Mr. Worth ought to know, does not direct registration, nor is the police register a public document.

He ought also to know that the Act of 1869 repeals the provision of the Act of 1866, which handed over the certificate of cure to the woman, but which, like the rest of his party, he quoted as though it were the existing law! It is really useless to argue with such people. If they could prove only a tenth part of their wild assertions before the Government Commission, the Act and its administration might be discredited. Otherwise, it will remain in force for the benefit of the army and navy, and indirectly for that of the whole population, women and children included. The greatest danger to the Acts arises, not from the rhodomontade of the "strong-minded women and weak-minded men," of whom our President at Newcastle so well spoke, but from the secretly organised opposition of those wretches who live upon the gains of the miserable women, for whose cure and reformation these laws are in operation. It would be well if half the zeal displayed in the cause of prostitutes could be directed to measures for the protection of virtuous women and innocent little girls from violation. I am, &c. H. W. Rumsey.

Cheltenham, September 19, 1870.

THE EFFECT OF MUSCULAR ACTION IN CAUSING FRACTURED RIBS.

Letter from Mr. Metcalfe Johnson.

[To the Editor of the Medical Times and Gazette.]

Sir,—There is one point in the fractured ribs controversy which I think has not received that attention which it merits, namely, the relation of the fracture to the muscular efforts of the patients themselves. Any one who has watched the actions of violent lunatics will be aware how great are the requirements of the various muscles which hold the chest in its fixed position necessary to the superhuman efforts that are often made, in either struggling with the persons who are required to restrain them, or even to free themselves from the restraints of the straight-jacket, which in many cases is necessary to convey them to the asylum or place of confinement. It is, of course, recognised that most of the fractures of long bones in ordinary accidents to healthy persons are produced, not by the direct blow upon the shaft of the bone, but by the action of the muscles of the injured person in the attempt to save himself. This is well shown in the harmless result of severe falls to insensibly drunken persons, who often sustain a fall or blow without injury, which, to a sober person, would inevitably produce a fracture.

When we consider the action of the levatores costarum, serratus posticus superior, serratus magnus, and pectoralis minor, as opposed to the sacro lumbalis, accessorius, longissimus dorsi, and serratus posticus inferior, assisted by the intercostals and the abdominal recti and obliqui; and when we contemplate the sudden jerks that will be given by a person acting under insane muscular effort to these organs, it will not seem strange that in the case of fragile ribs, from either deficiency of saline or cartilaginous matter of the bones, such violent action should end in fracture. The position, therefore, of the fracture, as well as its direction (whether transverse or oblique) in relation to the muscular insertions, is a point of considerable interest, and in a Medico-legal point of view may materially affect the safety if not the lives of attendants.

The amount of earthy and organic matter in the ribs in relation to a standard of health, is a subject that should form a question for the Medical jurist in all cases of fractured ribs in the insane; for although the deviation from the healthy state may not be sufficiently marked to be diagnosed by ocular or tactile examination, yet a chemical examination would show us whether this tendency to *fragilitas ossium* existed. In the cause of Medico-legal justice, I shall trust to your courtesy to allow me space in your Journal for these few remarks.

I am, &c. Metcalfe Johnson, M.R.C.S.E.

Lancaster, September 3.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 14, 1870.

Dr. Burrows, F.R.S., President, in the chair.

Mr. Henry Lee read a paper

ON THE REMOVAL OF SUBCUTANEOUS TUMOURS WITHOUT HÆMORRHAGE OR LOSS OF SKIN.

The author has been in the habit for some time of removing small tumours by indiarubber thread. He finds that the pressure of the thread will rapidly, by a process of linear mortification or of ulceration, cut through the base of a tumour. This principle may be applied to the surface as well as to the base of any growth that may have to be removed, and is peculiarly applicable to vascular tumours of the neck and face. A crucial line of ulceration is first made through the skin by the continued pressure of indiarubber bands or thread. Needles are then inserted below the flaps of skin thus produced, and the skin is dissected back, from the centre towards the circumference, by the pressure of the india rubber. The base of the tumour is then cut away in the same way, so that the whole of

it is enucleated without the aid of a knife. The process goes on much more rapidly than might be expected; and it is comparatively safe, as the indiarubber thread always, on account of its elasticity, remains tight. The circulation cannot consequently be re-established in a part once strangulated, and so far the danger of blood-poisoning is avoided.

A paper by Dr. Edward Meryon was read

ON THE FUNCTIONS OF THE SYMPATHETIC SYSTEM OF NERVES.

The author commences by showing that every sympathetic ganglion, in all animals, is connected with three forms of nerve-fibres—namely, motor, sensory, and sympathetic proper, or the fibres of Remak. That on entering a ganglion these several forms of nerves separate into their component fibres, and unite with the ganglionic caudate cells. That each ganglion thus becomes a nervous centre in its own sphere, receiving, transmitting, originating, and reflecting impressions, on which the functions and nutrition of organs depend. Experiments and observations are next adduced to prove that the sympathetic has little or nothing to do with the motions of the iris; but that these actions depend upon the third cerebral nerve, and the fibres proceeding from the regio cilio-spinalis of Wagner and Ruiter. Dr. Meryon then enters into the inquiry relative to the special function of each different form of nerve-fibre respectively, which goes to or proceeds from every ganglionic centre; and from many experiments and cases, he shows that the motor fibres which proceed from each ganglion, having their terminal fibres extending to the most minute arterioles, give an impetus to the blood-current, and are subservient to the functions of the secretory tissues. That the sensory fibres communicate an organic or vital sense to the secretory glandular tissues, just as the muscular sense is conferred on, and conveyed from, the muscles to the nervous centres, to communicate a stimulus to muscular action; that, in fact, the sensitive nerves affect the histological tissues, without operating immediately upon the bloodvessels. Finally, that the fibres of Remak—or the sympathetic fibres proper—having a correlative ramification with the motor fibres, regulate the stream of nutriment which is conveyed by the arterioles into the cell-territory for secretion and nutrition. This latter function is effected by the restraining or inhibitory attribute of the fibres of Remak. On these views Dr. Meryon proposes in a future paper, to suggest a system of rational therapeutics, founded upon the properties which many medicines are known to possess, of inducing through the influence of the vaso-motor nerves the contraction or dilatation of bloodvessels.

At the conclusion of the meeting,

Mr. Spencer Watson exhibited a new ophthalmoscope, with which the fundus oculi could be examined by direct daylight in favourable cases and under favourable circumstances, but which would be more especially useful for examination of the retina in a room which was only partially darkened. It would also be very useful as an instrument to be employed by Medical men at a distance from home. The mirror employed was concave, with a focal length of 15 in. and a diameter of $3\frac{1}{2}$ in.; being, in fact, the laryngoscopic mirror.

Mr. Brudenell Carter also exhibited a new form of Demonstrating Ophthalmoscope, invented by Dr. Wecker of Paris.

Tuesday, June 28.

Dr. Burrows, F.R.S., President, in the chair.

Mr. T. Holmes read a paper by Mr. Edward Barker on

A CASE OF EXTROVERSION OF THE BLADDER IN A FEMALE, TREATED BY OPERATION.

This paper recorded the cure, by operation, of a case of congenital exposure of the bladder in an adult female. The proceeding adopted consisted in denuding the opposite margins of the opening, and bringing the parts together with deep metallic sutures and superficial horsehair sutures. Incisions were made to relieve tension. After three operations the deformity was cured, and the patient able to retain her urine, when lying down, for two hours.

Mr. Holmes said the paper was of interest, as the condition was very rare. A similar case had been successfully treated many years ago in America. The proceeding was more simple in the female.

Dr. C. Hilton Fagge read a paper

ON THE ANATOMY OF A CASE OF MOLLUSCUM FIBROSUM.

This paper is based on the results of the dissection of portions of the integument of a woman, aged 40, affected with molluscum fibrosum, who died in Guy's Hospital of another disease. The author examined some of the most minute tumours—scarcely bigger than pins' heads—by dissecting them out of the cutis, and submitting them to a low power of the microscope. An independent examination of some of the larger growths was made by his colleague, Mr. H. S. House. These were hardened in chromic acid, and fine sections of them were viewed with higher objectives. The conclusions arrived at by the author and Mr. House are as follows:—1. That each tumour is originally developed round a hair-follicle, enclosing at the same time the sebaceous glands belonging to the follicle. 2. That the smallest tumours consist of two distinct elements—a central glandular body, itself surrounding a hair; and a peripheral mass of very fine connective tissue, containing numerous minute oval nuclei. 3. That the glandular body is a sebaceous gland, enlarged by the separation of its sacculi from one another, and perhaps also by the actual multiplication and increase in size of the sacculi themselves. 4. That the peripheral mass of nucleated connective tissue is developed from the two external layers of the dermal coat of the hair-follicle, and sebaceous glands. The structure of one of the smallest tumours is shown in the microscopical drawing which accompanies the paper. The centre of the tumour may be seen to be occupied by a hair, surrounded by a beautifully branching glandular body, itself enclosed in a translucent fibrous mass. A coloured drawing illustrates the appearance of the under surface of a portion of integument affected with molluscum, when it has been dissected so as to expose the numerous soft red tumours scattered throughout its substance. The latter part of the paper is devoted to an examination of the literature of molluscum, and of the views propounded by previous writers. It is shown that the only observations irreconcileable with the author's are those published in the year 1858 by Förster. In conclusion it is maintained that the author's investigations render the name "molluscum fibrosum" a more appropriate one for the disease under consideration than that of "fibroma molluscum" used by Virchow and other German writers.

REPORT OF THE COMMITTEE APPOINTED BY THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY TO INVESTIGATE BAIN'S AND PACINI'S METHOD OF RESTORING SUSPENDED ANIMATION.

Members of the Committee.—Mr. Savory (Chairman); Dr. Burdon Sanderson; Mr. Henry Power; Mr. T. P. Pick (Secretary); Mr. Gascoyen (*ex officio*).

The means adopted by the committee for pursuing the inquiry were by experiment upon the dead human body; and, in order to test the relative merits of the methods proposed, they were contrasted with the plan adopted by Dr. Silvester. Details of a large number of observations are given in the report. The conclusions at which the committee arrived from these observations may be summed up as follows:—That it appears that more air is introduced, as a rule, by traction from the shoulders than from the forearms and arms. Nevertheless, it will be seen that in the amount of air introduced, there is a greater difference when the same method is adopted with different bodies than there is between the two plans when practised upon the same body; this great difference being chiefly due to the size of the body, especially the amount of fat, the mobility of the walls of the chest, and the rigidity of the muscles. By either plan the committee are of opinion that a sufficiently large quantity of air is, without difficulty, introduced. And it may be observed that, in either case, on an average, more air is changed than in the act of ordinary tranquil respiration. In estimating the relative merits of the two plans, they are anxious to observe that other considerations are involved than that of the absolute and comparative quantity of air changed. They are unanimously of the opinion that the method advocated and practised by Dr. Bain is but a modification of the plan usually known as Silvester's, and involves no new principle of action. Indeed, in his more recent publications, Dr. Silvester has not limited his point of traction to any one part in particular of the forearm or arm. They are therefore of opinion that in the great majority of cases it is of comparatively little moment which method of manipulation is practised provided the common principle on which both are founded be fairly carried out.

Dr. Bain said the question was not as to the best mode of restoring animation, but of introducing air into the lung. The report bore out that in all cases his plan introduced more air than any of the others. No doubt there were other things to be considered in suspended animation, but that was not the question. In his plan the whole power was expended in expanding the chest; in Sylvester's it was partly fruitlessly consumed on the trunk.

Dr. Leared said that in each case the air expired was less than the air inspired; he would have expected them to be equal.

Mr. Holmes thought the report clearly admitted the superiority of Dr. Bain's method, but they could not separate that from the question of suspended animation, and the conclusion was therefore perfectly logical. It was quite true that in Sylvester's method part of the force was expended on the back; in Bain's this was not the case. Still, if Sylvester's admitted more than enough air, other matters might then be considered. Ease should be considered, facility of instruction, and so on. The report really admitted all Dr. Bain wished for.

Dr. Dobell said the same number of experiments had not been made with each process. Would not that vitiate the average?

Mr. Brooke said if any number of experiments were of equal weight, any alteration in the numbers did not affect the average. That was only influenced when their values differed.

Dr. Sansom asked what were the committee's instructions, as the two questions were very different. Many things had to be considered. In children pressure on the elastic walls of the chest was quite enough to set up a current. In suspended animation from drowning, cold, etc., had to be remedied. When insensibility resulted from chloroform vapour, that had to be got rid of. As a rule, two things had to be done: to get rid of the obstructive element and to institute a to and fro motion. Galvanisation of the phrenic was the most natural mode of instituting the latter.

Baboo Chunder Sen said that in Calcutta they employed Sylvester's method, but, as it required a constant supply of men, they now generally adopted the plan of compressing the chest and allowing it to expand by its resilience. They often required to adopt other measures. In one case they had used pressure for two or three hours, and nothing came of it till they tickled the nostrils with feathers, which succeeded. A plan similar to this had been adopted from time immemorial in India; they blew some irritating substance into the nostril to cause sneezing. Bain's method had also been tried. In reply to Dr. Routh, he stated he could give no information as to the mode in which fakirs were resuscitated.

Mr. Carter hoped that the required explanation as to the relative ease of the two methods would be given. He thought Bain's was best. He himself had mentioned on a former occasion electrisation of the phrenic; but in some experiments performed by Dr. Richardson after rabbits were apparently killed by chloroform, they could be resuscitated by means of bellows applied to the nose, but by a gentle Faradic current to the phrenic the heart was so staggered as to prove fatal. Clinically the method been very successful. Duchenne had showed that the electrisation of certain parts about the precordia stimulates the heart; the parts should be dry.

Dr. Barnes thought they should have kept to the quantity of air taken in. It might be advisable to return to the old bellows. He had considered the subject chiefly with reference to children, and too much disturbance was bad for them. He had fallen back on reflex methods. He intended to try Dr. Richardson's plan. He thought it was better sometimes to introduce only a little air.

Mr. Carter should have said that rough attempts at resuscitation killed the rabbits.

Mr. Savory said most of the labour of the committee had fallen on Mr. Pick. The quantity of air expelled was not the same as that introduced, on account of the imperfect recoil. As to facility, both methods were good. There was a great difference between introducing air and restoring life. Practically they had to deal with drowning people, whose lungs were filled with water, which had to be got rid of.

Dr. Bain said Pacini's name had not been mentioned, and contended less power was required in his method.

The President, in concluding the session, congratulated the Society on the work it had done. He particularly urged on the Fellows the importance of sending early contributions for next session.

Pauperism.—The number of paupers relieved from the poor rates in England and Wales at the end of the Midsummer quarter, 1870, was 0·6 per cent. more than at the corresponding period of 1869, and 1·6 per cent. more than 1868.

The foundation-stone of a new infirmary at Rosedale Abbey, near Pickering, Yorkshire, was laid last week. The edifice is to be at the sole expense of Messrs. Morrison, Leeman, and Sheriff, the proprietors of the estate and of the extensive mines now being worked thereon.

OBITUARY.

WILLIAM DINGLE CHOWNE, M.D., F.R.C.P.

This well-known and respected Physician was for several years in general practice in Lincolnshire. Having graduated at Edinburgh in 1827, he shortly afterwards removed to London, where he devoted himself chiefly to the practice of obstetrics. He was early associated with Charing-cross Hospital, of which institution he was one of the Physicians from its foundation, or nearly so. He lectured on the Practice of Medicine, and on Obstetrics and the Diseases of Women and Children, for many years, and only retired from active duties to become Consulting Physician three or four years ago. He was well known in the Medical societies, and was a Fellow or Member of most of them. He had filled the office of President of the Westminster Medical Society and the Medical Society of London. He was Physician to several lying-in charities, and contributed various papers and cases to the Medical journals. He contributed an interesting paper to the *Transactions* of the Royal Society in 1855, on the "Movement of Atmospheric Air in Tubes," and another in 1860, entitled "Relations between Elastic Forces of Aqueous Vapour at Ordinary Temperatures, and its Motive Force in Producing Currents of Air in Vertical Tubes." These papers were an embodiment of his opinions and experiments on a new mode of ventilation, at which he laboured for several years with great perseverance and assiduity. The plan, however, though exceedingly ingenious, was found not to be applicable in practice, and he abandoned it, after incurring immense labour and a large pecuniary outlay. Dr. Chowne belonged to a class of Physicians which is rapidly diminishing in numbers—he dressed always in black, wore a white cravat, and kept up the "dignity" of the craft. He was a Practitioner of but few resources and little suggestiveness, but was kind to a fault, and most painstaking. His treatment was rather expectant than active. His lectures were somewhat prosy, but practical; his teaching at the bedside something like his practice. But he had a high sense of honour, and was, in the strictest sense of the word, a gentleman. In all the relations of life his conduct was unimpeachable. His Professional character was of the highest, his conduct to his brethren being beyond all praise. In this respect we may well exclaim, "*O si sic omnes!*"

HENRY TURNER LANE ROOKE, M.D.

We chronicle with great regret the death of this amiable and accomplished man, which took place at the Seamen's Hospital, Greenwich, on the 17th ult. Dr. Rooke was a student of King's College, and was appointed to the post of junior Medical officer on board the *Dreadnought* Hospital ship in 1848, when the Surgeoncy was held by Mr. Busk. He obtained the latter appointment on Mr. Busk's retirement in 1854, but resigned in the following year, joined the civil Medical staff at the Crimean war, and did much active service in Hospitals near the Redan. The war being over, he returned home, was engaged for some time in general practice at Wisbeach, in Cambridgeshire; but when the next vacancy occurred in the *Dreadnought*, he returned to his old love, was unanimously re-elected, and up to the time of his death, which occurred at the age of 46, was constantly at work as Medical Chief of the Seamen's Hospital Society. Under his auspices, and with the able assistance of Mr. W. Johnson Smith, the present Assistant-Surgeon of the Seamen's Hospital, a very admirable ship-to-ship visitation was conducted in the Thames during the last epidemic of cholera. There is no doubt that this plan of prevention was specially successful, and that great praise was due to those who organised it and superintended its working. But Rooke was also well known for social qualities of no ordinary kind. His name is familiar to many sailors of many nations and many seas, and his kind and genial hospitality has caused the old *Dreadnought* to be associated with pleasant memories in the minds of many of our readers.

JULIUS BERNCASTLE, M.D.

The Melbourne papers announce the death of Dr. Berncastle, on June 30 last. He was formerly in practice at Croydon, where he was in partnership with the late Mr. Bottomley. He emigrated to Victoria some years since, where he had a good practice. The cause of his death is not stated.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday, September 15, 1870 :—

Ringer, Beverley Stewart, Metropolitan Free Hospital, City.

As an Assistant in Compounding and Dispensing Medicines:

Butterworth, Albert, Halifax, Yorkshire.

The following gentlemen also on the same day passed their First Professional Examination :—

Lee, Alfred Robert, University College, London.
Popham, Francis W. H., University College, London.
Shaw, Josephus, Guy's Hospital.
Wacher, Frank, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

PUSSELL, E. F., M.B., M.R.C.P.—Assistant-Physician to the Sussex County Hospital.

BIRTHS.

CROCKER.—On September 9, at Devonport, the wife of Staff Surgeon-Major Crocker, of a son.

ELWES.—On September 16, at 43, Porchester-terrace, W., the wife of C. W. Elwes, M.D., of a son.

HORTON.—On September 18, at Bromsgrove, Worcestershire, the wife of Charles Horton, M.D., of a son.

ROBERTS.—On September 6, at Woodlands-park, Altrincham, the wife of Wm. Roberts, M.D., of Manchester, of a daughter.

MARRIAGES.

ALLEN—THRUSTON.—On September 15, at the parish church, Pennal, William Edward Allen, F.R.C.S., Surgeon, Bengal Army, to Mary Frances, eldest daughter of Charles Frederick Thruston, Esq., of Talgarth Hall, Machynlleth.

BLACKETT—CAREY.—On September 15, at St. Mary's, Dublin, Edward Algernon Blackett, of Wylam, Commander Royal Navy, to Alicia Dorcas, eldest daughter of the late Dr. Carey, of Newtownbarry, Co. Wexford.

BOWERMAN—LINGEN.—On September 15, at St. Peter's Church, Hereford, Richard John Bowerman, Esq., only son of Richard Bowerman, Esq., of Lamb's Croft, Uffculme, Devon, to Alice Margaret, second surviving daughter of Charles Lingen, M.D., F.R.C.S.E., Hereford.

FLEMING—WESTON.—On September 20, at the Church of St. Marylebone, John Willis Fleming, Esq., of Stoneham-park and Chilworth-manor, to Ida Mary, second daughter of the late Edward Weston, M.D.

FOWLER—OSBORNE.—On September 17, at Christ Church, North Brixton, Dr. William Fowler, of Alfred-place, North Brixton, to Ellen, second daughter of Thomas James Osborne, Esq., of Hastings Lodge, North Brixton, S.W.

HOWARD—WISDOM.—On September 13, at Monkstown Church, Dublin, Francis Howard, M.D., Assistant-Surgeon Royal Artillery, to Frances Lewin, eldest daughter of Thomas H. Wisdom, Esq., of Blackrock, County Dublin.

LONG—COOPER.—On September 15, at the parish church, Cromer, Norfolk, Mark Long, M.D., of Barking-road, Essex, to Sophia Amelia, eldest daughter of James Cooper, F.R.C.S., of Colne Lodge, Cromer.

PARSONS—EDWARDS.—On September 15, at the parish church, Hutton, Francis Parsons, Assistant-Surgeon, Bengal Army, eldest son of Robert Parsons, Esq., of Taunton, to Clara, second daughter of Joseph Edwards, Esq., of Hutton, Somersetshire.

DEATHS.

BERNCASTLE, JULIUS, M.D., at Melbourne, on June 30.

CHAWNER, RICHARD CROFT, Esq., of the Abnalls, near Lichfield, a Deputy-Lieutenant, and for many years an active magistrate of the county of Stafford and also of the city of Lichfield, only surviving son of the late Rupert Chawner, M.D., formerly of Burton-upon-Trent, on September 13, aged 65.

CHOWNE, WILLIAM D., M.D., F.R.C.S., of 17, Hyde-park-place, at Withern, Lincolnshire, on September 17, aged 79.

GOODISSON, Dr. W., of the Peninsula and Oriental Company's Service, at Hong-Kong, on July 16, aged 30.

JONES, MARY, relict of the late William Jones, M.D., at Eastbourne, on September 15, in her 40th year.

MASSINGHAM, SAMUEL, the beloved son of J. E. Massingham, Surgeon, of Green-street, Victoria-park, on September 18, in his 19th year, of consumption.

ROOKE, HENRY TURNER LANE, M.D., for twenty-two years Medical Officer and Surgeon to the Seamen's Hospital Society, at the Seamen's Hospital, Greenwich, on September 17, aged 46.

TOULMIN, MINNA, the beloved wife of Abraham Toulmin, M.D., at 64, Camberwell New-road, on September 9, in the 69th year of her age.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

KELLS UNION.—NOBBER DISPENSARY DISTRICT.—Medical Officer; must be duly qualified and registered. Applications and testimonials to Mr. John M'Evoy, hon. sec., Muff, Nobber, Co. Meath, on or before October 7, the day of election.

KIDDERMINSTER INFIRMARY.—House-Surgeon and Secretary; must be unmarried and have a Surgical qualification. Applications and testimonials to the Secretary on or before October 5. Election on the 12th.

KINGSBRIDGE UNION.—Medical Officer for the Blackawton District. Applications and testimonials to W. Jarvis, Clerk, on or before October 1.

LIVERPOOL DISPENSARIES.—Resident House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary, Leith Offices, Moorfields, Liverpool, on or before the 28th inst. Election on the following day, at 2 o'clock p.m.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon; must be duly qualified and unmarried. Applications and testimonials to the Secretary on or before the 28th inst. Election the following day.

NANTWICH UNION.—Medical Officer for the Second District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. J. Miles on or before the 29th inst. Election the same day.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, MANCHESTER.—Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Barber, 41, John Dalton-street, Manchester, on or before September 30.

SHETLAND.—Medical Officer for the parishes of Mid and South Yell. Applications and testimonials to Mr. John Walker, Mayfield-house, Dressay, on or before October 1.

STOURBRIDGE DISPENSARY.—Surgeon and Secretary; must be L.R.C.P.S. and M.R.C.S. Applications and testimonials to the Secretary on or before the 26th inst.

SURREY DISPENSARY.—House-Surgeon; must be M.R.C.S. and L.S.A., and be duly registered. Applications and testimonials to Mr. R. G. Minshull Jones, Secretary, 190, Tooley-street, on or before September 26. Election on the 27th.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer; must be M.R.C.S. and L.S.A. Applications and testimonials to Mr. Smith, Portland-place, Charles-street, Worcester, on or before October 11.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Sevenoaks Union.—Dr. Nathaniel E. Cresswell has resigned the Fifth District; area 14,394; population 4154; salary £80 per annum.

APPOINTMENTS.

Chorley Union.—George Tobin, M.R.C.S. Eng., L.S.A., to the First Chorley District and the Workhouse.

Croydon Union.—Stewart B. Roberts, M.D. King's Coll. Aber., M. and F.R.C.S. Eng., L.S.A. Lond., to the Ninth District.

Haltwhistle Union.—Wm. R. Speir, M.B. and M.C. Glas., to the Eastern District and the Workhouse.

Holsworthy Union.—Robt. T. Huston, L.C.S., L.C.P., and L.M. Ire., to the Fourth District.

Lancaster Union.—Patrick James Norris, M.D. Queen's Univ. Ire., L.F.P. and S. Glas., L.M., to the Southern District.

Melksham Union.—Lewis Miller, L.R.C.P. Edin., L.R.C.S. Edin., L.A.H. Dub., L.M., to the Trowbridge District. George J. Perry, M.R.C.S. Eng., L.S.A., to the Second District.

THE LATE DR. BURTON.—Among those who perished in the *Captain* was Dr. Matthew Burton, Staff Surgeon, a native of Newbattle, near Edinburgh, and an alumnus of the University of Edinburgh. He took the degree there of M.D. in the year 1841, and had been in active service as a Surgeon in the navy, and in some of our principal naval Hospitals, up till within the two last years, when failing health obliged him to retire. Having recovered, however, he took the appointment on board the ill-fated *Captain* of Staff Surgeon. He was well known to a large circle of acquaintances, not only for Professional skill, but for his genial spirit and polished manners, and he was a special favourite with the crews of those vessels on which he had served. When at Louis, in the Baltic, attending the Russian prisoners during the war, the Russian officers showed their appreciation of him by the number of the valuable presents which he received from them. The only officer who was rescued from the unfortunate vessel, and who it will be remembered made a brave attempt to save its commander, gives, in a letter to Dr. Burton's relatives, the following particulars, which probably indicate the melancholy circumstances under which the lost men generally met their untimely end :—"I am very sorry I cannot give you much account of poor Dr. Burton. The ship capsized and turned bottom up—going down stern first in about three or four minutes. The poor Doctor must have been in bed and fast asleep, and most probably never awoke. I must beg of you to excuse me; my nervous system has sustained a dreadful shake. I am quite unable to do anything. I would wish to write you a long letter, but am quite unable to do so.—I am, etc. (signed), James May."—*Scotsman.*

GÖTTINGEN UNIVERSITY.—The following is the programme of the courses of lectures to be delivered in the Medical Faculty during the winter course commencing October 15 and terminating March 15:—Anthropology, with Demonstrations of the Blumenbach Collection, Professor Merkel; Systematic and Topographical Anatomy, Professor Henle; Dissections, Professor Merkel; Microscopical Practice, Professor Kramer; Pathological Histology, Professor Krause; General and Special Physiology, Professor Herbst; Experimental Physiology and Work in the Physiological Institute, Professor Meissner; General Pathology and Therapeutics, Professor Kramer; Pathological Anatomy, Professor Krause; Physical Diagnosis, Dr. Wicse; Pharmacology and the Properties and Mode of Employment of Medicinal Agents, Prof. Marx; Materia Medica and the Art of Prescribing, together with Pharmacological and Toxicological Investigations, Dr. Husemann; Pharmacy, Professor Wiggers; Pharmacy for Practitioners, Professor von Uslar; Electro-Therapeutics, Dr. Marmé; Special Pathology and Therapeutics and Clinical Medicine, Professor Hasse; History of Surgery, Professor Baum; General Surgery, Professor Lohmeyer; Special and Clinical Surgery, Professor Baum; Ophthalmology, Professor Schweigger; Obstetrics, Professor Schwartz; Pathology and Therapeutics of Mental Diseases, Professor Meyer; Juridical Medicine, Professor Krause; Sanitary Medicine, Professor Meissner; Sanitary Police, Professor Lohmeyer; Anatomy, Physiology, and Pathology of the Domestic Animals, Dr. Luefling. In the department of the Natural Sciences, the following lectures will be delivered:—General Zoology, with the Anatomy of the Vertebrata and an Exposition of Darwinism, Professor Claus; the Natural History of Parasites, Dr. Grenacher; Anatomy and Physiology of Plants, Professor Lantzius-Beninga; Anatomy and Physiology of Plants in Relation to Agriculture, with Microscopical Demonstrations of the Structure of Plants, Professor Grisebach; Natural History of Cryptoganic Plants, Professor Bartling; Mineralogy, Professor Sartorius; on the most Important Metals in a a Geological and Technical View, Professor von Seebach; Geology of Coal-formations, Professor Sartorius; Crystallography, Professor Lesting; Palæontology, Professor von Seebach; Electricity, Magnetism, Heat and Light, Professor Weber; Elements of Practical Physics, Professor Kohlrausch; the Eye and the Microscope, Professor Listing; Chemistry, Professor Wohler; Special Organic Chemistry for Practitioners, and Pharmaceutical Chemistry, Professor von Uslar; Analytical Chemistry, Dr. Tollens.

APPLICATION FOR CHAPS.—Glycerine, 8; spermaceti, 4; white wax, 1; essence of bitter almonds, 16 parts. Dissolve the spermaceti and wax, and then add the essence and glycerine, stirring briskly until cool. It is advantageous in chaps, cracks, and superficial excoriations.—*Union Méd., Sept.* 13.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

E.—You will find it in Sir T. Watson's Lectures.

Tyro.—Mr. Squire recommends the compound tragacanth powder as the best for suspending bismuth and other heavy powders.

An Old Borough Student is thanked for his information, which shall be used at the proper time.

E. B.—Fowler's solution of arsenic, or the "tasteless ague drop," was the invention of a Physician of great repute at Salisbury. The arsenic is dissolved in a weak solution of potass carbonate. The other solution is the invention of Dr. De Valingen, who lived in Bishopsgate-street; the arsenic is dissolved in hydrochloric acid. Each preparation in the P.B. is of the same arsenical strength. The solution of corrosive sublimate in tincture of bark is mentioned by Sir A. Cooper; we do not know its author. The corrosive sublimate is often dissolved in tincture of chloride of iron; or it may be dissolved in a solution of iodide of potassium, to which iodide of iron may be added. Before giving the *pills*, see that they are soluble in warm water. Some pills become so hard as to pass through the intestinal canal unaltered.

Sweet Air.—No doubt it is better to get rid of bad smells by ventilation than to hide them by perfumes; but let us suppose a case in which a bad smell cannot be got rid of. There are houses in which, during certain winds, currents of ill-smelling air are introduced, often from considerable distances. Again, sinks and closets are at times odoriferous in the best-regulated houses. Then the question comes, are perfumes of use besides *hiding* a smell? Do they not also destroy it? We have not the proofs at our elbow, but we believe it to be well ascertained that some essential oils, as lavender, create an organised condition of atmosphere during their oxydation, and hence that they are useful, and not luxuries only.

DISTRESS PRODUCED BY THE WAR.—AN APPEAL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It has come to my knowledge that a Physician (whose name, for obvious reasons, I would rather not publish, but one who has in his day done much for the advancement of Medical science) is in great distress at this moment, in consequence of the disastrous war now raging on the Continent. Ill-health compelled him some time ago to relinquish practice, and his wife has been receiving pupils in France. She and her husband are now locked up in a small town not far from Paris, into which the Prussians are daily expected to enter. Dr. and Mrs. —— are the only English left in the place, and they are scarcely able to obtain the commonest necessaries of life. The school was to commence last Monday, and the pupils, each bringing money with her, would have provided the means requisite for maintaining the establishment till Christmas. As it is, I can see nothing but ruin and beggary before my poor friends unless an effort is made to save them. If their landlord and the few tradesmen left were assured that they had means to pay, they might get on somehow for a while; but if not, they must starve. Surely there will not be wanting among the members of our Profession some to help a poor brother in such distress.

I will commence a subscription with £5, and my friend, Dr. Stocker, has offered a similar sum. Any subscriptions sent to me, or paid into my account at Messrs. Coutts', for the O. W. Fund, will be thankfully acknowledged. I am, &c. JOSEPH S. LAVIES.

11, Warwick-square, S.W., September 16.

Intending Emigrant must be registered in the Colonial Register. He will not be allowed to practise until his name is regularly enrolled.

Dubious.—It is immaterial. The new comer may call on the residents, or *vice versâ*.

Lector.—The *e* is long.

Falmouth.—The Act can only be enforced in those places which are specifically mentioned. It gives no permissive power in other districts.

St. Moritz.—We have learned many particulars respecting this popular health-resort from a friend who has been there during the present summer. The air and the scenery deserve all that is said of them; the indigenous iron waters and the food are in some respects objectionable. The waters are described as heavy, constipating, heating to the mucous membranes, and causing great thirst; whilst the diet, though good in many respects, is wofully deficient in fruit and vegetables. It almost raises a dismal smile to be told that the Doctors of the place affirm fresh fruit and vegetables to be injurious during the *cure!* The ways of foreign watering-place Doctors would furnish materials for many a satirist.

MIDWIFERY PRACTICE FOR STUDENTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Hoping that I shall not encroach on your columns, I wish to make a proposition on behalf of the students who attend midwifery at the London Hospitals (I mean the out cases). Sometimes the cases are inadequate to meet the demands of the students; I therefore propose that the respective parishes should arrange for the students to attend their cases, and thus do away with the midwife, and secure the safety of the patients; but let the parishes do their duty, and provide the necessaries of life, such as meat and wine, which the poor creatures are sadly in need of. Hoping you will have the kindness to insert this letter on behalf of my fellow-students. I am, &c. A STUDENT.

N. B.—It is absolutely necessary he should be registered.

A Mother.—Revaccination is resorted to in every recruit joining the Prussian army. There is no such regulation with respect to the French army.

A. N.—Mr. Pattison, on leaving his Professorship at the University of London, emigrated to America.

Student.—The Hospitals were united at the time. Some particulars of their disunion, and the quarrels consequent upon it, will appear in due time.

An Old Pupil.—Dr. Robert Grant, the English Cuvier, is still alive. We saw him a few days since looking as well as he has done for the last thirty years.

Scriptor.—The operation was performed by Mr. Liston at what was then called the *North London*, now *University College Hospital*.

A Friend to Animals.—We have seen several numbers of *The Animal World* published by the Society for the Prevention of Cruelty to Animals. It is admirably got up and excellently conducted, and promises to exercise a great influence, particularly amongst children, in fostering a kindly and gentle feeling towards animals. Twelve monthly parts have already appeared. The work should be in every household.

Bookworm will find some very rare old books in the library of the Medical Society of London.

Dr. A. H.—The question has been decided several times, both in the courts of law and equity. If the party disposing of his practice undertakes not to practise within a certain distance, say three miles, it means he is not to visit or attend a patient within that distance of his residence at the time he disposed of his business. If he infringe the contract the whole penalty may be enforced, even though no specific damage can be proved. In this respect the covenant acts more stringently than in many documents of a like character referring to other transactions. The offender might be proceeded against by injunction in the Court of Chancery, or by action at common law for damages.

Inquirer.—The statement referred to those who took a prominent part in the trial. We are quite aware that one of the witnesses at least is alive; but his evidence had little or no influence on the verdict. The subject will be continued, if not concluded, in our next.

M.D., M.R.C.S.—We think the coroner was bound to subpœna a Medical witness in such a case. The inquest would be manifestly most imperfect and unsatisfactory if Medical evidence were not taken. The Chief Coroner for England is the Lord Chief Justice, and it would be advisable to forward a statement of the facts to him.

Myopia.—Reply to "Crescens."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—That some myopic eyes may be diseased, is no reply to my argument. I asserted that some persons are short-sighted from their earliest remembrance; that employment on minute objects at close distances, so far as it is a consequence of learning the alphabet, is a thing which all children share alike; that with short-sight there is not, as a rule, any history of disease; that short-sighted persons are capable of using their eyes largely upon minute objects in dull light, and of continuing their work for many years without detriment, at an age when long-sighted persons take to convex glasses. Further, from personal observation, I asserted that the vision for distant objects in the horizon improves in a short-sighted person by time, though that for near objects does not. With reference to the occupations of short-sighted persons, let me add that they choose such as suit their eyes, which were myopic to begin with; and lastly, let me say that once conversing with an eminent London ophthalmologist, of my own age, he asked me to read the maker's name on his watch. I read very easily "Kraftenburger," in the minutest type, which was invisible to him, and was told, "There is nothing the matter with your eyes." I contend, then, that organs capable of long-continuous and minute work cannot be "diseased," unless the word "disease" is to be used for every congenital peculiarity.

As for the expression "running to nerve," and if so, "to what nerve," "Crescens" can make very little use of his excellent eyes and ears if he is not aware of the use of the term to express the tendency in some families to produce children of delicate conformation, very sensitive, but ill-endowed with muscle and bone. Why, even here, in my holiday, the French novel of M. Edmond About, with which I am recreating myself, contains this expression—"les êtres faibles et charmants chez qui l'éducation moderne a développé les nerfs au détriment de tout le reste."(a) If I may take the liberty, let me advise "Crescens" to read this novel—it will be a remedy for that exclusive addiction to "all work," etc., etc., from which he seems to be suffering. I am, &c. Myops.

Sept. 20.

COMMUNICATIONS have been received from—

A Student; Dr. Day; Mr. Leach; Mr. Tait; Mr. Johnson Smith; Dr. Schmitt; Dr. Turnbull; Messrs. Blackwood; Sydenham; Mr. A. Muster; Mr. H. Arnott; Mr. J. Chatto; Dr. William Strange; Dr. B. W. Richardson; Dr. W. Whitelaw; Mr. Edward T. Blake.

BOOKS RECEIVED—

Annual Report of the Medical Officers of Health of the Holborn District—Dr. Liebreich's Atlas of Ophthalmoscopy—Tyndall on the Scientific Use of the Imagination—Transactions of the St. Andrews Medical Graduates' Association, vol. iii.—Myers on Diseases of the Heart among Soldiers—Annual Report of the Royal Albert Asylum—Balfour's Statistics of Cholera—Professor Huxley's Address at Liverpool—Annual Report of Tewkesbury Rural Hospital—Bulletin Général de Thérapeutique, September 15—New York Medical Journal, September.

NEWSPAPERS RECEIVED—

Chemist and Druggist—Nature—Pharmaceutical Journal—The Shield—New York Medical Gazette—The Lancaster Guardian—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

September 24. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

26. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

27. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

28. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Weed), 2 p.m.; Royal London Ophthalmic, 11 a.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

30. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

(a) Les Vacances de la Comtesse. Par E. About. Paris. 1865. P. 214.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 17, 1870.

BIRTHS.

Births of Boys, 1002; Girls, 984; Total, 1986.
Average of 10 corresponding weeks, 1860-69, 1931·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	618	579	1197
Average of the ten years 1860-69	627·4	592·1	1219·5
Average corrected to increased population	...	...	1342
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	2	31	...	1	...	5	1	13
North ...	618210	1	1	35	1	1	1	10	7	13
Central ...	383321	...	2	14	1	1	1	1	2	14
East	571158	8	3	18	1	4	2	2	4	13
South	773175	2	...	59	5	7	1	3	5	20
Total	2803989	11	8	157	8	14	5	21	19	73

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·037 in.
Mean temperature	54·0°
Highest point of thermometer	68·8°
Lowest point of thermometer	37·5°
Mean dew-point temperature	48·5°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·21 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 17, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Sept. 17.	Deaths Registered during the week ending Sept. 17.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	1986	1197	68·8	37·5	54·0	12·22	0·21	0·54
Portsmouth ...	122084	12·8	78	45	70·6	36·2	52·5	11·39	0·00	0·00
Norwich	81087	10·9	58	60	65·0	40·0	52·1	11·17	0·37	0·94
Bristol	171382	36·6	123	109	65·7	42·4	54·9	12·72	0·12	0·30
Wolverhampton ...	72990	21·5	52	26	66·3	38·7	53·5	11·95	0·20	0·51
Birmingham ...	369604	47·2	288	128	65·5	34·9	54·0	12·22	0·23	0·59
Leicester	97427	30·4	68	49	68·2	35·5	53·3	11·84	0·56	1·42
Nottingham ...	88888	44·5	49	30	66·0	34·8	52·5	11·39	0·39	0·99
Liverpool	517567	101·3	359	306	62·9	41·5	54·4	12·44	1·17	2·97
Manchester ...	374993	83·6	255	185	65·8	35·0	52·4	11·33	0·96	2·44
Salford	121580	23·5	93	65	65·5	37·0	52·4	11·33	0·92	2·34
Bradford	143197	21·7	86	54	63·7	39·8	53·1	11·73	0·52	1·32
Leeds	259527	12·0	190	150	63·0	37·0	52·9	11·61	0·35	0·89
Sheffield	247378	10·8	177	123	65·0	36·5	52·9	11·61	0·53	1·35
Hull	130869	36·7	74	65	65·0	31·0	49·3	9·61	0·58	1·47
Sunderland ...	100979	30·5	62	37	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	76	59	62·0	42·0	51·0	10·56	0·66	1·67
Edinburgh	178970	40·4	139	62	65·7	36·0	53·1	11·73	0·20	0·51
Glasgow	468189	92·5	375	208	62·6	34·5	51·8	11·00	0·66	1·67
Dublin (City, etc.*)	321510	33·0	159	142	68·4	44·0	57·7	14·28	0·49	1·25
Total of 20 Towns in United Kingd'm	7216325	33·8	4747	3100	70·6	31·0	53·0	11·67	0·48	1·22
Paris—Week ending Sept. 17	1889842	242	...	1263	...	...	...	...	...	...
Vienna—Week ending Sept. 10 ...	622087	167	...	307	...	...	63·1	17·25	...	...
Berlin—Week ending Sept. 15 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·037 in. The highest barometrical reading was 30·37 in. Friday, and the lowest was 29·67 in. on Wednesday.

The general direction of the wind was W.S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

THE MEDICAL FACULTY OF PARIS.

CLINICAL LECTURE AT THE HÔPITAL DE LA PITIÉ,

ON SHAKING PALSY.

By B. BALL, M.D.,
Professeur Agrégé in the Medical Faculty of Paris.

GENTLEMEN,—You may have observed in our wards during the last two weeks a woman attacked with that interesting and singular nervous affection commonly called shaking palsy. You have also, doubtless, been struck with the general appearance and the singular expression—I might almost say the strange look—of this patient. But that which above all and at first sight attracts our attention is the convulsive trembling which agitates her upper extremities, and which, at the slightest effort or upon the least emotion, increases in violence.

These symptoms first made their appearance two years ago, following a fit of anger. The trembling, which began by being almost imperceptible, soon increased, being first localised to the right half of the body. The left arm and the left leg were afterwards successively attacked, until finally, during the last twelvemonth, the disease has made such rapid progress as to render work quite impossible. In the midst of these great disorders of voluntary motion we find the muscular energy of the upper extremities but little diminished. Not so, however, with the lower members; these have grown sensibly weaker. The gait is consequently troubled, though this is by no means due to feebleness alone. As long as this woman advances slowly and with short paces propulsion is regular, but as soon as she tries to hasten her steps the upper half of the body inclines automatically forwards, precipitates her walk, and she loses her balance. Nevertheless, she has never fallen up to this time, which may be attributed to her great timidity and extreme cautiousness.

With the trembling of the hands, and as if to stamp the disease with a decisive character, from the very beginning another not less important phenomenon made its appearance—a violent and painful contraction of the sterno-mastoideus of the right side had caused such a deviation of the head that the patient was obliged to support the same with her hands. The rigidity of this muscular band has gradually diminished; however, it still persists enough, at least, to be easily appreciated. As to the general appearance of the patient, a single glance is sufficient to show that she is a highly sensitive and extremely nervous subject, who trembles at the slightest emotion.

Now, gentlemen, if you turn from this excitable female to the man who occupies No. 30 of St. Paul's ward, you will stand in presence of a patient who also trembles, but with a certain degree of calmness—if I may so express myself. The symptoms in this case, which first made their appearance eight years ago, began with painful cramps of the lower extremities, which lasted for a few months, and then gave way to a tremulous motion; this latter symptom, limited in the first instance to the right side of the body, soon became general. A tendency to a propulsion of the body forwards was observed about the same time, and gave so striking a feature to the gait of this patient as to attract the attention of passers-by in the street. You might easily have mistaken him for a person under the influence of liquor. He walked with the body bent forwards, and the hands resting upon his thighs, as if to resist this invisible power which kept pushing him onwards.

Such an infirmity, gentlemen, for a man whose profession is that of a tiler and whose business it is to work on the roofs of houses, might give rise to serious accidents. You will consequently not be astonished to hear that the patient has been several times obliged to quit his work and enter the Hospital for Medical aid, which, however, we must confess, has been quite powerless; for, in spite of temporary ameliorations, the patient, after each of these apparent cures, has invariably fallen back to the state in which you now find him.

If examined in bed early in the morning, after the rest of the night, the subject does not exhibit any very marked trembling; but the moment he is in the least fatigued or excited, decided oscillations are immediately manifest. This trembling, which forms the predominant character of the disease, exhibits two remarkable peculiarities—1st, it is permanent; 2nd, it occupies the whole of the body. It affects the four members, the trunk, and the head, the oscillations of which, directed from above downwards, coincide with those executed by the hands moving from below upwards.

Those among you, gentlemen, who have had occasion to be interested in agricultural pursuits will doubtless remember the action of the farmer winnowing wheat—our patient, when standing, imitates the motions of a winnower quite faithfully. The comparison of these two cases will permit us to enter upon the study of shaking palsy with a certain degree of interest; they resemble each other in some respects, they complete each other in others; and the description of the disease is thus illustrated, so to say, by the examples which you have before you.

In a clinical lecture it would, of course, be out of the way to give an historical view of the disease. You know that English observers were the first to bring it to notice, but that of late the subject has been extensively studied in France, and that several new points have been brought to light, particularly by Dr. Charcot and his school at the Salpêtrière.

Shaking palsy presents two forms of invasion—the slow and the rapid form. The early progress of the disease is in most cases insidious. The trembling is limited to one hand, to one foot, or even to a single finger, sometimes the thumb. After a certain length of time, it extends to other parts of the body.

The disease adopts, in the majority of cases, the hemiplegic form, and the patient trembles for a long time on one side only. In other cases it exhibits the paraplegic form, and the lower limbs alone are agitated by those convulsive movements. Lastly, there exists a third and very unusual form, in which an intercrossing of the symptoms is observed—*i.e.*, the right hand and the left foot tremble, or *vice versâ*. But in general the four extremities become equally affected after a while. The head is spared, as a rule, and Dr. Charcot has never met with a single exception; our male patient, however, is an instance to the contrary.

Again, the commencement of the disease may be marked by symptoms of a different character. Pains, and sometimes intense pains, are felt in the diseased limbs, along certain nerves, followed by contraction of various sets of muscles. It occurs (1) in the limbs themselves; (2) in the trunk; (3) in the neck, where it chiefly affects the sterno-mastoideus. Our female patient affords us an example of this latter case.

Such are the initial phenomena of shaking palsy; but the disease, once fully developed, is characterised by three prominent symptoms—trembling, rigidity, and pain. Let us examine each of these separately.

The trembling of shaking palsy is oscillating and rhythmical; it is usually exaggerated by all voluntary exertions—as in our male patient—and by any violent emotion—as in the female. But by far the most important feature is its permanency. The patient trembles at all times, even when in a state of perfect rest; of course, the extent of the oscillations is far less considerable than when he is engaged in active occupations, but there is always a certain degree of agitation in the limbs. If, however, the patient's arm is placed upon a flat board, so as to rest there perfectly for a moment, a temporary cessation of the movements may be obtained: but this only lasts a few seconds, and the trembling soon reappears. *Sleep* and *anæsthetics* are the only means of arresting these oscillations; and herein the disease differs essentially from chorea, in which the patient is often agitated although he is asleep.

The head and face, as we have already stated, are generally exempt from these disturbances; but the features of the patient, though there exists no paralysis of the facial muscles, present an unmeaning and blank expression. Lastly, it may be well to state that nystagmus—that particular convulsive motion of the eyes so frequently met with in other nervous affections—is here absent.

At the same time, when the disease has lasted for a certain period, the patient's muscular strength begins to fail and the least exertion becomes fatiguing. The limbs move in a peculiarly stiff and ungainly manner, as if there existed an anchylosis of all the joints, and this, by a superficial observer, might be mistaken for paraplegia, with contraction. Although the patient is weaker than when in health, there is no real paralysis in the case, and the dynamometer easily enables us to measure the degree of strength still remaining.

Another symptom exhibited by several patients is a certain slowness of speech: they articulate distinctly, but with a marked slowness—our male patient presents this peculiarity—and in this respect there seems to exist at least a superficial resemblance between shaking palsy and general paralysis. We shall soon have to point out the differences which separate these two widely divergent affections.

Lastly, intense pain is sometimes felt in the diseased limbs; at other times, various perversions of sensibility take place

Dr. Charcot has found certain patients complain of an intense heat all over the body, so that in the midst of winter they could hardly bear their clothes on—a sensation which, of course, is not accompanied by any actual increase of temperature. The fact has been fully proved by thermometrical examinations. Both of our patients have so far remained free from any of these painful manifestations of the disease.

Another and most singular symptom of shaking palsy is the impulsion experienced by several patients, which compels them either to walk rapidly onwards or else move backwards contrary to their will. This symptom is strongly marked in both our cases, especially in the man; but there are cases in which it arrives at a much higher degree of intensity. I had occasion some years ago to observe in Professor Bouillaud's wards a subject who, whenever he made an effort of any kind, found himself seized with a violent impulse, forcing him to rush forward at full speed until he met with some obstacle on his way to arrest his progress. This horrible infirmity interfered with the most commonplace functions of ordinary life. You will excuse me, gentlemen, for alluding to one particular detail of the case, but the patient could not even pass a motion without being suddenly propelled against the opposite wall. You can easily imagine the inconvenience attending a similar state of things.

This singular tendency of the patient to rush forward has been sometimes attributed to the forced inclination of the body. The patient, as Trousseau used to say, runs after his centre of gravity, which escapes him (*le malade court après son centre de gravité qui se déplace*). But this ingenious explanation will scarcely account for the cases in which the patient, instead of running forwards, is urged to the rear.

This strange phenomenon must, therefore, be looked upon as a perversion of that great faculty of the nervous system which, co-ordinating all our movements, endows them, independently of the will, with a majestic harmony.

Apart from the pains and the burning sensation of heat already mentioned, there seldom ever exists any disturbance of the sensorial functions; and this is one of the leading differences which separate shaking palsy from locomotor ataxy, in which latter disease the above phenomena are very prominent. The symptoms which we have described, however distressing, do not endanger life itself; and the disease, therefore, may last for years; but the climax is reached at last, and the patient falls into a state of permanent helplessness.

The hands and feet are in many cases utterly deformed—a consequence, in all probability, of the muscular contraction which we have already noticed—exactly as in chronic rheumatic arthritis. The consequently increasing weakness of the patient, and the racking pains which affect the limbs, compel him to remain a helpless cripple in bed, unfit to move without assistance, and hardly able to take his own food.

Lastly, as death approaches, a symptom of solemn importance makes its appearance. The tremulous motion, which for so many years had agitated the patient's limbs, ceases suddenly. In this respect we find a singular analogy between the ultimate period of shaking palsy and that of other painful affections. Observe, for instance, the last moments of a patient dying with puerperal peritonitis: while the abdomen is inflated, the diaphragm pressed upwards, and the lungs compressed so as hardly to allow space for breathing, the patient is free from all dyspnœa, and feels comparatively better—in fact, the nervous sensibility which made her feel the pangs of asphyxia is now exhausted, and nature casts a veil over the last painful moments of life.

It seems natural to suppose that so singular and marked a disease should be attended with equally well-marked anatomical disorders; such, however, is not the case, and Dr. Charcot's diligent investigations have proved that in many cases the naked eye can discover no lesion whatever in the nervous centres, and that, where any such do exist, they are far from presenting the same character at all times. The morbid changes described in the pons varolii by some anatomists only exist in a very limited number of cases, and everything leads us to believe that they are rather the *consequence* than the *cause* of the disease. No doubt some material changes do exist, but they have escaped our investigations, and up to the present time shaking palsy must be classed with those essential disorders of the nervous system the seat of which, anatomically speaking, remains unknown.

We must now establish a diagnosis of this affection, and distinguish it from all other neighbouring diseases.

The tremulous motion, which is evidently the most prominent symptom of shaking palsy, belongs to it in common with several other disorders of the nervous system. But an important difference must here be observed. There are two distinct kinds of trembling, which Galen already described under the names of *τρόμος* and *πάλμος*; the one consists in uninterrupted agitation of the limbs, the other only occurs in voluntary motion. In the first case, the patient, whether at rest or not, always trembles; in the second, he only trembles when exerting his muscular power. The type of the first may be found in chorea, and a good example of the second is afforded by mercurialism. Now, shaking palsy belongs to the first, and not to the latter class; and this, gentlemen, is the touch-stone of our diagnosis. I will not attempt to give here a complete description of all the diseases which might be mistaken for this affection; but there are a few to which I would direct your attention: locomotor ataxy, chorea, alcoholism, metallic tremor, and the cerebro-spinal form of *sclérose en plaques*.(a)

In locomotor ataxy, the chief symptom consists in a loss of the power which co-ordinates our movements, and this does not exist in agitating paralysis. True, we find in this latter disease an impulsive tendency, which propels the patient forwards or impels him backwards; but this symptom, never yet observed in locomotor ataxy, is totally different from that peculiar incoördination which so strongly marks this affection. Moreover, the tremulous motion, by far the most predominant symptom in the one case, is entirely absent in the other; and no attentive observer can possibly mistake the irregular movements of ataxy for the characteristic tremor of shaking palsy.

In chorea we find movements of a more irregular order; and, as Dr. Charcot observes, the general form of the intended movements is preserved even in the worst cases of shaking palsy, whereas in chorea the perversion is so great that the patient's intentions are sometimes completely frustrated. In short, the movements of chorea have not inaptly been termed *des grimaces de la motilité*.

As to the effects of alcohol and mercury upon the nervous system, the tremulous motion which they produce only resembles shaking palsy in its earliest stage, and the ulterior progress of the disease leaves no room whatever for doubt. Besides, the trembling alluded to is *intermittent* and not *continuous*—a characteristic difference, the full importance of which can be readily understood.

Tremor senilis generally affects the head and lower jaw—a circumstance not observed in shaking palsy. Besides, the progress of the disease is entirely different: the tremulous motion of old age being a mere infirmity, while shaking palsy, after a long succession of phenomena, ends in death, according to the process we have already described.

There is only one disease which in its confirmed state can be mistaken for shaking palsy—a disease hitherto little known, but the clinical symptoms of which the school of the Salpétrière has lately brought to light—we allude to that singular alteration of the nervous centres actually described under the name of *sclérose en plaques*.

This affection, taken in its cerebro-spinal form, occasionally exhibits (for inexperienced observers) all the symptoms which we have been describing; the principal difference which distinguishes it from paralysis agitans is the intermittent character of the tremulous motion. The trembling in disseminated sclerosis only occurs in *spontaneous motion*. The reverse is the case in shaking palsy: the *onus* of diagnosis, therefore, rests chiefly upon this difference. We might observe that the lower limbs are frequently paralysed and rigid, through muscular contraction in sclerosis, while, in the disease we have just been studying, no real paralysis ever exists. We might also remark that muscular weakness generally precedes the tremulous motion in sclerosis; that the impediment of speech closely resembles that of general paralysis; and that the patient is frequently affected with nystagmus—a symptom which, as we have noticed, is wanting in shaking palsy. But the importance of the subject induces me to set it aside for a future investigation.

Allow me, gentlemen, to pause here for a moment. Is it not strange that of two diseases which exhibit almost identical symptoms, the first should coincide with no appreciable disorders of the nervous system, whilst the second presents some of the most characteristic changes which have ever been discovered in the nervous centres. It must, however, be borne in mind that, even from a clinical point of view, these two neighbouring affections exhibit strong differences. But we refrain from urging this argument, since on a future occasion it is our purpose to enter more deeply into the subject.

(a) This latter disease not having been hitherto described (as far as our knowledge extends) by English observers, we are at a loss for an equivalent to the French term, *sclérose en plaques*.

As regards prognosis, we have already stated what are the patient's prospects. Life is not threatened with immediate danger, and the disease may go on for twenty or thirty years before the fatal issue arrives; but to cure it is almost an utter impossibility. It should be borne in mind, however, that the patient's condition may frequently be improved by judicious treatment, and that the most painful symptoms may be relieved for a considerable period of time.

The causes of shaking palsy are but little known. Violent emotions—anger, fear, surprise, on one hand, and cold on the other—are supposed to be the most active factors in the production of the disease. It appears also that Surgical injuries, especially those which involve certain nerves, have occasionally brought on the complaint.

As to the influence of age, we can only say that senility does not seem to possess any special influence in this case. The classical period of shaking palsy lies between forty and fifty; both our patients fall under that head.

The treatment of shaking paralysis is, like that of most essential diseases of the nervous system, in the highest degree unsatisfactory. Without attempting to enumerate the various methods which have been proposed by authors, we shall be content with stating that nitrate of silver—whatever its efficacy may have been in other affections—is here positively injurious, and that galvanism, according to German authorities (Remak), has occasionally been found serviceable.

There is, however, a new substance loudly clamouring for admittance into the field of therapeutics—viz., *chloral*—which is supposed to possess properties holding a place between that of opium and of chloroform. We are consequently inclined to administer the hydrate of chloral to our patients by way of experiment, and whatever the result may be, we shall certainly have lost no ground by making this last attempt.(b)

LECTURES ON DERMATOLOGY.

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Lecture VI.

Mr. President and Gentlemen,—Onychopathia, or disease of the nails, brings under our notice disorder of nutrition affecting the structure of the nails, and diseases of the skin and soft parts immediately related to the nail, together with errors of development. In a tabular plan they might be arranged as follows:—

Group 15.—Onychopathic Affections.

1. *Diseases of the Nail.*
   - Flores unguium (mendacia).
   - Selene unguis.
   - Lapsus unguis.
   - Alopekia ungualis.
   - Scabrities unguium (defœdatio, degeneratio).
   - Tinea unguium.
   - Mollities unguium.
   - Fissura unguium.
   - Ungues fibrosi.
   - Onychogryphosis.
   - Ekzema unguium.
   - Lepra unguium.
   - Phytosis unguium.
2. *Diseases of Appurtenances.*
   - Pterygium unguis.
   - Agnails.
   - Ficus unguium.
   - Onychia { Idiopathic. Strumous. Syphilitic.
3. *Errors of Development.*
   - Arctura unguis.
   - Ungues adunci.
   - Unguis bifidus.
   - Ungues spurii.

The colour of nails is sometimes abnormal. They vary in tint and in transparency; sometimes they are dotted over with small white opaque spots, which are termed *flores unguium* and *mendacia*, while the general appearance of the nail in such a case is designated *selene unguis*; and at other times circular spots of a yellow horn-like colour are perceptible on the matrix of the nail, as we find to be the case in lepra unguium.

Defective nutrition of the nail is evinced by the occurrence of loss of the nail, or *lapsus unguis*; while the permanent absence of the nail has been termed *alopekia ungualis*.

During illnesses affecting the nutrition of the general system, there is often a suspension of growth of the nail, but more frequently a deficiency of growth. Hence we find the nail traversed by grooves corresponding in depth and breadth with the severity and continuance of the predisposing illness. Roughness of the surface of the nail from irregular growth has received the name of *scabrities unguium*, *degeneratio unguium*, *defœdatio unguium*, and, where the nail has the appearance of being eroded, of *tinea unguium*. From the same cause the nails are sometimes softer than natural, *mollities unguium*; sometimes they crack longitudinally, *fissura unguium*; and occasionally they have the appearance of being fibrous in their structure, *ungues fibrosi*. Certain differences also result from the seat of operation of the morbid process. Thus, where the posterior fold of the nail is chiefly concerned, the surface of the nail principally suffers; but where the morbid action is present in the matrix an accumulation of crude epithelial substance is apt to take place, which separates the nail from its bed more or less completely, and raises the extremity of the nail, causing it to curve upwards in an oblique and sometimes almost vertical position, hence the term *onychogryphosis*. The nutrition of the nails is often interrupted in cases of ekzema of the fingers, *ekzema unguium*, and they are left rough and deformed; and they are frequently partially separated from their matrix by an opaque and crumbling mass of epithelial substance (onychogryphosis) in lepra, *lepra unguium*, and by phytiform substance in *phytosis unguium*.

The cuticle of the posterior wall of the nail is sometimes carried forwards on the surface of the nail, giving rise to an appearance which has received the name of *pterygium unguis*. At other times the margin of cuticle of the posterior wall splits into shreds, and the shreds, leading on to fissure of the derma, are often the cause of considerable pain; these are the so-called *agnails*. And, again, the posterior wall of the nail is sometimes inflamed and infiltrated, and at the same time everted, and in that manner forms a prominent ridge, which has been termed *ficus unguium*, "ficus" being a common appellation of the Latins for a growth of any kind, and in that sense compared to a *fig*, as in the instance of the tubercular growths accompanying sykosis.

Onychia is an inflammation of the matrix and walls of the nail, attended with suppuration and fungous granulations, and generally followed by the loss of the nail. It is sometimes *idiopathic*, proceeding from external injury, but is occasioned most frequently by scrofulous disease or by syphilis.

Deformity of the nails dependent on faulty development sometimes results from their contraction longitudinally, *arctura unguis*; and at other times they are curved at the tip, *ungues adunci*, as in the clubbed finger of the consumptive. Occasionally they are *supernumerary*, as in cases where a tendency exists to the bifurcation of a phalanx, *unguis bifidus*; and at other times they are found at the extremity of an amputated stump, whether of a finger or of a limb, *ungues spurii*.

It is rare that the nails manifest a complete suspension of growth; but their excessive growth as a consequence of neglect is by no means unusual. To this head we must refer those extraordinary specimens of lengthened and twisted nails which are so numerously preserved in our museums, and which are procured from bedridden persons.

16. Chromatopathic affections, or affections of the pigment system of the skin, have their seat within the rete mucosum; the colours which are produced are simply a modification of its normal pigment, and their claim to consideration as a pathological condition is founded chiefly on their occurrence in excessive quantity and in abnormal situation. The black of the human skin is always more or less mingled with yellow, giving rise to various shades of black, brown, and yellow, with an occasional variation in favour of green, the colour blue, which is occasionally met with, being the only tint which appears to be wanting as a normal pigment of the skin. In a tabular scheme we might arrange the chromatopathic affections as follows:—

Group 16. Chromatopathic Affections.

Melasma.
- Fuscedo *seu* nigrities.
- Chloasma (maculæ hepaticæ.)
- Ephelis.

(b) The male patient has been considerably benefited by this treatment, which, however, has been found entirely powerless in the case of the female subject.

Xanthochroia.
Flavedo cutis.
Maculæ luteæ.
Lentigo.
Kyanochroia.
Leukasmus.
Achroma *seu* albinismus.

Melasma, dermatomelasma, or melanoderma, is the name which we give to the darker shades of the skin, whether they be deeply black or a simple *fuscedo*, or duskiness, or swarthiness of hue. Occasionally the brown blended with yellow has a greenish tinge, as in the instance of *chloasma*, and sometimes the yellow is in excess, producing *xanthochroia; kyanochroia*, or blueness of the skin, has been seen occasionally, though rarely; while the absence of colour or achroma, the *leukasmus* or *dermato-leukasmus*, is an exhaustion of pigment formation, and is far from being uncommon.

Melasma has acquired a new interest of late years from its association with diseases of viscera supplied by the organic system of nerves, with diseases in which sanguification is deranged; as, for example, in disease of the capsulæ suprarenales, as pointed out by Addison; in affections of the solar system of nerves, resulting from shock, as observed by myself; and in affections of the uterine system, such as disordered menstruation, pregnancy, and organic diseases of the uterus. Occasionally it is met with as a general swarthiness of the skin (*melasma universale*), but more commonly is partial (*melasma figuratum*). When the patches of the latter kind have a greenish or greenish-yellow tint they are denominated *chloasma*, and when they result from the stimulus of the sun's rays *ephelis*. Undue stimulus and exhaustion of power are active causes in the production of melasma, as in the instances of simple hyperæmia from the application of a blister or other irritant to the skin, the prolonged continuance of lepra, the exhibition of arsenic, and the presence of cachexia from whatever cause—*e.g.*, syphilitic, or cancerous and rheumatic cachexia, etc.

Xanthochroia is the term applied to the yellow discolorations of the skin produced by pigmentary change. It is not uncommon to find on the legs below the knees a mottled discoloration of a bright reddish-yellow colour, consequent on a slight pre-existing hyperæmia; and in most instances the hyperæmia may be traced back to congestion of the capillaries from varicosity of veins. A more common manifestation of xanthochroia is met with in *lentigo* and *lentigines*, which, although in general of a golden-yellow tint, are sometimes greenish, like chloasma, and sometimes also black (*lentigines nigræ*). There is reason to believe that these yellow discolorations are also occasionally due to the deposit of fatty globules in the cells of the rete mucosum.

Kyanochroia, or blue discoloration of the skin, rests for its authority chiefly on a case recorded by Billard d'Angers. It was observed on the forehead, face, front of the neck, chest, and abdomen of a young girl, and he remarks that the little maiden who was the subject of the affection blushed blue instead of blushing red.

Leukasmus, dermato-leukasmus, or leukoderma, like melasma, may be more or less general or partial, the partial form being termed *leukasmus figuratus*. Leukasmus figuratus is a pathological loss of colour of the skin from arrest of pigment formation, and is very commonly associated with a blanched and debilitated state of the derma. It is also very generally accompanied with melasma, the skin immediately bordering the white patches being more deeply pigmented than the rest of the surface.

In those members of the human family with whom colour is highly developed, to the extent of becoming a characteristic of race, achroma is a somewhat common manifestation of disordered function of the skin. Leukasmus figuratus is far from being rare in tropical countries, as in Hindostan and South America, and is occasionally seen in the black skin of the negro. In volume xx. of the "Histoire Naturelle, Générale et Particuliere," of Baron de Buffon, may be found certain communications made to that distinguished naturalist by M. Taverne, burgomaster and sub-delegate of Dunkirk in the year 1772. He says, "I send you, sir, a portrait which was found in an English prize, captured in the last war by the corsair *La Royale*, in which I was interested. It is that of a little girl who was partly black and partly white. The hands and feet are entirely black; the head is the same, with the exception of the chin, including the lower lip and a part of the forehead; the front hair or wool is also white, and there is a black spot in the middle of the white blotch upon the forehead. All the remainder of the body, arms, legs, and thighs, is marked by black spots of various size, and upon the larger black spots are seen smaller ones of a blacker tint still. From the figure of the spots, the child may be likened to a dappled or piebald horse, and the black and the white are blended imperceptibly by a mulatto tint."

A few weeks later M. Taverne, writing to Buffon again, observes:—"The original of the portrait of the black-and-white infant was discovered on board *Le Chrétien*, of London, bound from New England to London; this ship was captured in 1746 by the vessel *Comte de Maurepas*, of Dunkirk, under the command of Captain François Meyne." That original having lately come into my possession, I have now the opportunity of exhibiting it on the present occasion. I may remark upon the admirable painting of the picture, and especially call your attention to a scroll in the right-hand corner, on which is inscribed the following legend:—

"The true picture of Mary Sabina, who was born Octr. 12, 1736, at Matuna, a plantation belonging to ye Jesuits, in ye City of Cartagena, in America, of two negroe slaves named Martiniano and Patrona."

But our little variegated damsel has a more recent rival in George Alexander Grattan, the spotted negro boy, exhibited for several years at country fairs by the celebrated Richardson. A portrait of the spotted negro boy, by Coventry, is hung in the vestry of the church of Great Marlow, in Buckinghamshire, where also may be seen a monument, with an inscription:—

"To the memory of George Alexander Grattan, the spotted negro boy, a native of the Caribbee Islands, in the West Indies, who departed this life February 3, 1813, aged 4 years and 9 months: this stone is erected by his only friend and guardian, Mr. John Richardson, of London."

The spotted negro boy was born of negro parents, on the plantation of Mr. Alexander, in the Island of St. Vincent, about June, 1808, and was conveyed to London soon after reaching Bristol in September, 1809; he was then fifteen months old, and was consigned to the "showman" for three years. His skin and woolly hair were particoloured, transparent brown and white. There were several figures of triangular shape, one within the other, on the head; and a broad band of white descended from the crown of his head over the forehead, nose, and lips to the chin, while the cheeks and the rest of the face were black. On the limbs the white predominated over the black, the latter presenting a large blotch over the scapula, another over the deltoid, one of considerable extent upon the forearm, a large patch around the knees and ankles, and scattered minor spots in the intermediate space and upon the back of the hands and fingers. He was well proportioned in figure, a bright and intelligent child; but, being attacked with swelling of his jaw, he shortly after died. It is recorded that, with a wholesome dread of the anatomists and "resurrection men," Mr. Richardson kept him unburied for three months before he was interred.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS ON THE TEMPERATURE OF DISEASE.

By EDWARD LONG FOX, M.D.,
Physician to the Bristol Royal Infirmary.

(With a coloured Diagram.)

X.—DISEASES OF THE KIDNEY.

In treating of diseases of the kidney in connexion with the temperature of the body it will be well to take as simple a division as possible. Clinical observation seems to show that Dr. Dickenson's classification of renal diseases, according to the anatomical arrangement of the tissues of the kidney, is true to nature, and its simplicity cannot be overrated.

Acting, therefore, upon these views, the majority of the morbid conditions affecting the kidneys may be classified either as diseases of the tubes and their contents, of the fibrous stroma, or of the bloodvessels; and these diseases differ from each other in clinical history as in post-mortem appearances, although in advanced stages they may, to some extent, coincide in the same kidney. This classification, however, does not include renal abscess, in which all the structures may be more or less implicated. This condition may have its starting-point

in any one of the elements of renal structure, according as it is produced by backward pressure of obstructed urine, by the irritation of a calculus in the hilus, by cold, or by irritation conveyed through the blood.

To speak first, then, of renal abscess.

Case 68 was a girl, aged 13, who had had hæmaturia three years before she came under observation. It was supposed that the pus she passed on admission was due to abscess of the kidney, caused by calculus. The bladder was healthy. The pyrexia was very similar to what is observed accompanying the formation of pus in any part of the body. The case resulted in pyæmia, having the renal abscess as its starting-point, and the child had large collections of matter in almost every part of the surface of the body, especially just below the right scapula and in the muscles of the back at various points. Two years afterwards she was heard of in tolerable health, having struggled through with the utmost difficulty; but even then the urine was not perfectly free from pus. The urine was copious throughout.

In such a case the thermometer would not be as useful as the microscope, but it would assist in the diagnosis between this condition and the only other renal disease accompanied by very high temperature—viz., tubal nephritis from cold. The remissions in the former are not so regular nor so intense as in the latter, whilst the thermometer seldom reaches so high a point, except, perhaps, for a short time at the commencement of the disease. The temperature is not so high where the kidney is being gradually destroyed by the backward pressure of the urine, which generally affects the renal structure by mechanical pressure merely; whilst sometimes, from the irritative condition of the urine itself, a low form of inflammation is set up, and pus is passed, if the obstruction to the flow of urine is not complete. In a case of this kind, where the obstruction was caused by the growth of melanoid cancer near the opening of the right ureter into the bladder, and the right kidney was found almost entirely destroyed, the temperature during life never exceeded 99° Fahr.

Very different, however, is the temperature in tubal nephritis occasioned by cold. Case 69 was a lad of 15, who had been lifting heavy weights, and who caught cold on the same day. The attack began with violent pain in the back and hæmaturia, without any œdema of the face or extremities. He recovered under the use of leeches, the hot air-bath, and diaphoretics. The acute stage of the disease is shown in the accompanying table, and the high temperatures recorded were coincident with a very tolerable amount of urine, averaging from two and a half to three pints. The height of the temperature and the very intense remissions remind one more of acute tubercle than of any other disease, but the remissions are more regular than in the latter malady, and there seems to be also a stationary period and a point at which defervescence commences, although this period varies extremely, according to the area of the kidney implicated, the amount of urine excreted, and probably also the remedies used.

Disease of the kidneys with such a temperature may be diagnosed by this symptom alone from abscess by the elevations being higher and the remissions lower and more regular; from scarlatinal nephritis by the far greater height of the elevations in the former than in the latter, unless some complication co-exist with the scarlatinal form; from chronic nephritis, small granular kidney, or amyloid kidney, by the height of the temperature alone.

Very different, again, is the temperature in most cases of scarlatinal nephritis. Cases 70 and 71 were two little brothers, aged respectively 5 and 7, and both brought under observation from the commencement of the disease, with puffiness under the eyes and œdema of the lower extremities. The elder one (case 71) was passing only eight ounces of urine on admission, but, under a little infusion of digitalis, the dropsy and the albumen rapidly disappeared, and the child recovered. The temperature never rose much above the normal point, whilst the low temperature of the latter days of the illness, although partly due possibly to the digitalis, afforded evidence of the slight pyrexia in this malady. So much, indeed, is this the case that a decided elevation of temperature in scarlatinal nephritis may often be considered as a sign of some intercurrent disease. Case 70 was an example of this. For the first six days after admission his temperature was scarcely raised above the normal point, and for the first three days he only passed four ounces of urine daily. On the seventh day of observation and the tenth of the disease he was passing fourteen ounces of urine; but his temperature rose to 104⅕° in the evening, and during the next six days was maintained more or less stationary, though with irregular remissions, and on the seventeenth day defervescence began. This high temperature coincided with a sharp attack of pneumonia. After the child's recovery from this pulmonary condition, and after entire defervescence of the temperature, the urine remained for another three weeks more or less bloody and highly albuminous, and the dropsy only disappeared very gradually. In this case no digitalis was given.

In the masterly paper on Scarlatina, by Dr. Sidney Ringer (*Med.-Chir. Trans.*, vol. xlv.), the temperature is given of five cases in which the urine became albuminous. In Case 1 the urine became albuminous on the twenty-fourth day, the highest temperature of that day being 101° F.; but the temperature of the preceding day, on which there had been no albumen, was higher still—101⅘°. In Case 6 a slight amount of albumen appeared on the ninth day, with a temperature of 102⅛°; the albumen was much increased on the tenth day, with a temperature of 98° and 99¼, and on the eleventh with a temperature of 99⅝°. In Case 16 the albumen appeared on the fifth and sixth days, whilst defervescence steadily progressed. In Case 19 the albumen was found on the twenty-third day, with a temperature that continued normal for ten days afterwards, and then rose to about 102° for three days, with increase of blood, albumen, casts, and uric acid. In Case 29 the albumen appeared on the fourth day, the temperature being below the normal; on the fifth and sixth days the albumen increased, and the temperature rose to 104° and 104⅘°; on the eighth day the albumen increased still more, whilst the temperature was normal; on the ninth day the albumen diminished, whilst the temperature recurred to 104°, and the child died of uræmic convulsions on the twelfth day.

It is difficult in the face of these and similar cases to connect the elevation of temperature very definitely with the nephritis. The truth seems to be that the tubes of the kidneys may be so obstructed that only 4 oz. of urine are excreted in the twenty-four hours, and yet hardly any pyrexia will be present; that there is no definite ratio, direct or inverse, between the temperature and the amount of blood, of albumen, or of casts present in the urine; that a large amount of albumen may be accompanied with a very high temperature, and also with one rather below the normal point; and that the co-existence of a high temperature with scarlatinal nephritis may sometimes be due to the nephritis itself, but much more often to some intercurrent disease occasioned by the blood-poisoning caused by the condition of the kidney, or to the condition of the blood itself before it has set up pathological conditions in any other organ.

Some four years ago Dr. Hermann Weber called the attention of the Profession to a peculiar form of chronic albuminuria occurring some time after scarlatina, and differing in several respects from scarlatinal nephritis. "It is evident, I think," he says, "that the nature of the renal disease in these cases is not identical with that in the so-called scarlatinal dropsy. The latter occurs within the first three or four weeks; it is generally associated with dropsy; the urine in the beginning almost always contains blood; and a certain amount of feverish disturbance is scarcely ever absent; while in the cases under consideration the albuminuria certainly did not originate before the end of the sixth week after the commencement of the eruption, and probably still later, and was unattended with dropsy, with bloody urine, and with pyrexia." (*Med.-Chir. Trans.*, vol. xlix.) Dr. Weber holds that the connexion between this albuminuria and scarlet fever is not an intimate one—perhaps not more intimate than this, that, through the scarlet-fever process, the entire system is left for some time after the so-called recovery in a peculiar state of deterioration, in which, through unfavourable influences, morbid dispositions may be created, or existing dispositions developed into actual diseases.

Case 72 was one of chronic tubal nephritis. A man, aged 44, who had been a great drinker of beer, remarked some œdema of the feet eight weeks before admission. When first seen, he had a good deal of dropsy of the feet, legs, and scrotum; urine rather scanty, specific gravity 1011, very albuminous, with granular casts. He died in a few days.

Post-mortem Examination.—Aortic valve diseased; some hypertrophy of left ventricle of the heart; and large smooth kidneys.

In this case the temperature was higher than normal during the short time he was under observation, but it never exceeded 100°. A similar registration was observed in Case 73—also an example of chronic tubal nephritis. The patient, a man aged 40, had been ill for six weeks with much dropsy; irregular action of heart, without valvular disease; impaired digestion; urine very scanty, often not more than six ounces in the twenty-four hours, specific gravity 1029, very albuminous, and containing granular and hyaline casts. After little more than

a fortnight's sojourn in Hospital he became so much worse that he insisted on going home to die. In this case the highest temperature was only a little above 100°, and the morning remissions were generally about one degree lower.

The temperature of these two cases are illustrative of the uncomplicated disease. In very many cases of chronic tubal nephritis the temperature may be higher, showing the existence of inflammation of some one or other of the serous membranes, to which patients with this form of renal disease are especially liable.

Fatty kidney, a condition generally due to fatty degeneration of the tubal epithelium, occurs most usually in the course of chronic nephritis. It is not attended with any pyrexia.

Disease of the fibrous stroma, granular degeneration of the kidney, is illustrated at its very commencement in Case 74, and at a much more advanced period in Case 75. Case 74 was an example of albuminuria from pregnancy. The albuminuria resulting from this cause is due to renal congestion from mechanical pressure, and will often pass away when the child is born, and the uterine pressure removed. But it is certain, as Dickenson says, that if the congestion has been such as to cause much interstitial effusion, it may give rise to increased fibroid growth, subsequent contraction, and the other changes attending granular degeneration. This condition is attended by a certain amount of pyrexia.

The woman whose case is tabulated here had been confined five weeks before, and was the subject of a peculiar facial spasm, in which the right eye was closed, or almost closed, with a somewhat uncertain action of the orbicularis palpebrarum, and a drawing-up of the muscles of the right side of the face. Less often, a corresponding action takes place on the left side of the face, with closure of the left eye. Besides this, she had at times a very rapid semi-convulsive nodding of the head. During her sojourn in the Hospital she had two fits, but eventually lost all the nervous symptoms, although the albuminuria remained the same. Whilst the increased growth of the fibrous tissue is progressing, some elevation of temperature seems to be present; but this is not intense, and it would be impossible by the thermometer alone to diagnose these cases from chronic tubal nephritis, or even from many cases of uncomplicated scarlatinal nephritis. In judging of the temperature of this form of renal disease, we must choose cases unaffected by bronchitis or by pericarditis, the most common intercurrent maladies met with in this complaint; and we should take care that the patient is not suffering at the time of observation from gout, so frequently a cause of this condition.

In Case 75, observations of a few days are noted because the case was a peculiar one. With a temperature a little above the normal, the patient was passing no less than 168 oz. of urine, specific gravity 1010, containing a very large amount of albumen, and no sugar. The patient did not remain long under observation, and no opportunity was afforded of determining by post-mortem examination whether the case was one of granular fibroid degeneration or of the depurative disease of the kidney, the so-called amyloid form. The temperature in this latter form is very apt to be masked by that due to the suppuration, which is most generally its cause.

HEAT AND NERVOUS CURRENT.

By NATHANIEL ALCOCK, L.C.P.I.,
Assistant-Surgeon, 35th Regiment.

July 8th.	97° Morning.	July 13th.	96·6° Morning.
	100·4° Evening.		100·8° Evening.
9th.	96·4° Morning.	14th.	96·6° Morning.
	100·2° Evening.		103° Evening.
10th.	97·4° Morning.	15th.	103·8° Morning.
	100·3° Evening.		103° 4 p.m.
11th.	97·4° Morning.		105·8° 10.30 p.m.
	100·8° Evening.	16th.	106° 1.30 a.m.
12th.	97° Morning.		106·6° 6 a.m.
	98·8° Evening.		

Died at 9.30 a.m.; 104° an hour after death.

Such is the thermometric expression of the life of the patient during the last eight days of his existence, showing a state of intermittent elevation of temperature for the first seven, and (with a fractional exception) a continuous increment of heat during the concluding six-and-thirty hours.

Gunner P., Coast Brigade, Royal Artillery, was admitted into Hospital on July 2, in consequence of pain in the front of the head succeeding a debauch, and attributed to the presence of a piece of necrosed and denuded bone, about the size of a shilling, above the right frontal protuberance, the result of previous abscess, probably syphilitic, and which had been like this for a considerable time without producing any inconvenience. In consequence of his complaining of shivering fits, followed by sweating, and on learning that he had never served in any malarious climate, which would have accounted for a relapse of ague, I looked to the thermometer for information, and finding that, although the evening temperature was high, the morning heat invariably fell below the natural standard, I excluded the existence of inflammation, and was unable to understand the readings of the instrument farther than that a daily wave of fever passed over the system, probably due to some morbid impression on the nervous centres.

On the 11th and 12th he was up and about, as he was much less affected by the pain in his head, and on the latter day, which was intensely hot, he exposed himself to the sun's rays; yet on that evening his temperature was lower than usual. On the 13th his improvement was checked.

On the 14th he was very ill, pale, sunken, and anxious, yet his morning temperature remained lower than natural; on this evening, however, his temperature reached 103°, exceeding by more than 2° the highest previous reading, and on the morning following he was insensible.

Compression of the brain seemed to be negatived by contracted pupils, flushed face, throbbing temporals and carotids, hurried breathing, quick, full, but very compressible pulse, and by irritability of the bladder, a symptom noticed by Deputy Inspector-General Longmore in incipient sunstroke. Seeing his bed wet with urine, I attempted to pass a catheter, but was prevented by spasm of the neck of the bladder; yet on withdrawing the instrument a full stream of urine followed; similar ejections took place several times during the day. The fæces were retained.

The symptoms strongly resembled those of heat apoplexy, and I believed them to be produced by the recent high temperature acting on a very depressed nervous organism, and that such action was further invited by the existing disease of of the bones of the head.

The post-mortem showed the dura mater attached by recent adhesions to the entire surface of the calvarium, with the exception of one portion extending from the left frontal sinus to a point above the right frontal protuberance, corresponding with the externally necrosed bone. Throughout this extent it had evidently been long thickened, and was covered on both surfaces with a layer of green gelatinous matter, being detached from the bone, which was white and glistening above, and from the grey convolutions beneath, which were deepened in colour, apparently augmented in size, and softened in texture, but free from any infiltration of pus. The subjacent white substance was remarkably white. At the starting point of this diseased tract, but within the cavity of the left frontal sinus, was a small collection of unhealthy pus, and at its terminus the external necrosis had softened the underlying tables of the bone. The remainder of the dura mater displayed a network of bright dilated arteries; the surface of the brain was covered with distended veins. No abnormal accumulation of fluid existed in any of the cavities.

Referring to the thermometric history, we learn the exact date up to which the chronic disease dictated the symptoms, and almost the moment at which they were overruled by the supervening inflammation. Yet we are as far as ever from explaining how, during the first period, the nerve-power, accumulated in sleep, depressed the morning temperature, while its expenditure during wakefulness caused it at evening to ascend; or why each day a paroxysm of fever disturbed the nervous balance. Nor can we yet pronounce by what steps, during the second stage, the abnormal bodily heat, being denied all intermission, was gradually increased till death occurred. The dilated arteries of the dura mater, the recent lymph, and the distension of the cerebral veins (producing signs of irritation rather than compression), being the sole legacies of that acute stage, we are driven back on the words, "disordered function and increased metamorphosis," which mean nothing but our ignorance.

We can only vaguely conceive that an uncontrollable evolution of nerve-force is taking place, without any interval for reaccumulation, and is expressed by extreme rapidity of the heart, which, from consequent exhaustion of its intrinsic nerve-power and inanition of its substance, dies first, leaving, as it gradually declines, so much force unappropriated; and thus the brain, outliving the heart as well as every other structure, pours forth its final currents, which are all unused, and appear

as heat, raising the temperature, as the electric fluid does of any body through which it passes.

One fact, I think, we learn—that we are cramping truth by attributing elevation of bodily heat too much to chemical action—which I cannot believe, with Dr. Richardson, is augmented on the cessation of apparent life—and too little to the evolution of the nervous current.

North Fort, Liverpool.

THERAPEUTICAL PROPERTIES OF IODINE.

By W. WHITELAW, M.D.

In connexion with Dr. Stirton's practical paper on iodine, published in your impression for September 3, I beg to refer your readers to a compendium of Dr. Richardson's well-known article on iodine, printed in the *Social Science Review* for July, 1864. From that article, packed with valuable information, here is one paragraph:—"Iodine may be used successfully for another purpose—viz., in cases where the breath is very fœtid. The metalloid may be placed in a common smelling-bottle, and may be occasionally inhaled to such an extent as not to produce soreness or dryness of the nostrils or throat. We have known it thus applied with great and immediate advantage, and have found it destroy almost at once the disagreeable odours arising from the eating of onions and from smoking tobacco. We have also recently used it, on the suggestion of Dr. Wynn Williams, as an application to fœtid and indolent ulcers and sores on the human body. In Hospitals, at the instance of Mr. Hoffman, of Margate, it is now employed in the beds of the sick in some cases, as where there are extensive bed-sores. In these cases the chip-box is employed, the box containing the iodine, and covered with muslin, being placed under the bed-clothes. To this process there is one objection: the sheeting becomes tinged of a brownish colour. The discoloration is easily removed, however, by washing the sheets with a little soda—in a word, iodine may be considered as the readiest and the best of all disinfectants."

Various valuable papers on the therapeutic properties of iodine are scattered over the Medical journals. In the *Lancet* for August 6, 1864, there is mention of a case of erosive ulceration of the derma of the nose, cured by Mr. Ure with the external application of iodine.

In your own journal has appeared a paper on the danger of iodine poisoning, of which the *Medical Circular* for Nov. 9, 1864, gave the following summary:—

"The subject was an Indian lad, aged 17, who had become a patient from mumps, the sequel to a bilious remittent or Bombay fever. When the acute stage of inflammation of the parotids had passed away, the remaining enlargement was painted with a very strong solution of iodine, the tincture having been rendered much stronger by evaporation. Five hours after the using of the paint, vomiting and purging supervened, and on the day following there were present all the symptoms of iodism in their severest form. Death occurred in about thirty hours after the application of the iodine. A post-mortem was made, and the examination showed that the mucous membrane of the stomach was studded with small ecchymoses; that the small intestines presented similar ecchymoses. The left kidney was atrophied, weighing only an ounce. Bladder healthy, containing ʒjss. of urine, in which were slight traces of iodine."

In my own practice, the internal use of small doses of iodine, with iodide of potassium, in bitter effusion, is a reliable remedy in cases of syphilis; and, as a gargle for sorethroat in the same cases, tincture of iodine and solution of chlorinated soda in water are of marked benefit.

The compound iodine ointment, rubbed into the shin-bones of syphilitics, banishes the usual nocturnal pain felt in the legs. The same ointment, four days after a fly blister, is very useful when applied in cases of chronic pleurisy.

In the dysmenorrhœa of corpulent women iodine inwardly is also useful. Taking a hint from the *Medical Times and Gazette* for July 10, 1869, I have used it successfully for periodontitis, as recommended by Professor Abbott, of New York, in the following way:—℞ Tinct. iodine and tinct. rad. aconite, equal quantities. Apply to gums with a brush once or twice a day, three drops at a time. Allow to dry on gums.

In combination with any anodyne liniment, iodine is a beneficial outward application in cases of chronic strumous peritonitis; and presently under my charge there is an obscure painful swelled knee case, in a young woman, that has been benefited by the external application of liniments of iodine, chloroform, and belladonna, in combination. While I have cured two cases of scrotal hydrocele, one in a mason and the other in a baker, with iodine—the operation being performed in late Mr. Syme's simple manner—equal success has not followed its injection into the sinuous ulcers of strumous subjects; and in the treatment of ringworm, iodine has proved inferior to either strong acetic acid, sulphurous acid, or lotion of corrosive sublimate.

Kirkintilloch, N.B.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

MR. MAUNDER'S CLINIC.

Case 1.—*Depressed Fracture of Skull—Escape of Brain-matter—Recovery.*

A LAD, about 10 years of age, having fallen down a ship's hold, sustained a simple fracture of one thigh and a compound depressed fracture of the frontal bone. Mr. Maunder determined not to interfere in order to raise the bone, as to do so it would have been necessary to use the trephine, and expose the patient to hernia cerebri. Also, the patient being young, the tables were probably not much splintered, and as the depressed bone had already risen towards its proper level, he hoped it would still rise, and membranous irritation, beyond what had already occurred, be avoided. No bad symptom followed, and the patient made a rapid recovery.

Cases 2, 3, *and* 4.—*Indolent Ulcers.*

Two of these were similar as regards the obstacle to healing. Each sore consisted, as it were, of two parts—a central, freely granulating, and a circumference, also freely granulating, the two portions being separated by a groove. When Mr. Maunder examined them, it was found that the central mass arose from muscle, the circumferential from skin and subcutaneous tissue. In either case the sore was on the leg, and when the patient was desired to bring the toes into action and move the ankle-joint, the central mass also moved to and fro. The cause of the persistency of the sores was manifest, and a splint being applied, the muscles could no longer act, the two sets of granulations coalesced, and the wound quickly healed.

The third case illustrates the value of opium. A girl, about 11 years of age, was the subject of multiple ulcers on one leg, with a negative history. For many weeks she was kept in bed with good diet, and took for a few weeks tonics; then for a few weeks iodide of potassium, as much as ten grains thrice daily. This treatment availed little, and then one-third of a grain of opium was given thrice daily. From this time the sores began to heal, and cicatrised completely. Throughout the treatment she was under the same dietetic conditions, and the issue does appear to be very like cause and effect.

MIDDLESEX HOSPITAL.

DISLOCATION OF HIP INTO THE THYROID FORAMEN — REDUCTION WITH AID OF PULLEYS, AFTER FAILURE BY MANIPULATION.

(Under the care of Mr. DE MORGAN.)

PATRICK H., a labourer, aged 35, and a strong, robust man, had been drinking rather freely on Sunday, July 10, 1870, but was not at all drunk. He began jumping in a field, and had twice cleared a hedge with a ditch beyond, when, on taking it the third time, he alighted with his left foot in the ditch, and his right upon the bank in front. His thighs were thus widely separated, and he immediately felt a sudden "start" in the right hip-joint, and fell forward. He attempted to rise, but could not do so, and was lifted into a cab, and brought directly to the Hospital. He had never injured himself before, and had only once been laid up—seven or eight years previously—with rheumatic fever.

On examination, after getting him to bed, it was found that the right leg was markedly everted, and that adduction was impossible; that a distinct hollow existed on the outer side of the right hip, in the situation of the trochanter major; that beneath the attachment of the adductor muscles to the pelvis

a hard prominence could be felt, and that the muscles themselves were much stretched. The right leg was lying widely separated from the left, and from the median line, and could not be brought nearer without the attempt causing great pain. From the position of the right limb it does not seem to have been evident to superficial observation which limb was the longer, but a measurement taken from the anterior superior iliac spine to the external condyle of the femur on each side showed the right to be two inches shorter than the left. (This measurement, however, must have been affected by the adducted position of the limb.)

Mr. De Morgan first tried to reduce the dislocation by manipulation, flexing the knee thoroughly, and then bringing the thigh across the abdomen with a rotary movement; and this failing, whilst the man was kept fully under chloroform, the pulleys were applied, and after much trouble the head of the bone shifted to the dorsum ilii, and finally returned to the acetabulum. The limb was afterwards kept absolutely at rest, and the man went out well in a few weeks.

BIRMINGHAM GENERAL HOSPITAL.

THREE CASES IN WHICH CONTRACTION OF THE PUPIL WAS A PROMINENT SYMPTOM.

(Under the care of Dr. J. RUSSELL.)

I LATELY reported a case of injury to the cervical vertebræ in which contraction of the pupil was a striking phenomenon. I now add the three following cases, which have lately occurred to me. Though they are connected together by the presence of the one symptom I have indicated, they have no other subject of common interest, excepting as they illustrate the various circumstances under which contraction of the pupil presents itself to our notice. Individually, the latter two cases have points of considerable interest. I have to acknowledge the help of my friend Mr. A. Bracey, of our Eye Hospital, in the first two; in the third, of our House-Physician, Dr. Welch.

Case 1.—*Congenital Myosis.*

E. T., aged 42, complained of nervous depression and much irritability, with bad sleep. He had no symptoms of a more definite character. I found his pupils contracted to the size of a pin's-point, and I could not produce any effect on them by cutting off the light. Mr. Bracey found that he read No. 1 Brilliant perfectly with 16-convex glasses. He dilated the left pupil with atropine, but it did not reach beyond one-half, and remained dilated for six or seven days. The optic disc and retina were perfectly healthy. The man had used the same glasses since he was twenty years of age. He can work without glasses; but his sight is not equally strong in hot weather, and occasionally, though very rarely, fails him for an hour or two.

Case 2.—*Adhesion of the Iris—Former Syphilis—Rheumatic (?) Rigidity of the Ligaments of the Cervical Spine and Maxillary Articulation.*

H. P., aged 48, applied on the same day with the preceding patient, his eyes presenting precisely the same appearance and behaviour under light. The pupils were contracted to pins'-points. Mr. Bracey diagnosed adhesion of the papillary margin to the anterior capsule of the lens. The entire neck is fixed by complete rigidity of the cervical column; it is immovable, and of one piece with the chest. The face looks somewhat down, and cannot be raised. The entire cervical region feels perfectly hard, but does not present any local thickening. The patient cannot separate his teeth beyond three-quarters of an inch. His chief complaint is of pain in each side of the cervical region. He has some difficulty in swallowing, the food feeling to stick in the throat; he refers this difficulty to the position of his neck, and this is probably correct. The action of all the cerebral nerves is unimpaired. It is remarkable that all his other joints are quite free from disease. He is very cachetic and anæmic. His heart is healthy. His urine is free from albumen. He is a gardener, and exposed to great alternations of temperature. He had a primary sore on the genitals eighteen years ago, and was salivated for it. Soon afterwards he had an attack of rheumatism in his foot, and also severe inflammation, first in the right eye, then in the left; but I do not know of the connexion of these three attacks. Twelve years ago he had an ulcerated throat. His present illness began eighteen months ago, with pain in the thick of the right thigh, then in the knee, afterwards in the shoulder, and finally in all his joints; he has never lost this pain since. The joints have never swelled; there has been no perspiration; his urine has been muddy and high coloured at times. His neck became affected in about a month, and subsequently the jaw; these two parts have been progressively stiffening. Fourteen months ago the right eye inflamed, with severe pain; six months afterwards the left eye participated, and the sight has remained permanently dim. It is interesting that a seton placed in the neck during the affection of the neck produced a series of attacks plainly epileptic, which necessitated its withdrawal in three days, after which the fits ceased entirely. He had never had fits before.

Case 3.—*Contraction of the Pupils in conjunction with Cerebral Disease.*

The chief interest in this case lies in its affording an example of combinations of symptoms, not infrequently met with, containing certain of the phenomena which usually accompany locomotor ataxy, yet with so much difference in their grouping as clearly to indicate a different cause. The unsteadiness of the gait, the inability to stand when the eyes were closed, the pains in the lower extremities, might be taken as belonging to an early stage of locomotor ataxy; but, on th other hand, the arrangement of these same symptoms, and the absence of change in the ocular apparatus, both visual an motor, would alone have thrown doubt on the diagnosis o ataxy; and the other symptoms of the case come in to negative the hypothesis altogether. It is worthy of note that Trousseau's "method of distinguishing the muscular incoördination of locomotor ataxy from that which results from some kinds of cerebral disease" failed in this case, as it did in the one by Dr. Lockhart Clarke, from whom I quote this sentence (*St. George's Reports*, p. 92)—"If the patients," he (Troussean) says, "be placed upright, with the feet close together, and then shut their eyes, the ataxic patient will stagger and fall; but the one who has disease of his cerebellum will perfectly maintain his equilibrium" (*vide* also Dr. Wilks, *Medical Times and Gazette*, vol. ii. 1868, p. 578). This diagnostic mark was also contradicted in my present case.

J. W., aged 43. He has been subject for two or three years to the "rheumatics"—pains in his legs, which sometimes had an aching, sometimes a darting character. The pains occasionally, but rarely, rose above the knees; they were sufficiently severe sometimes to keep him awake at night. Whilst in the Hospital, he had an attack of pain, which occurred in paroxysms, and "made him sweat." He then pointed to the left anterior superior spine of the ilium as the seat of chief suffering. He has also had some pain in his left hand, but not of moment; but his left hand has felt numbed, sufficiently so to render him awkward in picking up hairs in his work. The right hand has never been affected. Occasionally in walking the left leg, sometimes the right also, would give way; but he could walk for miles. He has also had some tendency, during these two or three years, to incontinence of urine, and it is doubtful whether the sphincter ani may not have participated slightly. He has never had headache; he made no complaint of giddiness; his vision has not been affected in any way, excepting that sometimes, when in pain, "dulness has come over his eyes." For the last twelve months his memory has been sufficiently impaired to be noticed by his shopmates. Swallowing has never been affected.

Ten weeks before admission he was seized suddenly with a fit of dizziness, which left his left arm weak, and rendered him unable to walk without help; he staggered as if drunk; the pains in his limbs also became more severe, and he went to salt water baths under the impression that his complaint was rheumatic. Three days ago a second and more severe attack of dizziness occurred. He denies having had syphilis, but lost his hair and eyebrows sixteen years ago, and at that time had an abscess in his throat.

We found some weakness of the left arm; but his chief symptoms concerned his lower extremities. He stood quite steadily when his feet were placed together; he raised them well in walking, but had to separate his feet somewhat, and was liable to stagger, especially when turning round. This tendency was greater when his eyes were fixed on the ceiling; his legs were then kept separate to maintain his balance; he walked with his body bent a little forward, and his gait became more rapid as he advanced. With his eyes blindfolded, or even with them closed to enable us to test his pupils, his body immediately began to sway, and required support to prevent his falling. Sensation was repeatedly tested in the lower extremities. The result was somewhat uncertain; but, at the most, interference with tactile sensibility was very slight. Electric irritability and sensibility was low. His urine was not fully retained; occasionally he wetted his bed. The urine was free from

albumen and sugar. The aspect of his face was wanting in expression, his speech was rather drawling, and his memory somewhat defective; he had, in fact, the character of a man in the early stage of general paralysis. The various cerebral nerves were healthy. The senses were healthy; but there was marked contraction of the pupils, which could not be induced to dilate beyond one-quarter, though repeatedly experimented on. By atropine, however, they dilated fully. Sight was good, and accommodation extended from seven to sixteen inches. Dr. Welch found the optic disc quite healthy.

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Medical Times and Gazette.

SATURDAY, OCTOBER 1, 1870.

THE FORTIETH ENGLISH PARLIAMENT OF SCIENCE.

An assemblage of three thousand persons in a great centre of England for the sole purpose, as professed, of advancing science, can hardly be allowed to pass without special notice by a Medical scientific journal. At this assemblage men of all nations and men of all scientific beliefs, mental properties, and mental powers, have met together, to give and to take, or it may be to buy and to sell—for, in a certain sense, the meeting is a great mart, to which, as in the mediæval times, "all the world doth congregate to bring and barter store and store." Nor are men alone represented at these scientific gatherings; there are the women, too, who, if not the most active workers, are by far the most industrious observers, who watch every movement, every new phase of thought, with keen eyes; who in matters Medical are singularly critical; and who carry home to their respective circles of life a better and shrewder picture of what has occurred than even those correspondents who are the actual chroniclers of the time. Let us, then, briefly look back at this last assembly of the magi and the *magæ* and see what they have done.

First of all—and the point is worthy of the earliest notice—none of the wise folk seriously sacrificed themselves to severity of hardship. The cry, indeed, from the President all through the ranks, was of oppression from luxury, and there is no denying that a sharp endemic of dyspepsia, happily attended by an unappreciable mortality, did break out before the close of the meeting. This phenomenon is common to all meetings of the Parliament of Science, and is one of those morbid states for which no one can be held in fault; for those who receive must entertain, and those who are entertained must eat and drink as distinguished visitors who come to feast, not, as ordinary mortals, to exist only.

Neither were the magi and *magæ* under any severe hardship for food of the mind. The feast of reason was savoury, at all events, if not very sustaining; and the flow of soul was brilliant and sustaining, if not majestic and enthralling. The worst feature of all was that debate went too much on one subject. Imagine a musical instrument—violin, if you please—brought down to one string; and instead of a Paganini being always in possession of it, suppose it be taken up for the edification of a company for six days by any amateur who may have the courage to venture performance upon it. Occasionally there might be an artist who could play; but what of the artists in general? of those particularly who cannot make two notes; of those who have no ear for time; of those who disregard time; of those who really can play, but play madly; and of those who, equally good as players, play sadly?

The one string of the Parliament of Science this year, from which the prime of the harmony was squeezed out in strange vibration, was spontaneous generation. The President started the business at a moment when all was quiet—at a moment when the Association, in its virgin evening attire and innocence, was willing to be led whereseever so fascinating a soothsayer was willing to lead it. In truth, the great voice of the meeting afterwards was but the continuation of the President's opening address; and, if it were the hidden intention of Professor Huxley to enforce this result, his strategy was as perfect as that of Von Moltke himself. The echo divided, as the speech did, into two happy inconsistencies. "We know nothing," says the speech, "nothing of life except as life springing from pre-existing life;" and the echo, in a very much louder tone, repeated the sentiment, on which cheers followed cheers in acknowledgment of the correctness of the proposition. "But," continued the speech, "in the construction of the planet there must have been a time when there was no life in the planet, and therefore it is possible that life did once spring from something that was not pre-existing as life;" and the echo repeated the sentiment, again in a much louder tone, and once more followed the cheers in acknowledgment of the philosophy.

Thus for six days the meeting; and thus, whoever played the one string, the ultimate result came forth that life was first created out of the dead planet, and then became continuous through life. Philosopher Huxley said so, and his admiring subjects came solemnly to the same opinion, by infinitudes of ways and processes too laborious to tell; and thus the one popular lesson of the British Association, in this year of grace, was this message of science to the world. It is a satire of satires; it is science, in the pride of her growth and overweening confidence, and contempt of the old in proportion as the old is oldest, proclaiming as a novelty the science of six thousand years ago, which every schoolboy still reads—"And the Lord God formed man of the *dust* of the ground, and breathed into his nostrils the breath of life, and man became a living soul." Thus history repeats itself even in philosophy; and a wag who proposed that the theory of generation should henceforth be called the Moses-Huxley theory, was hardly profane.

In this notice we have touched on the general, the leading controversy of the Association of the present year, our object being to show that it led unconsciously to the re-recognition of an old theory which in some minds is consecrated into a faith. But in many minor ways the said controversy led into questions relating to disease, during which the music of the one string, rarely artistic and always wanton, was sometimes hideously grotesque. The germ theories of disease, and germs in general, were in such profusion that escape from them, had there been any realities about them, was impossible. Happily for the people of Liverpool, not a single philosopher could bring a single real germ to their fair and innocent city. Nevertheless, so effectually did the philosophers saturate the language with the term that in one instance a reader of a paper, having spoken of the exudation of gums from trees, the printer turned all the gums into germs straightway; and so ruthlessly did one gentleman, according

to his own account, destroy with carbolic acid a herd of germs engaged in the promulgation of scarlet fever, that he became sympathetic even for his victims, and called them the "poor germs" in such pitying tones for the treatment he had practised upon them that Mr. Colam might have apprehended him on his own confession for wholesale cruelty, extending not to tens or hundreds, but to millions, of the most helpless of animals inferior to man.

On the whole, the results of the discussions on the germ theory of disease were of the same value as those on spontaneous generation. We affirm distinctively that not one new thought was uttered, and that the absence of all appreciation of the physico-chemical side of the question of the origin of disease—except in the briefest of sentences by Dr. Rolleston, in his address—rendered the discussions so worthless and one-sided that they were forgotten as they were closed.

We have said that the one subject of discourse filled the meeting. To appearance, this was the case; but let us be fair, and state that, all the while the white foam was mainly visible to eye, there were waves of steady active motion beneath in all the Sections, which the volume of *Transactions* will exhibit better than the meeting, and which will be visible when the white foam made by the modern churning of the old sea shall have cleared away. In the Departments relating to real scientific Medicine, the number of steady workers was greater than ever, and the amount and character of work done is not merely creditable to the workers themselves, but honourable to the Profession they represent. For that positive virtue the Profession will be grateful, but not more so than for this negative virtue, that in the haste of argument and gulph of temptation, our representatives, as a rule, held aloof from general controversy on unknown questions of disease, and leaving these questions to the harmless speculations of amateurs, were bold enough to convey that they who were most informed were most ready to convey, "we don't know."

BABY-FARMING MURDER.

Margaret Waters has been declared guilty of the wilful murder of the infant Cowan, entrusted to her care and adoption. We hold the verdict to be a righteous one. Sentence of death has been pronounced, in accordance with the law which reserves this punishment for the crime which it regards as the deepest which can be committed, while it is that against which the moral sentiment of mankind recoils with the greatest horror. But is this a case in which the penalty ought to be exacted?

We are prepared to maintain the righteousness of the verdict. The indictment, denuded of technicalities, set forth—first, that the death of the child was the consequence of the conduct of the prisoner; and, secondly, that this conduct was pursued in accordance with a *system* under which she pursued the trade by which she made money, and which she knew could only result in the death of those subjected to it. The counsel who opened the case put forward the theory that "the real object of Waters in obtaining the possession of Cowan and the other infants found in her house was to get rid of them as speedily as possible, and that she used means to carry out that purpose, by which their death was either caused or accelerated." In his management of the prosecution he left it open for the defence to prove that this "getting rid" might have been intended to be effected by some other means than that which directly contemplated their speedy death. The Chief Baron pointed out that the direct intention to destroy the child's life was not an essential condition of the guilt of wilful murder, if it were clear that the woman knew that the line of conduct she pursued towards it would probably accomplish or accelerate its death. We cannot gather either from the speech of the judge or of Serjeant Ballantine that either believed that Waters behaved as she did towards the infant with the direct and distinct intention of destroying it. The idea seemed too horrible for either of them to entertain, or at any rate to express distinctly; nor do we think that the evidence adduced would support such hypothesis. Waters carried on a trade, that of "baby-farming," as it is now called, about which we know a good deal more now than we did a few years ago. It is one which is less simple than at first sight it appears to be, inasmuch as one branch of it consists in a sort of dealing in young infants—the baby-farmer being the person who supplies infants to those who require them, either for *bonâ fide* adoption or for any other less commendable purpose. Waters said that she had an expectation of getting Cowan off her hands quickly in this way, and it is clear that any such sale of an infant could only be effected while the child was in good health. Unfortunately for her, however, no proof of this or of a similar transaction in the case of any one of the forty infants which she admitted to have had in her possession at different times was offered by her counsel. The inference as to their fate, then, was obvious; and although the presiding judge would not permit the prosecution to submit to the jury any evidence showing a more direct probability as to the way in which these infants had been disposed of, there can be no doubt that the jury drew the conclusion which appears to us almost inevitable. In any criminal prosecution, and especially in a prosecution for wilful murder, it is essential to show that there was an object to be gained by the commission of the crime. In this instance gain was the object; and to allow of a profit from the trade in which Waters was engaged, it was absolutely necessary that the cost of the maintenance of the infants taken in charge should be reduced to the lowest amount. Moreover, if the children were not disposed of to some other party within a short time, the establishment being also limited, their death would be to the advantage of the prisoner. The system proved to be pursued towards them was calculated to terminate in death; and the experience of Waters must have taught her, if common sense did not, that no other issue was possible. Yet, regardless of consequences as certain to follow as night to succeed day, she pursued this system as a means of gain.

In Cowan's instance, although after a very few days the infant began to languish, she made no communication of the fact to its relatives; left it to grow worse for ten days before she sought Medical advice. It was the opinion of Dr. Puckle that Cowan, as well as the other infants, had been dosed with opium, and a bottle with laudanum in it was found in the room with them. Waters says she used it to rub on the child's chest. Anyhow, laudanum had clearly been used in some way to keep the children quiet. We quite concur in the view taken by Serjeant Ballantine when he said that the children were "treated in a way that precluded the possibility of their living to mature age. They were reduced to a state in which they could not take food, and were eventually subjected to the state of stupor which pervaded the whole establishment. First, they were huddled together—that was one step towards death. They had no fresh air—that was another step; no cleanliness, no sufficient food or attendance; and when there was added to all these the application of opium, a consideration of the mode in which the establishment was conducted by persons having abundant experience of children would lead to no other conclusion than that every one of the children immured there would die." Still, although the system pursued was such that Waters must have known it would ultimately be fatal; although even the probable death of the infants might have been taken into her calculation as an element in the amount of profit to be gathered: and although such unnatural cold-bloodedness in the pursuit of her trade horrifies the national conscience, and is equivalent to the moral guilt of wilful murder, we decline to believe that the woman had distinctly in her mind the obtaining of the early death either of Cowan or of the other babies when by her lying representations she obtained possession of them. She

did not entirely neglect the children, or completely starve them. She did for them, probably, as much as she thought she was bound to do in return for the sum of money she received with each, and as much as she thought she could do consistently with the end she had in view—namely, a profit upon her trade. If they died, so much the better for her—the dead child could be replaced, and the blame could be laid upon the deprivation of the mother's breast. Waters is probably a woman of—what we have heard more expressively than elegantly termed—"smudgy" morality, and one who took salve to her conscience in pretexts the validity of which it was inconvenient to inquire into too closely. Still, the guilt of wilful murder lies upon her none the less heavily, and we rejoice that the good sense of a common jury sufficed to see this, and to inspire a verdict which will fall like a bomb-shell into the camp of the baby-farmers. It is to be hoped that it will produce something more than a temporary consternation, and will open their eyes to the perilous nature of the miserable trade in which they are embarked.

But, for all this, we doubt whether it would be equally righteous to carry the sentence of death passed upon Waters into execution; for must it not be felt by us all that a share of blame must be borne by the nation at large? The baby-farm in Brixton is no isolated blot on the map of England. We all know it; Parliament knows it; our Ministry knows it; the fact has been notorious for years past; the system pursued by Waters is pursued by hundreds of other women, in all probability, within the circuit of these isles, and with precisely similar results. Infants, whose presence in the world is an inconvenience and a reproach, are every day quietly put out of it, precisely as Waters put the baby Cowan out of it; and the nation and Parliament have concurred in a policy of non-intervention. Now and then the exercise of the coroner's function has brought these places into view; but with an expression of public dissatisfaction, the curtain has been let fall, and other events—it may be, more horrible than the silent massacre of an illegitimate infant—have occupied the place in the national mind, which ought not to have been so quickly vacated. The trade, being permitted, has come to be regarded as permissible—permissible with all its necessary and unavoidable consequences. If the British Parliament, year after year, has allowed of such proceedings, is it any matter of astonishment that those who found them a means of gain should not have regarded them as illegal? There are plenty of persons whose code of morality is based, not upon abstract notions of what is right or what is wrong, but upon the direct prohibitions of human law. We can understand that Waters regarded her trade somewhat in this light; can we lay our hands on our hearts and say she had no excuse to offer for her error? Of one thing we are certain—with this verdict of "wilful murder" recorded, our legislature can no further delay dealing with a question which has too long been evaded. The country will not be satisfied if another session of Parliament passes without inaugurating some comprehensive scheme for dealing with those social questions which have now become prominent and pressing—bastardy, infanticide, and baby-farming.

RESECTION OF THE ELBOW- AND WRIST-JOINTS, IN CONSEQUENCE OF GUNSHOT INJURIES.

The experience of American Military Surgeons was that in gunshot injuries of the elbow-joint the mobility and consequent usefulness of the joint were greater after excision than when the arm had been saved without operation. It was also observed that, when no primary operation was performed, caries of the injured bones, or of the joint itself, ultimately demanded excision. The comparative difficulty of maintaining the elbow in an immovable state renders the treatment of injuries of this joint very liable to troublesome interruptions, and assists in explaining the fact that the mortality consequent on resection was, during the late American war, a fraction higher than that which followed amputation. This experience is opposed to that of the Schleswig-Holstein and Crimean campaigns. The great advantage, however, of preserving the forearm and hand entirely, overcame, among the American Surgeons, any objections to the former operation on account of the slightly greater mortality which attended it. It was also considered that its apparently more fatal tendency was to a great extent attributable to the fact that, during the earlier periods of the American war, the resections of the elbow-joint were, in a large proportion, only partial excisions, which are now established as being not only more hazardous during the subsequent stages of treatment, but also to be finally less successful as regards mobility than total resections. The natural hesitation as to the removal of uninjured structures therefore yielded to the bolder method which experience had proved to be at the same time the more judicious and safe.

The returns for three-fourths of the period of the late American war give 315 cases of excision of the elbow, and the results were ascertained in 286 cases; 62 terminated fatally, or 21·67 per cent., and in 16 amputation eventually became necessary.

In the Crimean war, twenty-two operations on the elbow-joint were performed by the English Surgeons. Five deaths occurred, two having been after secondary amputation; the total mortality was therefore 22·7 per cent. of the cases treated. This percentage slightly exceeded that of resection of the shoulder-joint, but in both instances resection afforded a much more favourable result as to mortality than amputation. Dr. Chenu states that only four cases of resection of the elbow-joint occurred in the French army during the Crimean war, and that all terminated fatally. Only two soldiers who had undergone this operation returned to this country from India, and in them the results were by no means satisfactory; in one there had also been a fracture of the humerus, and the arm was in an extended position, with very limited motion of the elbow-joint; in the other the arm hung powerless, like a flail, without strength to raise the forearm, but with some use of the thumb and fingers, while the forearm was supported by a sling. In both cases the operation had been by the H-shaped incision, and in the latter a very large extent of the bones of the elbow-joint must have been removed, including the tubercle of the radius and the attachment of the biceps.

Resection of the elbow was performed only once during the New Zealand war, the comparative infrequency of its performance being due to the fact that in most injuries of the elbow-joint the humerus was also extensively splintered, and amputation was necessary. The operation in this case was by the single straight incision, and was performed by Staff Surgeon-Major Home, C.B., V.C. The result was only partially satisfactory. The case is fully noticed by Professor Longmore, C.B., in the Army Medical Department Report for 1864. The arm and forearm were almost fixed at a very obtuse angle—about 160° when extended to the utmost, and in a state of extreme forced flexion the angle was about 140°. The arc of motion was therefore an angle of only 20°. The patient himself could only move the forearm through an arc of about 10°. The motions of the shoulder were somewhat limited, but those of the wrist-joint and fingers were well preserved. There was considerable wasting of the deltoid and other muscles surrounding the shoulder-joint, as also of those on the front and posterior aspects of the upper arm, but the muscles of the forearm were not perceptibly smaller than those of the other side. The patient suffered a good deal from pain in the injured joint, also from symptoms referable to irritation of the ulnar nerve, but the latter were probably attributable to inflammation caused by a fall which he had sustained on board ship, as he had not at first experienced them. These symptoms had nearly disappeared on the man's being discharged from the service.

It is the opinion of Stromeyer that, as regards the results, it is of no consequence whether the excision is performed in the first forty-eight hours or after the full development of suppuration. The single straight incision along the inner border of the olecranon, extending three inches above and three below that process, is the mode of operation recommended by Dr. R. M. Hodges, of the American army.(a) In case of inflammation or serious infiltration of parts, he says that a second short incision, at right angles to the first, may be carried outward, over the end of the olecranon, towards the external condyle. He claims for the straight incision the advantage of maintaining intact the connexion of the triceps tendon by its edges with the investing aponeurosis of the arm and forearm, thereby diminishing, to a certain extent, the loss of power following the unavoidable division of the tendon at its insertion into the olecranon. He admits that the transverse incision facilitates the operation, but maintains that it is better to extend the longitudinal incision than to lose the advantage of saving aponeurotic insertions of the triceps tendon. It is important to preserve the insertions of the biceps and brachialis anticus whenever possible. It should also be remembered, in dividing the radius and ulna low down, that the interosseous artery may be wounded. He says that four inches of bone above and four below the joint have several times been removed, a useful arm being regained; but he warns his readers that when the medullary cavity of the shaft is opened the chance of osteomyelitis is increased. In many instances the detachment of fragments and smoothing off the sharp processes of the fractured bones with bone-forceps will constitute the whole operation of excision. Care must of course be taken to avoid injury of the ulnar nerve; the soft parts in which it reposes, or the nerve itself, if released from its sheath, must be held to one side, and the knife kept constantly in contact with the bone. The latter advice reminds us of the apothegm of Mr. Cusack, of Dublin, on the subject of the anatomical risks to be encountered in excision of the superior maxilla—"D—— the anatomy; stick to the bone!" After the operation the arm should repose on a pillow, bent at an obtuse angle of 130° (that being a position of greater ease than a right angle), with cold-water dressing to the wound; subsequently poultices may be used. After the expiration of the second or third week, the rectangular splint may be applied; and this, if possible, should be one which will permit of a variation from day to day of the position in which the arm is to be flexed. Passive motion should be commenced at the earliest moment the wound and the patient's endurance will permit, and be carefully and frequently practised. Dr. Hamilton, of the American Army, in his treatise on Military Surgery, recommends the quadrilateral flaps, or incisions made in the form of the letter H, as the most convenient. The two flaps being dissected upwards and downwards expose all the parts to which the saw is to be applied. The upper flap includes the lower end of the triceps, severed from its attachments to the olecranon process. Dr. Hamilton recommends the chain-saw for section of the bones; the humerus should be divided from its anterior to its posterior surface, care being taken not to injure the ulnar nerve or brachial artery; the radius should be cut with the same instrument, if possible, above the insertion of the biceps. If the section of the ulna is to be below the coronoid process, the chain-saw is also to be used; but if the olecranon alone is to be removed, the section will be made more easily by the common saw, assisted by the bone-forceps or the mallet and chisel. He observes that it is desirable to remove nothing more than the olecranon process, or at least to make the section of the bone above the insertion of the brachialis anticus, in order to preserve the power of flexion. He considers the insertion of the brachialis anticus to be on the base of the coronoid process, and not upon its apex or summit, as incorrectly stated by some Surgeons and anatomists. Notwithstanding that he urges the preservation of the ulnar nerve, he mentions a case which suggests the propriety of dividing—when it has already suffered much injury; and says that, in a recent instance of exsection of the elbow-joint at the Bellevue Hospital, finding the nerve exceedingly painful, and believing it to have suffered a violent contusion, he severed it. As soon as it was fully exposed, the pain at once ceased and the case appeared likely to progress satisfactorily.

The wrist was excised three times during the Crimean war, with one fatal result. Partial resection was performed thirty-five times during the American war. In twenty-seven, the ends of the radius or ulna, or of both, were removed, and, in some instances, shattered fragments of the upper row of carpal bones. In eight, the greater part of the carpus was excised. Three deaths took place—one from pyæmia and two from irritative fever and profuse suppuration. The mortality was, therefore, 8·5 per cent. Twenty-six cases are reported as having recovered, and in two amputation of the forearm ultimately became necessary. The reports are unsatisfactory in relation to the amount of mobility left in the hand; but it is hoped, from the success which has attended Professor Lister's method of excising the entire wrist-joint for caries, that the same operation may be hereafter successfully adopted in cases of gunshot wound of the wrist.(b)

Dr. Hodges says that of all the principal excisions performed for disease, that of the wrist-joint is the one on which least reliance is placed; and he infers, therefore, that in military Surgery it would furnish still less favourable results. The first law of excisions can rarely be fulfilled—viz., that there shall be a free exposure or destruction of the synovial cavity of the joint, as well as a partial or complete removal of the articular extremities of the bones. He, however, considers that there is, perhaps, sufficient precedent to authorise renewed trials in cases not accompanied by too great laceration of the soft parts.

Professor Longmore remarks that in gunshot wounds of the wrist-joint there is generally so much injury to the superficial structures that their treatment by resection can hardly be expected to produce satisfactory results. The destruction of the flexor and extensor tendons generally renders the hand, when preserved, a painful incumbrance to its possessor. This does not apply to partial amputations; the preservation of even a thumb or finger, so long as the power of flexion and extension is retained, is a most important consideration. As a secondary operation, in cases of gunshot wound where the superficial structures happen to have escaped, there is no reason why resection of the wrist should not be as successful as it has been proved to be in cases of disease. We understand that such an operation has, in a few instances, lately been performed at the Royal Victoria Hospital, Netley, by Surgeon-Major Mackinnon, C.B., with favourable results.

(a) Military Medical and Surgical Essays, prepared for the United States Sanitary Commission. Edited by William A. Hammond, M.D., Surgeon-General U.S. Army, etc. Philadelphia: J. B. Lippincott and Co. 1864.

(b) Circular No. 6. By Surgeon-General U.S. Army.

THE WEEK.

TOPICS OF THE DAY.

The report which we noticed last week, that the Government had determined to increase the number of Medical Inspectors under the Privy Council, turns out to be at least premature. The final report of the Sanitary Commission will not certainly be published until after Christmas, and we suppose that a measure based upon it will be submitted to the Legislature. As no measure will be a satisfactory one which does not provide for due Medical supervision, we can only hope that the report which went the round of the newspapers last week may prove to have been prophetic.

Pauperism continues to increase in England. The monthly return of the Poor-law Board shows in the number of persons who were receiving relief at the end of July a general increase

of about one per cent. over the number of July, 1869. In Wales and in the north-western division there had been a decrease, but this was more than counterbalanced by the increase in London and the rest of the kingdom. The steady addition to the unproductive population and to the burthens of the ratepayers demands the attention of Parliament. As we have recently shown in this journal, there are strong reasons for believing that in no small degree the pauper population of this country are being increased by our inefficient Poor-law Medical service—inefficient because inadequately paid and overworked. We have shown that the introduction of a comparatively adequate Medical Poor-law service in Ireland has been signalised by a marvellous decrease in the mortality of the population, and by a poor-rate far below that of England and Wales. We disclaim any intention of imputing the whole of the hygienic gains of Ireland to the introduction of the dispensary system, but we are justified in maintaining that this has been one of the principal causes that have produced them. It requires no insight into the conditions of life to know that every adult artisan or labourer who dies from curable or preventible disease, or who is laid by for an unnecessarily long time by a curable disease, if he be without realised property, must increase the burthens of the society in which he has lived, and if, in case of death, he leaves a widow and children behind him, must increase those burthens very largely. This is the principle on which we again urge our Medical brethren to support the attempt which we hope will be made in the next session of Parliament to place the Poor-law service of the country on a new footing. Facts which prove its necessity are of daily occurrence, and only require to be recorded, when a mass of evidence would be collected which would teach the British public and the House of Commons that one of the best modes of dealing with pauperism is to provide for the lowest stratum of society adequate assistance in regaining health when lost and in keeping it when it has been regained.

It is rarely that any of Her Majesty's judges indulge in censorious and unfounded charges against any section of society—charges which, unless they can be proved, must have the effect of lowering the judge's office in public estimation and of diminishing confidence in the *dicta* of the person who utters them. We say it is rare for the judges to commit themselves in this way; in fact, we do not recollect an instance of one of the senior judges thus using the licence the bench confers. Mr. Commissioner Kerr, however, who presides in the fourth court of the Central Criminal Court, is recently reported to have brought a sweeping charge against the Medical Profession, which we are bound to notice. It is simply this, that the Medical Profession for the sake of fees are in the habit of providing business for the courts of law. In a case in which two boys were charged with manslaughter on a coroner's inquisition, the Commisssioner is reported to have said—

"The case had been sent to the sessions by one of the coroners. An immense quantity of business was always done when the payment was by way of fees, as in the instances of coroners and Medical men. The present was called a reformed Parliament, and it went into questions connected with Church and State, while 500,000 blots in the civil administration of affairs required to be remedied."

We agree with the Commissioner that 500,000 blots in the civil administration of affairs require to be remedied. Amongst this large number of blots, we should like to know how many have been made by legal ink? There is something intensely comical in hearing a lawyer charge the Medical Profession with bringing business into the law courts for the sake of fees!

Dr. McCormac, writing from Sedan, on September 16, brings the following specific charges against the Prussian military authorities:—

"On two different occasions were our *infirmiers* taken from us, it is said on Prussian authority, to send them prisoners into Prussia. It requires no words to make one conversant with Hospital arrangements understand what a terrible step it was to take, both for patients and doctors. Another thing, too, was done at which humanity rebels: 150 sick and wounded, and some dying, were thrust upon us from the temporary Hospital of the College, in which the Prussians desired to place their own wounded. I have heard from others things sufficiently horrible, but of these two I have personal cognisance, and therefore mention them."

Dr. Hermann Weber, writing like a loyal German, defend his countrymen from the charge of inhumanity, and whilst he does not deny Dr. McCormac's facts, apologises for them by pleading the necessities of warfare, and urges that French prisoners whom he has seen and talked with acknowledged themselves well fed. Some other writers in the *Times* bear similar testimony. Their letters, however, although they may perhaps to some degree excuse, do not in the least invalidate Dr. McCormac's facts. It seems undoubtedly true that the Prussians twice removed the *infirmiers* from the Anglo-American ambulance, in order to send them prisoners to Prussia—an act hardly in consonance with the spirit of the Geneva Convention—and removed 150 wounded and dying Frenchmen from a Hospita to make room for their own wounded. This may have been necessary—on that point we offer no opinion—but it has, to say the least, a revolting aspect. Dr. McCormac's letter is so interesting that we subjoin a few extracts:—

"About 9 or 10 they began firing straight into Sedan from the heights opposite, where I have been told there were 150 guns posted. The noise of the reports seemed sometimes to become almost continuous, so incessant were the discharges. We saw the puffs from the gun-mouth, then came shortly after the whizzing, as if in our very ears, of the shells. The town was soon on fire in a dozen places, and just in front of us, close to the large civil Hospital of Sedan, a large manufactory of cloth made an immense blaze. At first I thought the Hospital itself was on fire. For six hours this veritable *feu d'enfer* never abated. Our house was struck often by the shells. The *caserne* is said to be bomb-proof, but even if it be there is nothing to prevent the shells raking the wards from window to window, as these were in the direct line of fire. One of our *infirmiers* was literally torn into shreds, and another grievously wounded just at the door. I cannot describe the feeling of relief we experienced when, about 4 o'clock, the fire slackened, and was directed elsewhere, shortly after to terminate altogether. Early in the morning the wounded began to arrive, not only those of the 1st, but those of the day before, and all that day till late in the night I was busy performing capital operations. I must confess the practice of Surgery under fire is anything but agreeable. Yet I was delighted I had it to do. It relieved one's mind from the distressing tension not altogether unnatural to one obliged to sit with folded hands, expecting any moment a bursting bomb in our midst. The next day there was no rest for us—the town had capitulated, but the wounded flowed in in such numbers that we were almost immediately full, and more than full, of the sad results of war. More operations that day, and next, and every day since, till one positively sickened at the sight of so much gore. I did all the operations myself, as Dr. Sims did not wish to perform any. One thing I may here say, that our attempts at conservative Surgery when the bone had been injured, although that injury might appear slight outwardly, have not been satisfactory. These Prussian bullets, whenever they touch a bone, splinter it in every direction, and our experience here proves that when the bone is struck at all it is generally so much injured as to necessitate immediate interference by resection or amputation. The extent of the smashing of the bone caused by these new weapons is prodigious. Certainly the number of operations I have performed is enough for any lifetime. I have preserved a note of every case which has been admitted, which I trust to turn to good account at some future time. . . . I need not describe any of our wounded further than to say the course some of the bullets have taken without killing is inconceivable. Round a chest, through the chest, across the pelvis, round joints, and through the neck and face in particular, these balls appear to traverse the body, very often taking as much care as an experienced anatomist to avoid vital parts which appear to be directly in their *trajet*. It must not be forgotten that we see only those cases where the balls are a little respectful; the rest, and it is a large remainder, lie dead upon the battle-field. For the first week we had rather a hard

time—we were short-handed for such a number of wounded. But we got most valuable assistance from our military *comptable*, M. Billotte, military *sous-intendant*. Dr. Webb, who had kindly consented to act as our own *comptable*, worked constantly and well, and was of great service to us. I was very anxious for some days as to the matter of the patients and the probable supervention of an epidemic. . . . We are the object of admiration and envy of the neighbourhood. We receive daily visits from the Surgeons of the French and Belgian ambulances in and near Sedan; also from some of the German Surgeons. They are all surprised and pleased to find our organisation so complete. . . . Of one thing I may boast, in conclusion, we have had no epidemic, no erysipelas, no Hospital gangrene, no pyæmia, and but a single case of secondary hæmorrhage, after amputation operations. Night and day, fair weather and foul, the large windows of the rooms are wide open, with the wind of heaven blowing from end to end. You cannot imagine with what horror and disgust a French Intendant-General beheld our system of ventilation: he retired shrugging his shoulders, and exclaiming we were going to kill our patients with currents of air. But to this and our copious use of carbolic acid do we owe our immunity from Hospitalism."

Dr. Frank, writing from Bazeilles on the 26th, pays a high tribute to the excellence of the work done by the English and American Surgeons before Sedan. Readers of *The Medical Times and Gazette* already know the character and dangers of Dr. Frank's own services at Balan, of which he himself writes so modestly:—

"At Sedan our ambulance is now in charge of 350 cases. The labour of the Balan division, accidentally formed by my presence here during the battle, have been insignificant compared with the work done at Sedan, where a large staff, present from the beginning, made a more careful examination of the cases possibly, and enabled primary operations to be performed. Dr. McCormac, a most excellent Surgeon and brilliant operator, has crowned himself with glory there. Our American brothers have worked with us in most absolute harmony, and I am sure you must be glad that the fusion with them as been so successful for good."

The paper of most interest to the Medical Profession read at the recent Social Science Congress at Newcastle, was Dr. Dalrymple's able defence of the principles on which his Bill, legislating for habitual drunkards, by providing asylums for them, was founded. No one knows better than members of our Profession that, to doubt the benefits which would accrue from protecting society from the habitual drunkard, and the habitual drunkard from himself, is to ignore facts which lie on the surface of English life. Whether the difficulties in the way of such protection are insurmountable is another question. The experience of America, and we may add Scotland, might lead us to argue that they are not. But whether this prove to be so or not, we do not think that the attention of the Legislature can be directed to a subject of greater social importance, and we are glad that a Medical Member of Parliament has introduced it. From Dr. Dalrymple's concluding remarks at Newcastle, we find that he by no means despairs of the cause which he has adopted. He is content to wait. It may be that his measure will never pass, but he is in full confidence that some Bill embodying its principles will; and he is content to have laid a foundation on which some future social reformer shall build.

Dr. Richardson has issued a prospectus of lectures which he intends to deliver during the coming winter session. Their subject is to be the study of therapeutics by experiment, and the advancement of practical therapeutical science by basing it on a precise knowledge of the physical action of remedies. The first lecture will include a notice of some new medicinal agents—nitrite of amyl, potassium and sodium ethylate, and triethylic ether. The lectures will be delivered at 12, Hinde-street, on the first Tuesday of every month from October to March. We think Dr. Richardson could not have chosen a happier subject, or one more likely to sustain the popularity of his lectures.

It is reported that a child has recently been killed at Kilmarnock by swallowing some of Locock's pulmonic wafers. Medical help was obtained, but it was of no avail, and the child died in twelve hours. The basis of these wafers is probably some form of opiate; but the public are not generally aware that they are so dangerous as this case would seem to prove them to be.

The Prussians give a special military distinction to their army Surgeons. It is the Iron Cross, but with a white riband and black border as a difference.

THE NATIONAL SOCIETY'S AMBULANCE.

We understand that, in compliance with the application of the National Society for Aid to the Sick and Wounded in War, the Secretary of State for War has sanctioned the organisation and equipment of an ambulance for 200 sick, on the full-service scale, to be despatched immediately to the seat of war, and that active measures are now being taken by the Director-General of the Army Medical Department to have every requirement fulfilled, so that the ambulance may be thoroughly efficient, and a credit to the Department and to the nation. The equipment and all contingent charges will be at the expense of the Society. It is expected that Professor Longmore, C.B., will superintend the equipment in this country, and will accompany the ambulance as Medical Director, and that he will have under his direction twelve Medical officers of all ranks. The candidates for selection for this duty must possess high Professional qualifications, and must also be able to speak either French or German fluently. The list of Medical officers has not yet been completed, but from the high standing of many of those who are said to have offered their services, we have no doubt that the Army Medical Department will be creditably represented.

IMPROVEMENTS AT CHARING-CROSS HOSPITAL.

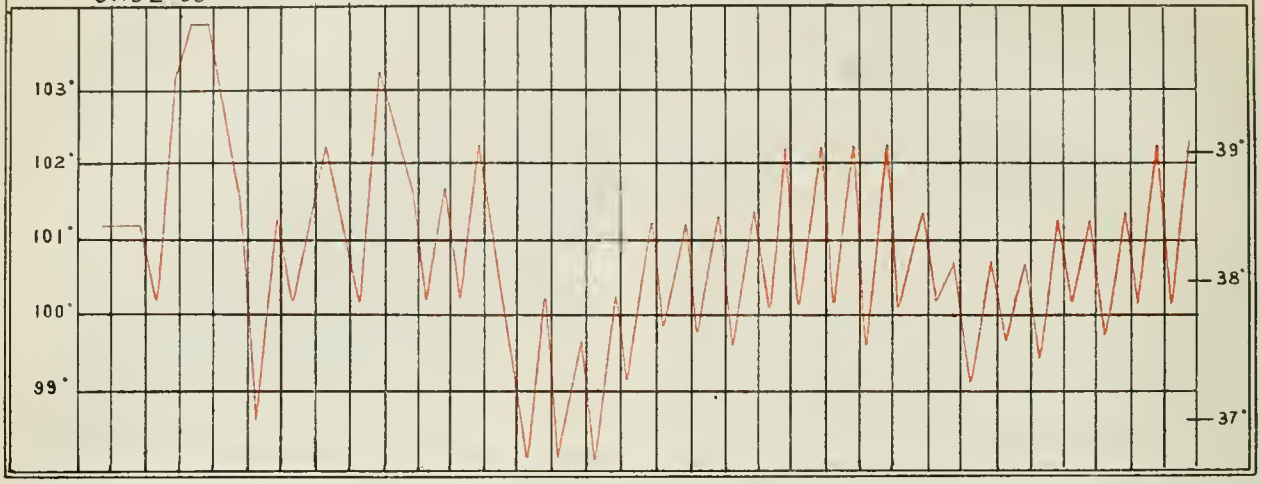
The recent acquisition of some property adjoining Charing-cross Hospital has enabled the authorities to effect some very important improvements in the Hospital and school. The out-patient department especially will be improved, and the number of beds increased. A portion of the newly-acquired buildings will be devoted to a library, a librarian's room, student's rooms, etc. The former museum is about to be enlarged, and converted into a dissecting-room, furnished with every appliance, and walled round with slate for diagrams and such-like. On a vacant space of ground, an elegant and commodious chemical laboratory has been constructed, with a balance and apparatus room adjoining. The museum has been transferred to new premises, and has been arranged so as to be used as a class-room when required. The post-mortem room has been enlarged, and its lighting greatly improved. The result is an exceedingly compact, and what will be a very convenient school.

FEVER AT LIVERPOOL.

The number of fever patients under treatment at the three parish institutions of Liverpool on the three Saturdays, September 10, 17, and 24, were 910, 1006, and 1116 respectively. To provide accommodation for the continued increase, it has been suggested to build an extra shed in Ashfield-street, and to use the workhouse church as a convalescent institution, so as to admit of fever patients being treated in the wards at present devoted to convalescents. Neither scheme has as yet, however, been sanctioned by the select vestry. Dr. Kirkpatrick, one of the most active of the Medical officers, is unhappily at present suffering from relapsing fever, contracted during the discharge of his duties at Kirkdale. The death-rate of Liverpool has again risen very high, having reached 32·6 per 1000 of the population last week.

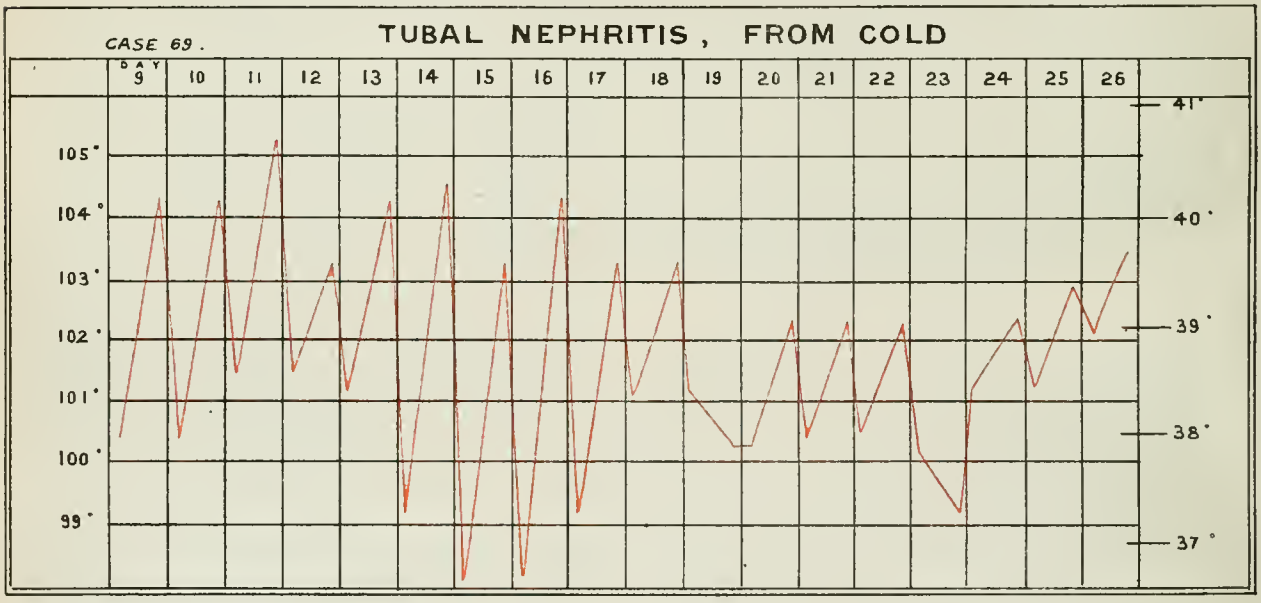
RENAL ABSCESS

CASE 68



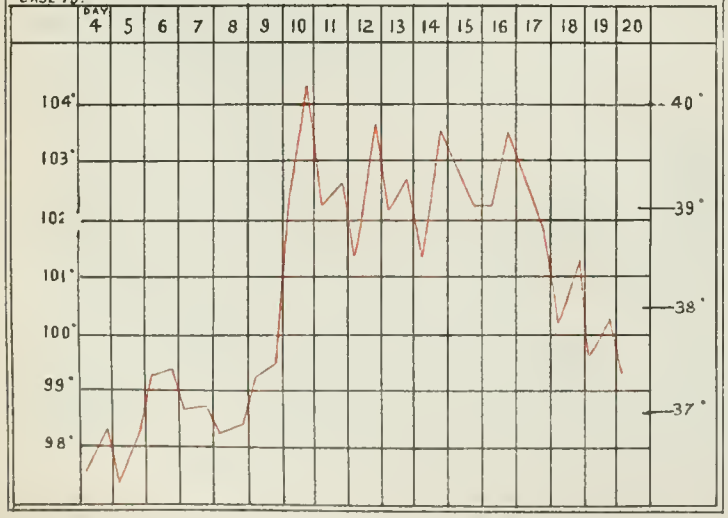
TUBAL NEPHRITIS, FROM COLD

CASE 69.



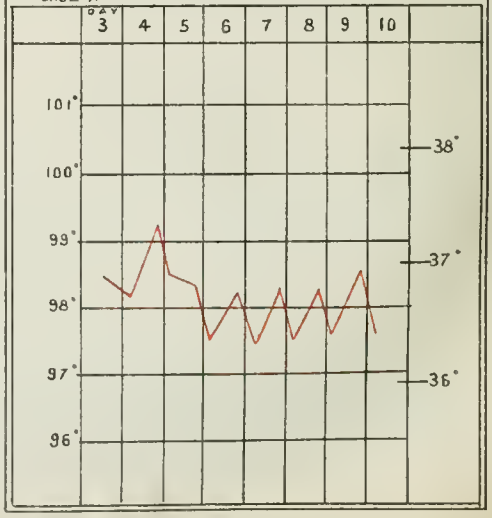
SCARL: DROPSY WITH PNEUMONIA

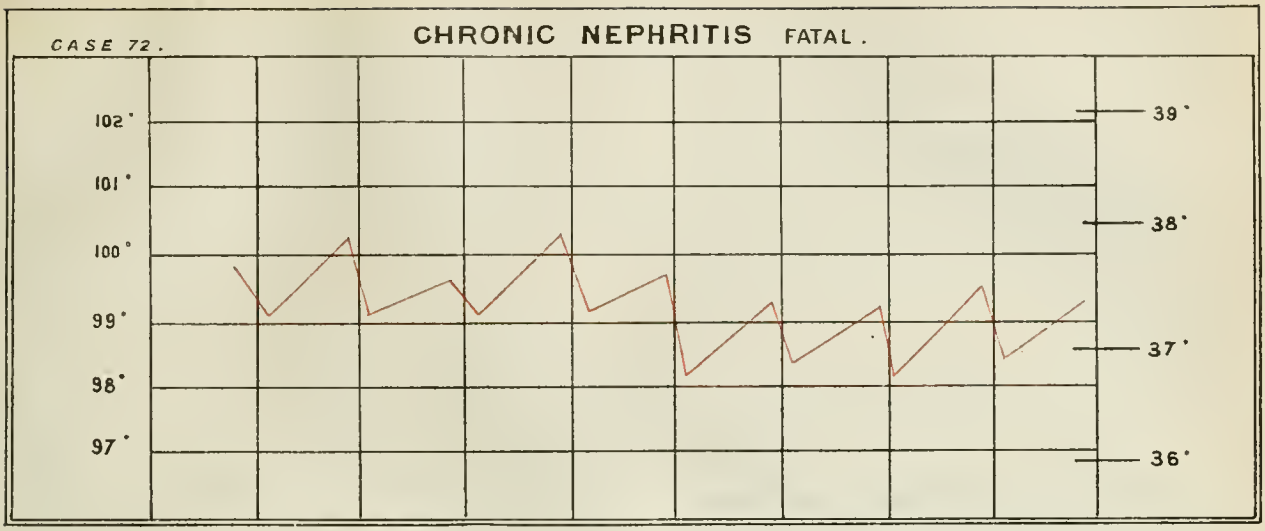
CASE 70

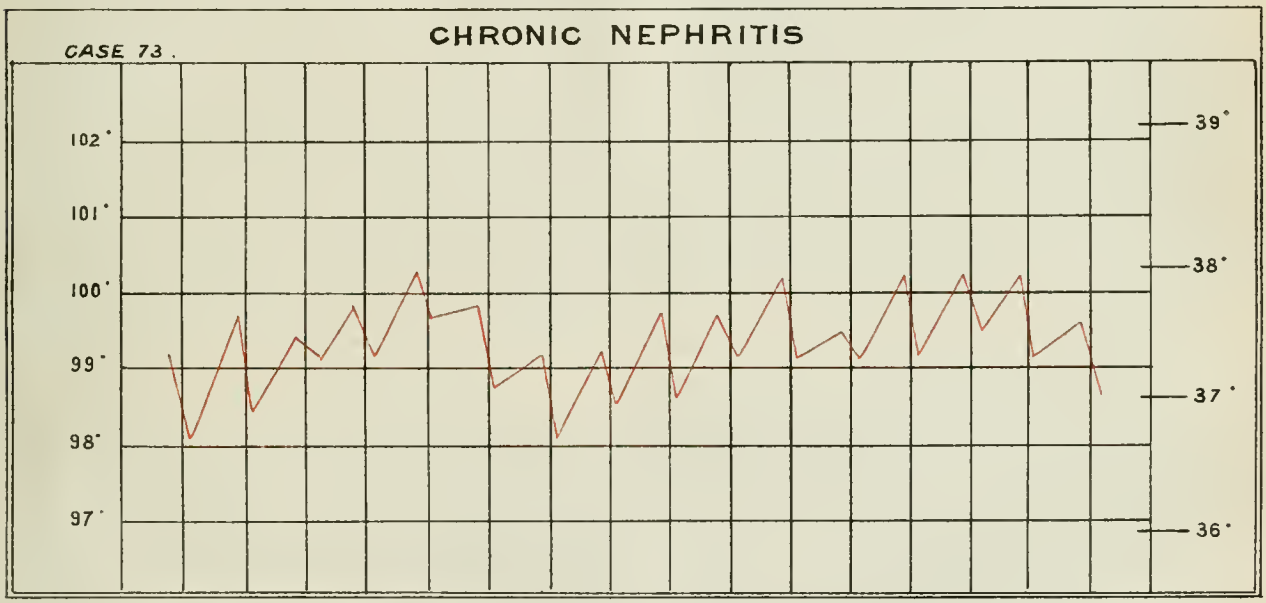


SCARL: DROPSY

CASE 71




CASE 72.
CHRONIC NEPHRITIS FATAL.
102°
101°
100°
99°
98°
97°
39°
38°
37°
36°


CASE 73.
CHRONIC NEPHRITIS
102°
101°
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99°
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97°
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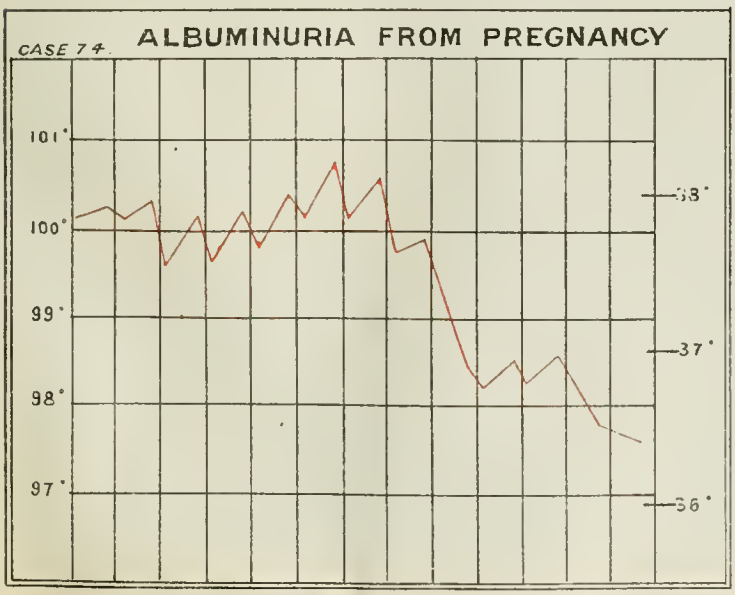
CASE 74.
ALBUMINURIA FROM PREGNANCY
101°
100°
99°
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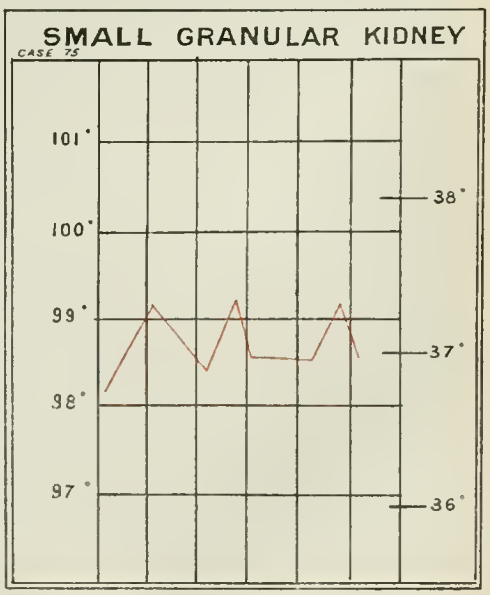
97°
38°
37°
36°


CASE 75
SMALL GRANULAR KIDNEY
101°
100°
99°
98°
97°
38°
37°
36°

THE "PALL-MALL GAZETTE" LUNATIC.

It is not often that our clever contemporary is taken silly, but at last it seems to have succumbed to the influence of the season in a series of articles, which have been rarely parallelled in the annals of ignorance. Some individual—it is impossible he can be a Medical man—has undertaken to enlighten the world on the relations of the Medical Profession and our lunacy system. He begins with the egregious blunder that all Hospital men in London are operating Surgeons, who have no time or inclination for the study of mental and nervous diseases, and immediately proposes that somebody in Manchester, Leeds, Liverpool, or Edinburgh should devote himself to this walk in life, and that there should be a special mad ward in every Hospital. Utterly ignorant that lectures on insanity are the rule in almost every London school, he singles out, as the type of teaching in this division of Medical science, the attendance on the practice of Dr. Millar, of Bethnal House Asylum, permitted to the students of the London Hospital. He does not know of such men as Sankey, Blandford, Williams, Hunt, and others, now lecturing on their own peculiar subject. He recommends the authorities of St. Luke's to take pupils, which they have been doing for many and many a day; he commends Bedlam for beginning to take internes, when those who have held this office in days gone by now occupy important posts elsewhere. He talks of the Asylum at Fort Pitt, Chatham, which has been abolished for months. Most touchingly he alludes to the several improvements which have taken place since this series of articles began. As a sample he cites the authorities of Wakefield Asylum advertising for a clinical clerk, not knowing that such an appointment has existed for years. We have no doubt this Rip Van Winkle waking up one morning will discover what has already been done, and will ascribe it to the marvellous effects of these extraordinary articles. He greatly reminds us of the fly perched on the chariot wheel, who, filled with self-complacency, could not help exclaiming, "See what a dust we create!"

FROM ABROAD.—THE WAR IN FRANCE—PROTECTION AGAINST SMALL-POX IN PRUSSIA—QUININE IN SEPTICÆMIA.

As our supply of French Medical journals is now entirely cut off, we have access to no sources of information concerning those circumstances of the war which are most interesting to our readers beyond those contained in the political journals and in those accessible to them. As to the Berlin weekly Medical journals, the rarity of the notices concerning the war contained in them is quite surprising, and amidst their usual staple of long-winded dissertations and clinical communications might easily escape notice altogether. From them, however, we learn that the members of our Profession have suffered severely from death and wounds taking place among their relatives during the various engagements; and they complain very bitterly that the number of these has been sensibly augmented by the frequent violation of the Geneva Convention on the part of the French. In this matter both sides are recriminating each other, and probably without reason as far as intentional want of faith is concerned; but the tone of these and of the most recent French communications that we have seen too plainly prove that with the prolongation of the contest envenomed feeling is rapidly gaining ground, and rendering reconciliation more and more difficult, while the recognition of loyalty and fair play on the part of antagonists, which has so often honoured even bitter contests, has almost become to be considered a criminal weakness. One of the arguments employed for urging on European, and especially English, armed interference, and that by no less a person than M. Ernest Renan, will somewhat surprise our readers. In the last number of the *Révue des Deux Mondes*, after admitting the faults of which the French have been guilty in bringing on this terrible scourge, and pointing out how far the conduct of the Prussians has contributed to the rupture, he comes to consider the remedy, which he believes alone lies in the peremptory interference of united Europe; and the passage which we regard as singular, as regards our own motives for joining in such an effort, is as follows:—

"This power is Europe. Europe has a major interest that neither of the two nations shall be too victorious or too much subdued. The disappearance of France from among the number of the great powers would be the end of the European equilibrium. England, I venture to say, would, on the day when such an event took place, find the conditions of her existence entirely changed. France is one of the conditions necessary for the prosperity of England. England, following the great law which provides that the primitive race of a country shall, in the long run, dominate over all its invaders, *is becoming every day more Celtic and less Germanic*. In the great struggle of races she is with us, and the alliance of France and England is founded for ages. Let England direct her thoughts towards the United States, Constantinople, and India, and she will see that she has need of France, and of a strong France."

Again we may notice the admirable exertions being made in Belgium for the due fulfilment of the heavy charge it has undertaken of providing, at its own cost, for the care of the wounded belligerents. Notwithstanding the soreness of some of the too sensitive German journalists, who complain that preferences have been given to the French, no cases of want of due attention have been brought forward on their part. That the sympathies of the nation should be with the sufferers of the country that speaks their own language, and of whose every habit and manner they are but the reflection, is natural enough, and highly laudable, too, in face of the diplomatic revelations of the intentions of those in power; but that Belgium, both in a large supply of well appointed ambulances and a cordial acceptance of so heavy a responsibility as the charge of thousands of wounded, will earn the admiration and gratitude of all well-thinking persons we can have no doubt. We believe it is admitted that the Dutch and Belgian ambulances on the field of battle are the most perfect examples of effective organisation yet met with during this bloody contest. Not only have the Government and municipalities been active in all this good work, but individuals on every side are sending in their intimations of a desire to have the wounded consigned to them. Not only have Medical needs been provided for, but immense consignments of bread have been forwarded from Brussels. Inspector-General Vleminckx, the first Medical military authority in Belgium, is supervising the ambulances at Bouillon.

Geh.-Med. Rath. Müller, the Director of Vaccine at Berlin, calls attention to the danger of the spread of small-pox during the present war. German troops are entering France in large numbers, and for months past there have been 200 deaths weekly in Paris from this cause. All the troops who have entered France have been revaccinated. The recruits for the reserve battalions are also revaccinated; but those Medical officers who had neglected to supply themselves with the glycerine-lymph (*i.e.*, virus dissolved in glycerine, now much employed in the army,) have had to contend with many difficulties and delays. How efficacious this is Dr. Müller has had a recent opportunity of proving, having recently revaccinated 2200 of a reserve battalion with glycerine-lymph, prepared in part last year and in part in the spring of the present year. At the present time, however, the danger lies in the small-pox slipping into Prussia by means of some of the numerous prisoners who are daily arriving; and Dr. Müller strongly recommends all Practitioners to lay in large stocks of glycerined lymph, as this is the only means which they can rely upon in the event of their being called upon to vaccinate and revaccinate large numbers, in order to prevent the spreading of the disease.

Professor Binz, of Bonn, has addressed a circular to the Medical officers of military Hospitals calling their attention to the importance of the external use of carbolic acid and the

internal employment of quinine in combating the septicæmic condition of the wounded. In respect to quinine, he observes there are circumstances which a prolonged series of experiments have convinced him are of high importance to be borne in mind:—1. Its employment must be commenced at the very beginning of the pyæmic condition. An exact observation of the condition of the wound, and thermometrical measurements made twice a day will point this out; and in doubtful cases the quinine may be given in a preventive view without any ill effects. 2. The quinine should be continued for some days after the effects of the putrid poison seem to have been subdued. 3. In bad wounds small doses are of no avail, anything less than 30 grains in the twenty-four hours being useless. 4. It should never be given in the pulverulent form, as this irritates the stomach, impeding absorption. It should be dissolved by means of a few drops of acid. 5. When from any cause it cannot be given by the mouth, it may be administered as an enema, increasing the dose by a fourth. 6. The influence of the quinine is best obtained by administering it during the period of the spontaneous diminution of the febrile action. Large doses should therefore be given in the evening and very early in the morning. The condition of the heart must be constantly watched, inasmuch as large doses may become dangerous by paralysing its motory apparatus. The simultaneous use of stimuli, especially wine and camphor, acts usefully in aid of the antiseptic power, and in prevention of the poisonous effects of the alkaloid. 7. Every care must be taken that the quinine be free of admixture with cinchonin, which is useless, and of all impurities. Professor Binz is convinced that, if these rules be observed, great success will attend the use of quinine in this complication of wounds.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. VII.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

Trial of Cooper v. Wakley—Popular Excitement—Evidence—Addresses—Summing-up and Verdict.

Seldom or never before had the Court of Queen's Bench at Westminster presented so animated an appearance as it did on the morning of Friday, December 12, 1828. Long before the doors were opened a large crowd was collected, and the Court was densely filled by the first rush. The struggle to gain admittance had been so great that some of the barristers had lost their wigs, others had theirs half off, coats were rent, and parts of them torn away. The counsel, jury, and witnesses had the utmost difficulty to obtain their seats. At a few minutes past nine the defendant appeared on the floor of the Court, attended by his counsel, Mr. Brougham and Mr. Fitzroy Kelly. The plaintiff was represented by Sir James Scarlett, Mr. F. Pollock, Mr. Scarlett, and Mr. Platt. The jury, which was special, could not reach their box until a quarter to ten o'clock, and then only five or six answered to their names. A *tales* was, therefore, prayed by Sir James, and the panel was filled up to the required number by common jurymen. In consequence of the very crowded state of the Court, it was nearly half-past ten before they were sworn. The defendant had laid on the floor of the Court a cast of a child in the position for lithotomy, as well as instruments, etc.; but in consequence of the crowded state of the Court, he could not be accommodated with a table for their exhibition. After a time, however, a table was supplied. The Court presented a remarkable appearance on the opening of the trial. Before the entrance of the judge there was a busy and continuous murmur; this was hushed the moment the venerable Chief-Justice entered the Court, and, having bowed to the bar, he took his seat amidst profound silence. The seats were filled by Hospital Surgeons and eminent Practitioners, and a large body of students. Of course, the defendant, having elected to defend himself, was the chief object of attraction. Thomas Wakley was then in the zenith of his physical, if not of his mental, power. His fine presence, the self-possession he displayed from the first, and the consummate ability with which he conducted the case, soon enlisted popular feeling in his favour. The judge, too, showed him remarkable indulgence, and felt, no doubt, some compassion for a young man doing a foolhardy thing, as it was generally considered by all present, in putting out his "feeble strength" against the greatest legal advocate of the day—David against Goliah. But it soon became evident that the match was not so unequal as was expected, and the first stone from the sling took damaging effect on the great lawyer. To this I shall refer immediately. The pleadings were opened by Mr. Scarlett, and the declaration, which was of considerable length, embodied the report of the operation and a leading article which had appeared in the *Lancet*, and which, in fact, constituted the libel. The damages were laid at £2000. The defendant justified, and his pleas, which were of considerable length, and drawn by Mr. Kelly, were then read. It is unnecessary here to go into detail respecting these pleas. They amounted, in fact, to a justification of the libel, and upon this ground mainly the defendant claimed the right to begin. No such right had ever before been demanded in a case of libel, and it was against the opinion of his counsel that the defendant on this occasion would succeed. He, however, quoted certain cases of alleged trespass in which the defendants were allowed to begin, and these being submitted to the judge, he, after consulting with some of his brethren in the other courts, decided in favour of the defendant's application, the Chief Justice remarking, "The view I take of it is this, that it is incumbent on the defendant to make out the truth of his allegations by evidence on his part, and that until he has done that the plaintiff is not called upon to give any evidence on the subject." This was the first serious blow struck at the great lawyer, and this was the annoyance to which I referred in a former article as influencing Sir James Scarlett's temper throughout the entire proceeding. Mr. Wakley then addressed the jury, and called several witnesses in support of his allegations in the alleged libel. It would be tedious and unprofitable now to enter at any great length into the evidence on either side, but it may be stated that the defendant called nine witnesses—eight in support of the accuracy of the report of the operation, and one, Mr. Harrison, the Treasurer of Guy's Hospital, in support of one of the pleas advanced for the defence: that Mr. Bransby Cooper had been elected "Surgeon to Guy's Hospital because he was the nephew of Sir Astley Cooper." The two most important witnesses as to the accuracy of the report of the case in the *Lancet* were Mr. Alderman Partridge, of Colchester, and Mr. James Lambert, the reporter of the case. It must be admitted, I think, that the evidence of Mr. Partridge was the only evidence that was of great service to the defendant. It was given in a manner at once so clear and straightforward that it carried conviction to the minds of his hearers that he was an able, truthful, and disinterested witness. Even in his cross-examination by Sir James Scarlet, he displayed such a self-command, and such an unequivocal position, that he nonplussed the great advocate. Here are two or three questions and answers:—

"Whereabouts did you stand?"

"When this operation was performed?"

"Yes."

"Why, I had a chair to sit immediately behind Mr. Cooper."

"Very well; you sat behind him; did you know him?"

"I never saw him before that day."

"Now, sir, I come to ask one or two more questions, and then I shall have done. I think you stated to my lord you had no doubt the first incision was made into the bladder?"

"I had no doubt, and have no doubt now."

"Do you believe that any person of competent judgment who witnessed the operation could doubt that?"

"As I cannot doubt it myself, I do not know how anybody else can." (Laughter.)

"That is sufficient. Do you believe that in the first incision—I am only speaking of the first—the point of the knife did find its way into the groove of the staff?"

"I have before said, I am convinced that it did."

"Now, sir, I am desired to ask you this question; you say you have read this report in the *Lancet*?"

"Yes, sir."

"When did you read it last?"

"I take the work weekly, and I read it every week as it comes."

"Are you a correspondent of the *Lancet*?"

"I told you, just now, that I never saw the editor before, and I never corresponded with him."

"It is no reproach to you if you had, as they are all men of talent that must correspond with him."

"You are very kind, sir."

Mr. Lambert gave his evidence readily and clear enough when examined by the defendant in support of his case, and swore to the entire accuracy of his report; but, on his cross-examination, he hesitated, fenced with questions, and was obliged to admit some facts which told sadly against him. He afterwards attempted, in another place, to which we shall refer hereafter, to excuse himself, on the ground that he was nervous, and had just before entering the witness-box had a communication made to him respecting a witness who preceded him, which greatly annoyed and distressed him. But, admitting all this, he certainly cut a very sorry figure, and was severely reprimanded by the judge, who said, in the course of the examination—"This is fencing in a way most unbecoming; you do not answer any one question directly." Mr. Lambert replied to Sir James Scarlett: "I do consider myself more competent than Mr. Bransby Cooper, certainly, sir. I consider him 'totally incompetent.'" He admitted that there had been a misunderstanding between himself and Mr. Bransby Cooper on one occasion at a Guy's dinner; that it did not amount to a quarrel; that he gave an explanation to Mr. Cooper that appeared to satisfy him. He did not see a gush of urine after the use of the knife, and therefore concluded it had not reached the bladder. He believed a small opening had been made into the bladder, through which a small quantity of urine issued mixed with some of the blood. He intended to convey the impression that the man had lost his life for want of skill. He was the author of the quotation from John Bell, and of the remark of the patient that he had come to London to be "operated upon by the nevey of the great Sir Arstley." He was not the author of the epigram, "When Cooper's nevey," etc. In his re-examination by Mr. Wakley, Mr. Lambert said he was ejected from his position of apothecary to the Middlesex Hospital because complaints had been made against him that he was the reporter to the *Lancet;* but he swore positively that neither during the time he was connected with that Hospital nor afterwards did he send any communications to that journal.

The other witnesses for the defence did not much help the defendant. There was evidently, I believe, a desire to give an accurate account of the operation; but they differed in their statements, no doubt, from not being in a position to accurately observe the various steps of the proceedure, but generally they gave it as their opinion that the operation was unskilfully performed. With reference to the appointment of Mr. Bransby Cooper as Surgeon to Guy's Hospital, over the head of his senior, Mr. Callaway, Mr. Harrison swore that he was considered most eligible for the appointment; that it was generally approved of by the Surgical staff and by the governors. He refused to draw a comparison between the merits of Mr. Bransby Cooper and Mr. Callaway. With Mr. Harrison's evidence the proceedings of the day closed; and on the following morning, the interest of the trial having rather increased than diminished, Sir James Scarlett proceeded to address the jury on behalf of the plaintiff. From the opening passages of his address it was clear that he was annoyed at the turn events had taken. No doubt it was sufficiently mortifying that he, the ablest advocate at the bar, had been defeated on a point of law by a young man of another profession; but he was clearly wrong, as an advocate, in showing that mortification, and of complaining bitterly that he *had* been defeated. This is the circumstance to which I referred in my last contribution as having so far influenced the judgment of Sir James as to have made him, with other circumstances then mentioned, the worst advocate Mr. Bransby Cooper could have chosen to represent him. Sir James opened with a fierce tirade against the press, in the course of which he said—"Gentlemen, I am no enemy of the periodical press—far from it, though I have never flattered it, and will never court it; but this I will say, the example of this proceeding has given it a triumph and an interest which it never had before." He proceeded to speak of the career of Mr. Bransby Cooper, which undoubtedly was an honourable one, serving as he had done with merit in the army, and subsequently as assistant to his uncle, Sir A. Cooper, to whom he was an apprentice. He dwelt with much force on the fact that Sir Astley had always trusted him as his representative in his absence, and that, therefore, he must have had full confidence in his abilities as a Surgeon. He defended his appointment as Surgeon to Guy's Hospital, and sneered at the *Lancet* as jealous at not having been consulted on the subject. In dealing with the question of the manner in which the operation was performed, Sir James gave a minute and not inaccurate account of the operation of lithotomy, and proceeded to show that the case under discussion was no ordinary one, but beset with difficulties which might have puzzled the greatest Surgeons, even Sir Astley Cooper himself. He criticised with much minuteness the statements of the various witnesses for the defendant, and showed in what manner they differed, and attempted to prove that the report was contradicted in many particulars by the witnesses for the defendant. He cautioned the jury against receiving implicitly the evidence of the *hireling* Lambert, on whom he passed a severe censure for the *manner* in which he reported the case. He dwelt at some length on the fact of the disagreement between him and Mr. Bransby Cooper, and insinuated that the report had originated in malice. On these points, however, he was not very successful. He then referred to the evidence he should adduce for the plaintiff, to that of Mr. Callaway, who assisted him at the operation, and who would give his opinion as to the manner in which it was performed. He should bring other distinguished Practitioners before them to give their evidence in favour of the abilities and acquirements of Mr. Bransby Cooper. He concluded a long, able, and energetic address, and called upon the jury to let "indignation go hand in hand with justice," and to give their verdict accordingly. The first witness for the plaintiff was Mr. Callaway, who, after describing the steps of the operation and the difficulties which appeared to surround it, was asked by Mr. Pollock—"In your opinion, sir, was the operation performed properly and scientifically, or in a bungling or clumsy manner?" "I think it was performed, under the circumstances of very considerable difficulty, with as much care as the case could possibly receive." "Was the delay that occurred in the operation occasioned by the difficulties presented in the case, or was it owing to Mr. Bransby Cooper's want of skill at the time?" "I think entirely in consequence of the situation of the stone: the difficulty in detaching it." The witness then said he had seen Mr. Cooper perform lithotomy successfully in less than a minute: that operation was not reported in the *Lancet*. He had seen him tie the subclavian artery with success. Then came this very important question, which has a serious bearing on the question at issue, and on the subject of reporting Surgical cases generally—"Now, sir, would you, as a gentleman of science and experience, form a judgment of an operation, and on the degree of the operator's merit, without communicating with him on it?" "Certainly not." In his cross-examination by Mr. Wakley nothing material was elicited from this witness: he might have said that he wished Mr. Cooper had a fortune, for then he (Mr. Callaway) would have been elected Surgeon. He thought the stone had been lodged behind the pubes, but he could not say that it was attached to the bladder. Mr. Bransby Cooper had said that he could not explain the cause of the difficulty.

After Mr. Callaway's evidence, Mr. Key, Mr. Laundy, Dr. Hodgkin, Mr. Brodie, Mr. Travers, Mr. Green, Dr. Babington, Dr. Roget, Mr. Morgan, Mr. Hilton, Sir Astley Cooper, and Mr. Dalrymple, were examined, who all concurred in giving their opinion that Mr. Bransby Cooper was an able Surgeon, and that the operation, being one of very unusual difficulty, was performed with skill.

After this evidence, the defendant addressed the jury. He plunged at once into the real questions at issue. Was or was not Mr. Bransby Cooper a Surgeon fitted by capacity and experience to be a Surgeon to Guy's Hospital? Would he have been elected Surgeon to that great institution if he had not been the nephew of Sir Astley Cooper? He repudiated all feelings of animosity towards the plaintiff, whom he regarded in private life as most estimable and amiable. But the question for the jury to decide was not simply one between himself and the plaintiff, but between the poor patients of Guy's Hospital and the public. These were the parties more immediately interested, and he called upon the jury to show by their verdict that the poor were not properly treated by such Surgeons as Mr. Bransby Cooper. He ridiculed the notion of bringing a lot of Hospital Surgeons to testify to the ability of Mr. Cooper, whilst the plaintiff had only produced one witness on his behalf who was actually present at the operation. He asked the jury if any one of them was suffering from stone, whether he would consent to be operated upon by Mr. Bransby Cooper; and if not, how could they give a verdict in his favour? He asserted that the Surgeon had no right to keep the man bound on the table when he demanded to be released. "He knew the agonies of the stone; he knew too well what were the sufferings arising from the operation; and he was anxious to choose the lesser evil. He said, 'Let

me go—for God's sake let me go! I implore you to let me go—I pray you let me go! do desist; let it keep in!' 'No, no,' says the operator, 'I shall not let it keep in; I must remove the stone; my reputation is concerned. You were brought here to have the stone extracted; extracted it shall be, and it must be, if you die upon the table!'" This piece of clap-trap was not without its effect upon the jury, uttered as it was in a vehement and dramatic manner. Mr. Wakley concluded an able, energetic, and truly *nisi prius* speech, with the following words:—

"I entreat you, therefore, to consider well your verdict. Weigh well the consequences. I care not for the consequences. If you are satisfied of the manner in which this operation was performed, and think he performed it as it ought to have been performed, give him your verdict. I would with my family give up everything; I would give up the *Lancet;* I would give up all, and expire on this spot, rather than injure Bransby Cooper, or any other man under the sun; but if you are satisfied that the operation was not performed as it ought to have been—that if it had been performed properly, the man might have been still living, and a comfort to his wife, and a blessing to his now helpless children—then give such a verdict as will satisfy the poor, as will show the public that men are not to go into offices of this sort where the poor are thus killed, and that Hospital Surgeons shall not be at liberty to 'wade and ride through blood up to their necks' to eminence in their Profession, like great generals. Ah! gentlemen, return a verdict which shall satisfy the poor; which shall degrade for ever, cast eternal disgrace on those Hospital Surgeons who have had the hardihood to come forward here to-day and swear that the operation was performed as it ought to have been, and that they would themselves have operated in a similar way. I have done, gentlemen."

At the conclusion of the address there was loud applause from various parts of the court. In his summing-up, the Lord Chief Justice, after reading the libel, and observing on the fact of the man demanding to be released during the operation, that the Surgeon, so long as he hoped to succeed, should not listen to that demand, concluded as follows:—

"Gentlemen,—I cannot assist you, I think, in this case more than I have done. I have already mentioned that the operation is one of great difficulty—of very great difficulty—one in which there has been failure in the hands of great Surgeons. The length of time furnishes no criterion at all of the operator's skill, nor does the use of instruments. You will take the whole of the case into your consideration; if you are of opinion the defendant has made out what it was incumbent on him to make out, that the operation was performed unskilfully and unscientifically, and in a manner to render the operator unfit to fill the position he now holds—if you think he has made out that, whatever may be your opinion of the form of the report, or whatever may have been the motive which induced Mr. Lambert to send this report to the defendant, the defendant is entitled to your verdict. If, on the other hand, you are not satisfied that he has made out that this operation was unscientifically and unskilfully performed, then you will find your verdict for the plaintiff; and if you find your verdict for the plaintiff, then you will next have to consider what you think you ought to give as your amount of damages. I have already mentioned to you that a charge of this kind against the character of a Professional man, greatly circulated and widely circulated as this has been, is one calculated to do him great and serious injury, and one, therefore, that the jury must think they should say by their verdict that the defendant was wrong in circulating if untrue. However, I cannot go the length of agreeing with an observation made by the learned counsel, that the verdict on any occasion should mark indignation. The verdict should mark cool and temperate consideration, but I do not think on any occasion it should mark either indignation or angry feelings. Gentlemen, with these observations I shall leave it in your hands."

The jury retired at a quarter to nine o'clock, and returned into Court at twelve minutes before eleven, with a verdict for the plaintiff—damages £100.

Mr. Wakley had nearly fainted from fatigue during his address, but had regained his strength. Outside of the hall there was a large crowd, who cheered him vociferously, and the *Sun* newspaper kept its type up to twelve o'clock to record the verdict. I well remember the busy scene outside the *Sun* office in the middle of the night, and the anxiety of the crowd to obtain copies of the paper.

So ended this memorable trial, but its results were of vast importance to the Profession. I shall in my next paper enter into various questions connected with the case.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

[CONCLUDING NOTICE.]

(*From our own Correspondent.*)

PAPERS—(*continued*).

W. J. COOPER, ESQ.

On Use of Solutions of Soluble Chlorides for Laying Dust in Thoroughfares.

MR. COOPER described the results of the system for laying the dust in streets by watering with soluble chlorides. He said the Westminster Board of Works, after observing the effect produced at Whitehall and Knightsbridge, resolved to extend the experiment throughout their entire district, comprising an area of 250,000 square yards. As soon as the area was extended, the economy in labour and water was at once made evident. By using one ton and a half of chlorides per day, costing £3 15s., the labour of ten cart-horses and men, costing £4 10s. (at 9s. per horse, cart, and man), can be dispensed with, and consequently the quantity of water they would spread is saved also—viz., 350 loads of 250 gallons each—which, at 10d. per 1000 gallons (a fair average price for water in London), would amount to £3 12s. 11d., in addition to the 15s. per day saved in labour; thus showing a clear gain of £4 7s. 11d., after paying for the salts. An effective method of remedying the evils arising from organic matter deposited on public thoroughfares is becoming daily a serious matter for consideration with sanitary authorities, as much sickness is believed to arise from the malaria emanating from this source. The disgusting odour and dangerous nature of some of the deodorising agents used was strong evidence that they would not be used at all if the necessity for some determined action to prevent the spread of contagion and disease was not fully recognised. The deliquescent chloride of aluminium, recently introduced to public notice by Professor Gamgee, seemed to meet all the requirements needed in the antiseptic of the future. It was non-poisonous and free from any odour; it prevented decomposition, and arrested it when commenced. It absorbed noxious gases resulting from putrefaction, and destroyed parasites and germs. It was also not to be surpassed as a precipitant and deodoriser of sewage, and was only one-third the cost of carbolic acid. Mr. Cooper proposed to add a sufficient percentage of this chloride to the salts for street-watering, and thereby afford a means of thoroughly and effectually purifying public thoroughfares without additional cost to the ratepayers—the value of the water and labour saved being more than sufficient to pay for the use of the chlorides.

A. E. FLETCHER, ESQ., F.C.S.

Air Pollution from Chemical Works.

Mr. Fletcher observed that during many manufacturing processes gases or vapours are given off which, passing into the surrounding air, pollute it, and render it more or less unfit for the support of animal or vegetable life. The articles which are produced by the carrying out of these processes are, however, highly prized by the community at large, and are, indeed, often among the necessaries of civilised life. If, then, the public demand the production of these smoke-born things, they must be tolerant of the smoke. Still, they are right in requiring that the noxious vapours shall be reduced to a minimum, and in general kept out of their way as much as possible. We are, therefore, shut up to one consideration—namely, how to diminish the escape of noxious vapours. Those who are not familiar with manufacturing districts may be almost startled to know the very large quantity of noxious matter which is discharged into the air in some places. I may instance a town in this county, about twelve miles from here—St. Helen's—a place of 40,000 inhabitants. The chimneys of this town throw up acid vapours to the extent of 50,000 tons a year—50,000 tons, which can be distinctly measured and traced to individual chemical and other works of the place, while, in addition, there is a large amount of gaseous matter escaping which has not yet been measured. Some of these gases are actively injurious to animal life, others to vegetable life. The farmer sees this, but cares little for the interesting industries which are carried on around those smoking chimneys; his interests and that of the manufacturer come into direct collision. Having referred to the difficulty which exists in coming to a fair conclusion as to the amount of damage done, and how the compensation for such damage is to be fairly levied in places where numerous chemical works abound, Mr. Fletcher proceeded to explain how this might be done; but the best method adopted was to take

advantage of snow-falls. From snow which had lain for some time samples were taken at measured distances, and in a recent case these contained notable quantities of acid, which could be traced to adjacent chemical works. In fact, he continued, this method of calculation has been accepted in a court of law; it has guided the decisions given in ten cases tried in Liverpool this year. It will be felt to be an improvement on the older system of allowing the farmer to fasten his claim upon the works which happened to lie nearest him, and to charge upon them the whole of his damage. Probably, however, the farmer does not consider this to be an improvement; for if his claim is distributed over twenty manufacturers, he must embark on twenty lawsuits to gain it, so that he may find that for him distribution means dissipation. Have we, then, in attempting to get justice for the manufacturer, worked injustice for the farmer? Some think so, and advocate a revision of the laws which regulate the decisions in these disputes. It perhaps may not be thought out of place in me to sketch out the direction which I think future legislation should take, being in this mainly guided by the suggestion of Dr. Angus Smith, published in his most able and interesting reports under the Alkali Act. In places where complaints are made by farmers against manufacturers, of damage done to their crops by corrosive smokes, let the district be called a manufacturing district upon requisition of a certain number of the inhabitants. To such district let an inspector be appointed who should have power at any time to ascertain the nature and amount of the gases escaping from the various works. At the end of each month, or longer period, he should publish a list of all the works in his district, with a number indicating the average amount of acid vapour he had found on his separate visits. Here his duties should end; he should be neither prosecutor nor judge; he should simply publish the facts he ascertains—those facts which the farmer never could ascertain. It thus becomes necessary to the manufacturer to adopt every means in his power to limit to the uttermost the emission of noxious vapours, and he often finds the introduction even of costly methods economical if it raises his place in the list, and so diminishes for him the farmer's claim. Then the system proposed would be universal in its application.

A. McGordon, Esq.

How to Prevent Lead Poisoning in Water.

Mr. Gordon said that after employing sewage, which might have been used to fertilise the earth, in polluting the rivers which nature intended to be the source of water-supply, we spend hundreds of thousands of pounds in obtaining pure water from distant lakes and rivers; but no sooner does this pure water cross our threshold than, either from ignorance, carelessness, or false notions of economy, it is in many cases converted into a slow poison. Medical and scientific men have been long impressed with the great danger to health which is caused by the use of leaden cisterns and pipes as a means of storing and distributing water to be used for dietetic purposes; but this danger has not forced itself sufficiently upon the attention of the general public. The cheapness and ductility of lead for water conveyance have been allowed to override the dangers which are known to arise from the action of water upon it. This action is uncertain and various; but instances are so numerous where its effects are positively and immediately injurious, that all who have turned their attention to the subject have come to the same conclusion—that the use of lead should be abolished as a material for the storage and conveyance of water. No consideration, either of economy or convenience, should be allowed to prevail in the face of so important a danger. Dr. Lankester, from an examination of the action of the pure water supplied to Manchester and this town, found in both instances that where the water had been allowed to stand in leaden pipes there were proofs of contamination with lead; and he mentions several remarkable cases of diseases produced in households, which have come within the range of his own observations. He also points out that lead is an accumulative poison. A choice, then, of some other material for pipes, which will have the ductility and cheapness of lead without its dangers, becomes a matter of necessity. Various objections apply to various materials. Iron, for instance, being liable to rust, difficult of repair, and liable to break at the joints when houses settle. Galvanised iron has a diminished tenacity, and is liable to splitting and corrosion. Copper is, of course, out of the question for dietetic supply. Stone, though sweet and wholesome, is impracticable from the difficulties of working; while potteryware is liable to fracture, and guttapercha is wanting in durability and sweetness. Tin alone would be too expensive, and, as a pipe, would be wanting in pliability. The only practical mode of pipe construction which appears to meet on the one hand the requirements of purity and wholesomeness, and on the other cheapness and ductility, is a block tin pipe, encased in lead, the two metals so formed in conjunction with each other as to combine the qualities of ductility and pliability of the lead with the innocuous character and superior tenacity of the tin. The lead casing, which forms a protective coating to the tin pipe, being largely in excess, imparts to the pipe in its combined form the physical qualities which characterise lead, and the two pipes being so united at their surfaces of contact as to be inseparable by any contortion to which they may be subjected. The method of producing this pipe is simple and inexpensive, and consists in forming an ingot of lead, enclosing an ingot of tin, and forcing them simultaneously through a die and over a cone by the usual hydraulic power. The superior tenacity and lower specific gravity of the tin admits of such a diminution in the thickness and weight of the pipe that the manufacturers are enabled to offer it at the same price per yard as lead pipe of equal strength. In other words, it will cost no more to fit up a dwelling with this pipe than with the ordinary lead pipe. From experiments which have been made by the co-operations of Glasgow and in this town, it has been found that this pipe possesses a power of resistance to pressure even greater than that of lead pipe, more than double its weight per yard. Mr. Gordon stated, in conclusion, that wherever the invention had been applied its sanitary value had been found perfect. The manufacture was daily increasing, and its merits were being recognised, not only in this country but in foreign countries.

The President said that a number of experiments were made a few years since by the Sanitary Association of Manchester, the result of which, he believed, was that no coating of tin applied in an ordinary way was sufficient to prevent the action of the water on the lead; but, according to the plan explained by Mr. Gordon, a thicker coating of tin appeared to be applied, and that seemed to be a solution of the difficulty.

Mr. Gordon (in answer to the President) said that the price of the lead piping encased with block tin was not greater than that of lead piping.

William Hope, Esq.

On the Antiseptic Treatment of Contagion as Illustrative of the Germ Theory of Disease.

Mr. Hope said that, on an experimental farm belonging to a company in which he was interested, pecuniarily and scientifically, rinderpest broke out in the summer of 1867 among a herd of 260 or 270 cows. He obtained the report of the Royal Commission on the Cattle Plague, and specially studied the experiments made by Mr. Crookes, F.R.S., telegraphed to Manchester for a barrel of genuine carbolic acid, and determined upon combining the two treatments of liquid diet for the purpose of guarding against the secondary symptoms, with what he might term the chemical treatment recommended by Mr. Crookes. The result was (continued Mr. Hope) "that, while every single animal that I did not take charge of either died or was slaughtered, I succeeded in saving every single animal that I did take charge of; and if you consider the very large scale on which my operations were conducted, the completeness and thoroughness with which the infection had been disseminated throughout the herd, and the fact that rinderpest is the most infectious of all disorders, whether among mankind or the animal creation, known to science, no one can, I think, doubt that the treatment suggested by Mr. Crookes is a radical and complete specific against rinderpest. What I wish to call the attention of the section to is the fact that I saved the lives of those animals, not by any Medical treatment, properly so called, of the animals themselves, but by an unremitting, ceaseless chemical onslaught on the germs of the disease. I argued in my own mind that a theory such as the germ theory of disease could not, in the nature of things, be partially true; it must either be altogether true or altogether false. If true, it was the most hopeful theory that anyone could comfort himself with in face of an outbreak of zymotic disease, because it afforded some firm and sure foundation for treatment. A purely Medical treatment, properly so called, of infectious disease always has appeared to me—if I may be pardoned for the expression of so heretical an opinion in such orthodox company—to be empirical to the last degree. It is probable that medicines act physically as well as chemically; but I am not aware that anyone has been able to give a very satisfactory explanation either of the physical or the chemical action of organic medicines, whether exhibited in the human subject or in a lower organism. The chemical action of many inorganic

medicines is no doubt perfectly understood, but even the administration in the nursery of a home-prescribed dose of rhubarb and magnesia has always seemed to me the height of empiricism. For here the nurse boldly invites the actions of inorganic and of organic substances, although no doubt she exhibits her agents with, on the whole, a happy result. But, at last, we appear to be getting upon some firm scientific footing; for clearly it is more scientific to attack the germs producing disease with a chemical agent whose action is ascertained than to exhibit in the inside of the patient affected a variety of organic and inorganic substances which can only at best act upon the disease, that is upon the germ, through the secondary agency of the patient himself."

After this exposition, Mr. Hope proceeded to describe that he had treated his own child for scarlet fever on the same principle, with carbolic acid. The rooms in which the patient lay were charged with the acid, the clothing was charged, the patient had acid gargles and acid sips continually; in fine, everybody near was charged with the acid, so that the "poor germs," as Mr. Hope defined them, found no rest for the soles of their feet, neither could they find any secure hiding-place. In this lamentable state, we infer they either retired from business or died. Any way, the patient recovered, and the treatment, *post hoc*, by the destroying of the germs came out a success.

A discussion followed Mr. Hope's paper, in which Dr. Baylis, Dr. Cobbold, the President, Dr. Michael Foster, took part.

Alfred Haviland, Esq.

A Proposed Re-arrangement of the Registration Districts of England and Wales, for the Purpose of Facilitating Scientific Inquiry.

The author commenced his discourse by stating that the registration districts of England and Wales were formed for the general purposes of the Poor-law administration, and therefore it could not be expected that they were planned with any view of assisting science; they had, however, done so when in their present crude and artificial form, and it was generally believed among scientific men that, if their boundaries were determined on a natural system, the advantages to meteorology, climatology, and other branches of science would be incalculable, and the expense and confusion of constant alterations avoided. Messrs. Keith Johnston had lately been much engaged by him in the rectification and completion of the registration maps of England and Wales, for the purpose of insuring extreme accuracy in his basis map of the geographical distribution of disease in England and Wales. This had involved him in a considerable extra outlay, but through the recommendation of the Registrar-General, the Treasury, seeing the necessity of the work, had expressed their approval of a grant being paid to Mr. Haviland for the extra expenses incurred. He urged that the artificial system adopted in defining the boundaries of the registration districts had been the cause of all this extra work and expense, and that it had nothing whatever to recommend its continuance; on the contrary, it was the fruitful source of repeated alterations, and would continue to be so whilst it was persevered in. On the other hand, the author showed that were a natural system substituted for the present one, and our country divided into districts regulated by its watershed and river system, we should then have in every district a focus of scientific inquiry, whether it be as to the rainfall, temperature, prevalence or strength of winds, agricultural statistics, the produce of our fields, our mines, or our rivers, or for the purpose of registering the occupations, the diseases, or the deaths of the people. Moreover, such a system would form the best basis map for every future census, and being once established upon a well considered and natural plan, would do away with the necessity of those eternal alterations which are now year by year going on, to the utter confusion of the scientific student. In France, the watershed system is adopted in defining and naming the departments; it is vastly superior to our own, and although its deficiencies are numerous, yet they will act as beacons to us. The author was well aware that such a revolution could not be accomplished under ten years, therefore he urged the necessity of commencing it at once. Should the natural system be adopted before 1881, it would be ready for the census of that year, by which time the Register-General will have completed two more decades of mortuary records under the present system, and these, with the one (1851-60) which Mr. Haviland had geographised, will form a most important foundation for all future inquiry. Mr. Haviland proposed that a committee should be formed to take the whole matter into consideration, and report thereon, first to the British Association, and then to Her Majesty's Government.

Dr. Moffat, M.D.

On the Connexion between Geological Systems and Endemic Diseases.

Dr. Moffat's paper was intended to show that the soil has an influence on the composition of the cereal plants grown upon it, and on the diseases to which the inhabitants are subject. The district in which he practises consists geologically of the carboniferous and new red sandstone or Cheshire sandstone systems. The inhabitants of the first are engaged in mining and agricultural occupations, those of the latter in agriculture. Anæmia, with goître, is a very prevalent disease amongst those living on the carboniferous system, whilst it is almost unknown among those living on the new red sandstone system, and consumption is also more prevalent amongst the inhabitants of the former. As anæmia is a condition in which there is a deficiency of the oxide of iron which the blood naturally contains, Dr. Moffat was led to make an examination of the relative composition of the wheat grown on the soil of Cheshire sandstone, carboniferous limestone, millstone grit, and a transition soil between Cheshire sandstone and the grit. The result of the analysis shows that the wheat grown on the soil of the Cheshire sandstone contains the largest quantity of ash, and that there is a larger quantity of phosphoric acid in it than in the soils of the carboniferous and millstone grit systems; also a much larger quantity of oxide of iron than in either of them. He has calculated that each inhabitant on the Cheshire sandstone, if he consumes a pound of wheat daily, takes in nearly five grains per day of the sesqui-oxide of iron more than the inhabitant of the carboniferous system, and who seems, therefore, to be subject to this great liability to anæmia in consequence of the deficiency of iron and phosphoric acid in the food he consumes. It is not only in the wheat grown upon the carboniferous system that there is a deficiency in the quantity of oxide of iron and the phosphates, says Dr. Moffat, but also in the blood of the animals reared upon it; so that the inhabitants upon that system take in a minimum quantity of these constituents of the blood, compared with that taken in by the inhabitants of the Cheshire sandstone. He stated that sheep were liable to anæmia—a fact which he attributed to sheep-walks being upon trap and limestone hills, in the soil of which there is but little, if any, iron.

The President having thanked Dr. Moffat for his valuable paper,

Dr. Turnbull, of Liverpool, said that the paper was a valuable and important communication, opening up a comparatively new subject which had scarcely yet been touched upon, and he wished there had been a large Medical audience. It showed that there was a connexion between the geological conditions of soils and the health and diseases of the inhabitants living on the soils. It showed, too, that this influence might be indirect through the food grown on the soils, and it showed how the particular disease, anæmia with goître, might be produced by deficiency of the oxide of iron and the phosphates in the wheat grown on a certain soil. Such facts were interesting, in reference both to animal and vegetable physiology, and, practically, to the agriculturist as well as the Physician. There was another statement in the paper particularly interesting to him—that consumption was less common in the inhabitants living on the Cheshire red sandstone than in those living on the soils of the carboniferous system. He had himself, in a work on this disease, directed attention to the inequalities in the distribution of this, the commonest of all diseases, and urged the importance of investigating the causes of these inequalities, with a view to their prevention. He had also pointed out that in this town of Liverpool, which had been the most unhealthy, but which initiated sanitary improvements, the statistics furnished by the late Dr. Duncan showed that these improvements reduced, in a remarkable manner, the mortality from phthisis. An inquiry into the results of sanitary measures in twenty-five of the large towns of England, which had been made under the direction of the health officer of the Privy Council, had since proved that drying of the soil by main sewers produced its first and greatest improvement in the mortality of large towns by reducing that from this disease. This had led to the first inquiry which had yet been made into the effects of geological conditions of the soil on the health of the inhabitants. The three south-eastern counties of Surrey, Kent, and Sussex were carefully examined by Dr. Buchanan, under the direction of Mr. Simon, and this inquiry had, he observed, brought to light the important fact that dampness of soil is a powerful cause of consumption. This might be considered the first fact brought to light in relation to the influence of geological conditions on endemic disease; and Dr. Moffat had in this communication, which tended to bring science to the prevention of disease, brought another fact

to light, and had proved that conditions of soil might indirectly influence the inhabitants through the food grown on the soil.

DR. RICHARDSON, M.D., F.R.S.

New Physiological Researches on the Direct Action of Carbonic Acid.

Dr. Richardson explained that the observations he had made were new, in that they related to the direct action of carbonic acid on animal and vegetable fluids, and they were interesting equally to the zoologist and botanist as to the anatomist. He first demonstrated, from a specimen, the result of subjecting a vegetable alkaline infusion to the action of carbonic acid under pressure. The result was a thick fluid substance, which resembled the fluid which exudes as a gum from some trees. When this fluid was gently dried it became a semi-solid substance, which yielded elastic fibres, and somewhat resembled caoutchouc. This observation had led the author to study the effect of carbonic acid on albumen, serum of blood, blood itself, bronchial secretion, and other organic fluids. When the serum of blood was treated with carbonic acid under pressure and gentle warmth, 96° F., the colloidal part was separated; but when the blood, with the fibrine removed from it, was treated, there was no direct separation, the blood corpuscles seeming for a time to engage the gas by condensation of it. But blood containing fibrine, and held fluid by tribasic phosphate of soda, was at once coagulated by the acid. The bronchial secretion is thickened by carbonic acid, and a tenacious fluid is obtained, resembling the secretion which occurs in asthma and bronchitis, while secretions on serous surfaces are thickened and rendered adhesive. After detail of many other facts, Dr. Richardson concluded by showing what bearing this subject had of a practical kind. In the first place, the research had relation to the question of elasticity of organic substances; and secondly, to the direct action of carbonic acid on the production of vegetable juices. But the greatest interest concentrated on the relation of the research to some of the diseases of the animal body. Thus, in instances where the temperature of the body is raised and the production of carbonic acid is excessive, the blood on the right side of the heart has its fibrine often precipitated; and in many other cases fibrinous or albuminous exuded fluids are solidified in the presence of the acid, as is the case in croup. The author, in the course of his paper, explained also how rapidly blood charged with carbonic acid absorbed oxygen when exposed to that gas, and he held that carbonic acid in the venous blood was as essential to the process of respiration as was the oxygen in the pulmonary organs.

DR. BROWN-SÉQUARD, M.D., F.R.S.

On Apparent Transmission of Abnormal Conditions due to Accidental Causes.

On Various Alterations of Nutrition due to Nervous Influence.

Dr. Brown-Séquard read or rather spoke the two papers named above at one meeting. There was, in fact, a close relationship between the two subjects, and they were, of course, treated with the skill and work of a master in science. The point which attracted most attention was an experiment in which it was shown that a certain injury to the medulla in guinea-pigs is followed by gangrene of the ear, and that the disease thus induced is distinctly transmissible to the progeny of the animal. Animals were shown to the Section in illustration of this fact.

In the discussion which followed, Professor Huxley spoke in eloquent and forcible terms of the value of these researches, and defended from them the importance of properly conducted vivisection for the advancement of science. He paid also an earnest tribute of respect personally to Brown-Séquard—a tribute received with warm applause.

DR. P. H. SMITH, M.D.

On Left-handedness.

Dr. Smith said it was a fact, not only in this country but in other lands, that, while most men and women used their right hand with strength and dexterity, a number used their left hand instead. The subject, he said, had excited a great deal of discussion, and a number of theories had been advanced in respect to the matter. The principal question was not why some people were left-handed, but why so many were right-handed. They occasionally met with persons whose principal organs were completely turned about, some having their heart on the right instead of the left side; and some had tried to establish left-handedness on this ground, while others had advanced that it was in consequence of the great arteries being sometimes found twisted. After referring to other theories—such as the position in sleeping, nursing, etc., in early childhood—Dr. Smith confessed that he had no solution of his own to urge, but his object was rather to elicit the opinions of some one who was likely to advance some satisfactory solution.

A brisk discussion ensued, which resulted—if in anything—in a recognition of the one solution of the difficult question—that left-handedness is the result of education in the use of the left hand. The paper drew a crowded audience.

B. C. TICHBOURNE, Esq., F.C.S.

On Dust as a Ferment.

Mr. Tichbourne urged that atmospheric dust, or the floating constituents of our air, was not much investigated in this country until Professor Tyndall and others called attention to its importance. Professor Tyndall had demonstrated that this dust might be viewed as organic matter, but its proximate analysis was one of extreme difficulty. Dr. Angus Smith had worked out some valuable facts on this subject. His own investigations tended in the direction of a local pabulum for the dust—that was, dust which extended to a certain height in the air. In his analyses he found that the relative quantities of organic and inorganic matters varied in different localities, and he found that dust was an active ferment, even when taken from buildings of considerable height. In the case of dust taken from the roof of the Theatre Royal, Dublin, he found a large proportion of inorganic matter, 21 per cent. of which was oxide of iron. This he accounted for by the combustion from the gas burners. In his experiments with dust as a ferment he had succeeded in measuring the quantity of fermentation, and he described the process by which this had been effected.

The President said that the fact that the amount of fermentation had been measured seemed to him to be new, and likely to lead to important results. The action of dust as a ferment had attracted a great deal of attention lately. There was little time for discussion, but he could not refuse to do himself and the Section the pleasure of asking a gentleman to make a few remarks on this subject whose name was connected primarily with it. Dr. Angus Smith had investigated the subject for many years, and in some respects justice had not altogether been done to his investigations. (Hear, hear.) He did not believe that had been the result of anything more than forgetfulness, but at the same time they should take care that the good fame and hard work of those who had originally gone into these questions met with a proper recognition.

Dr. Angus Smith said it sometimes happened that a little injustice might be done a man, which was more than repaid afterwards when he obtained too much, and they must take care that this did not come to pass in his case. The action of one decomposing body on another had been clearly explained by Liebig, although very curiously he only expressed what others had, in somewhat different language, said two centuries before. The matter since Liebig's time had taken another form, and the action of decomposing organic substances had been considered less important than the action of what might be called organised substances. This position Liebig objected to very much, but the researches of other chemists had proved that such was the case. It was very possible that both of the actions might go on in nature, for nature was a very wide field. He did not understand from Mr. Tichbourne what kind of fermentation was induced. An infinite number of actions might take place from variety in the dust. We might imagine a cholera germ, if there was such a thing, to produce an analogous cholera fermentation. Why should not such germs in travelling about introduce cholera into particular organic bodies, the inorganic substances in filth first receiving it? A filth spot might be said to take the disease and transfer it to human beings. The most important inquiry now was to find out what quality of fermentation took place, when certain qualities of germ were used. This was the heart and marrow of the question for the future.

SUMMARY.

In addition to the papers named above, several others were submitted, which, though of great value, have less direct interest to the purely Medical reader. Professor Cleland read a paper "On the Seats of Consciousness and Sensibility, including a New Theory." Professor Flower read an essay "On the Connexion between the Hyoid Arch and the Skull," and "On the Correspondence between the Anterior and Posterior Extremities and the Position of the Limbs in the Higher Vertebrata." Mr. Garner contributed a paper treating of the "Comparison of the Thoracic and Pelvic Limbs in Mammalia." Dr. Arthur Gamgee sent a report "On the Heat Generated in the Blood in the Process of Arterialisation." Dr. Grierson communicated "Remarks on Variation of Colouring in Animals," in which he showed that the natural tendancy of animals was to become darker with the progress

of age. Professor Humphrey read "On the Relations of Fins of Fishes to one another." Mr. Ray Lankester communicated two papers—(*a*) "A Note on Methæmoglobin;" (*b*) "On the Action of some Gases and Vapours on the Red Blood Corpuscles." Mr. Maxwell read a paper "On Colour-Vision at different Spots on the Retina," and explained that, looking at a blue or red colour after looking upon yellow or white, if the light be suddenly let in upon the eye, various forms will strike the eye, according to the colour looked upon. This fact, he thought, confirmed the theory of Dr. Thomson, that the three primary colours were reflected upon the eye, and acted upon three distinct sets of nerves. Professor Traquair described "The Cranial Osteology of Polypterus Bichir." Professor Macalister supplied "A Sketch of some Varieties of the Pronatur Quadratus;" and Dr. A. T. Waters delivered an excellent paper "On the Intimate Structure of the Human Lung."

A communication, by Drs. Sanderson and Stricker, "On a New Method of Studying the Capillary Circulation in Mammals," was made to the Department of Anatomy and Physiology, and was afterwards, as I reported last week, the subject of a special demonstration at the School of Medicine.

DISCUSSION ON THE SPONTANEOUS GENERATION THEORY.

On the last day of the meeting in the Section of Biology, Dr. Bastian made "A Statement in Reply to the Two Objections of Professor Huxley relative to certain Experiments." The two objections thus opposed were as follow:—Professor Huxley had said, in relation, as he (Dr. Bastian) assumed, to his experiments—"The first reply that suggests itself is the probability that there must be some error about these experiments, because they were performed on an enormous scale every day with quite contrary results. Meat, fruits, and vegetables, the very materials of the most fermentable and putrescible infusions are preserved to the extent—I suppose I may say—of thousands of tons every year, by a method which is a mere application of Spellanzani's experiment; and thus it was presumed that those meats were free from living organisms." And he had said further—"If, in the present state of science, the alternative is offered us—either that germs can stand a greater heat that has been supposed, or the molecules of dead matter, for no valid or intelligible reason that is assigned, are able to rearrange themselves into living bodies, exactly such as can be demonstrated to be frequently produced in another way—I cannot understand how choice can be, even for a moment, doubtful." To these difficulties raised by Professor Huxley, Dr. Bastian replied at length, relating the information he had gathered from Mr. M'Call's method of preserving animal substances by exposing them to a high temperature, and to his own well-known experiments of exposing solutions to a high temperature, after the vessels containing them had been hermetically sealed, for the purpose of seeing whether any living things would be subsequently found in those solutions after being so exposed. The author defended the positions he had previously taken, and concluded by saying that, as his flasks had been exposed from 146° to 153° centigrade, and there was a great difference between them, and as living things were found afterwards in those infusions, he was inclined to think that the evidence seemed at present—and that was all he would say—to be in favour of the view that the living things found in those solutions had been evolved *de novo*. He said so simply because no other living thing had been shown positively to resist the influence of a heated fluid raised to 140° centigrade; and that led him to state what he really thought would be a proper line to take, in order to throw light upon this question—that was, let it be a question of fluid temperature. What he held was this: take as many living things of any conceivable kind, and put them purposely into a certain amount of fluid; hermetically seal them up, and subject them to a temperature of 140° centigrade; let the exposure be always long-continued—say from two to four hours—then let it be seen if any living thing could be taken out of the solution so exposed, and could be shown still to retain the properties of life.

In the discussion that ensued, Mr. Samuelson opposed Dr. Bastian. Dr. Childs thought the question of time of heating, in the case of preserved meats, was apart from the subject. Mr. Eddowes joined with Mr. Samuelson in opposition; Dr. Tyndall following on the same side, and remarking that Dr. Bastian used the term temperature in an equivocal sense. Monsieur Pasteur spoke of a temperature of liquids; and he (Professor Tyndall) said they might take every individual in that room and throw them into a tank at a temperature of 150° centigrade, and not one of them would come out alive, whereas if they were put in a Turkish bath of that temperature they would come out all the better for it. (Laughter.) He told Dr. Bastian he would have to go home and apply himself to his experiments with these modifications before he would be able to convince scientific men on that point.

Dr. Bastian said the question was, What was the standard of vital resistance? What amount of heat could these little things stand against as against the possibility of their rising *de novo?* He could only take the evidence in existence as to the capacity of living things to stand against it. Indisputably, if his experiments could not be shown to have any sort of failure in them, the other side was bound to raise the vital principle to the point to which he raised it.

Professor Tyndall urged that what Dr. Bastian had fairly established was this, that, in a gaseous atmosphere, after the germs had adhered to his flask, they were able to stand a temperature of 150° centigrade instead of 130°. They were told, however, that germs were destroyed at 100° centigrade, others at 110°, others at 120°, and others, again, at 125°; but Dr. Bastian had found that certain germs of life could withstand a temperature up to 150° centigrade. He thought the conclusion was that, if they could withstand that temperature, there was nothing like spontaneous generation.

Dr. Bastian insisted that they must consider the whole existing evidence to be swept away. The work must be done again; but, so far as their present state of knowledge went, the evidence was in favour of spontaneous generation.

Professor Tyndall: No, no.

Dr. Bastian, continuing, read the conclusion of his paper, so that the public might see what his arguments were. His principal contentions were—"1. That there is a strong *à priori* probability in favour of the possibility of the occurrence of the heterogeneous evolution of living things, and that the most reliable scientific data which we possess do, in fact, fully entitle us to believe in this as a possibility. 2. That microscopical investigation, whilst it teaches us as much concerning the mode of origination of the lowest organisms as it does concerning the mode of origin of crystals, enables us to watch all the steps of various processes of heterogeneous evolution of slightly higher organisms, such as may be seen taking place in a pellicle on a fluid containing organic matter in solution. 3. That the kind of organisms which have been shown to be destroyed by a temperature of 100° centigrade may be obtained in organic fluids, either acid or alkaline, which, whilst enclosed within hermetically sealed and airless flasks, had been submitted not only to such a temperature, but even to one varying between 146° and 153° C. for four hours. 4. That a new and direct evolution of organisable compounds may, in all probability, be capable of arising, sometimes by isomeric transformation of the atomic constituents of a single saline substance, such as tartrate of ammonia, and sometimes by a rearrangement of certain of the atomic constituents belonging to two or more saline substances existing together in solution. It is not only supposed that this may occur, but that even living things may subsequently be evolved therefrom, when the solutions have been exposed, as before, in airless and hermetically sealed flasks to a temperature of 146° to 153° C. for four hours. On account of this *à priori* probability, and in the face of this evidence, I am, therefore, content and, as I think, justified in believing that living things may and do arise *de novo*. Such a belief necessarily carries with it a rejection of M. Pasteur's theory of putrefaction, and of the so-called "germ theory of disease."

The Chairman, Professor Rolleston, said he was prejudiced against spontaneous generation, and for this reason, that, looking at the original strata of the earth, they contained the same form of animal life that existed now, and we had not other forms of life rising up after the long series of years during which this world of ours had been in existence. He contended that they must, in this matter, take into consideration the value of negative experiments. When they had Professor Lister on the one side, and Dr. Bastian on the other, he would advise them to look at this matter somewhat credulously. The meeting, he added, was much obliged to Dr. Bastian for his valuable paper.

My duty as your correspondent ceases now for the present year. To me the labour has been agreeable and useful; I trust the result of it may prove agreeable and useful to your many readers, and that all will agree in acknowledging the industry and position of the scholars who represented Medicine at the Fortieth Meeting of the British Association for the Advancement of Science.

Correction.—At page 377, column 2, line 30, for Professor *Cleland*, read Professor *Huxley*.

THE HISTORY OF INORGANIC MATTER.

By Dr. F. A. HARTSEN.

The investigations of Darwin, Huxley, Häckel, and others, have rendered it highly probable that organisms, belonging to the same natural group, are descendants from a common stock. So much for organisms. Now, as far as I know, no suggestion has hitherto been made for the application of the same principle to the inorganic world, although there are here many indications towards it.

The different species of matter considered as "elements" offer amongst them different degrees of affinities. Potassium, for example, as to its conduct in different circumstances, shows a stronger likeness to hydrogen than to sulphur. In short, the "elements," like plants and animals, are liable to a natural classification. This analogy between organisms and "elements" leads us to this question: Should not the "elements" belonging to the same group have a common origin?

To my mind, the affinity between several metals—viz., iron, nickel, cobalt, etc.—cannot be accepted as bare fact, but demands explanation. Now, the desire for such explanation leads us to the hypothesis of a common origin.

There is, indeed, nothing absurd in the supposition that the "elements" belonging to the same group should be mere transformations of the same primitive element, and that, finally, as to their origin, all are to be reduced to one common ancestor. We can submit to the possibility that all "metals" are transformations of a hydrogenous, and all "metalloids" transformations of an oxygenous matter. We may, therefore, further suppose that the latter two primitive kinds of matter are but the same substance in different states of electricity.(a)

We are not able, at present, to furnish many facts in support of our idea, but the professionally chemical student will be able to discover them. We will only point out a few examples which seem to us pretty significant:—

First, we remark the striking fact that the "elements" of meteors consist almost exclusively of three affinitive metals—iron, nickel, cobalt.

Another interesting fact is this:—The moon, as astronomers inform us, has no atmosphere. Now, according to the hypothesis of Kant and Lavoisier, the moon is an offspring of the earth. If this be true, we may ask—Why did the moon, when she took leave of her mother, not make a little provision of oxygen, hydrogen, carbonic acid, and nitrogen? Were these elements not yet formed at the epoch in question?

As to organisms, the new doctrine of creation finds a strong support in Palæontology. Now, where are we to look for the fossil ancestors of iron, gold, etc.? This question seems to cast irony upon our idea. Nevertheless, this is not the case. The history of metals may not have been written in oölite, slate, or "Muschelkalk," . . . . there are more things still on earth—aye, in the universe.

The transmutation of "elements" may have taken place chiefly before the birth of mother Gea—even before that of our whole planetary system. In the oldest fixed stars we have to look for the primitive "elements." Kirchhoff and Bunsen have to teach us the relative ages of metals.

And now we have to discuss an objection which probably most of the *augures* of chemistry will make to us.

It is a common error among those accustomed to work with the instrument called analogy, to make an abuse of it, and to profess as an axiom—"what has not been done under our own eyes has never been done, will never be done, cannot be done."(b)

According to this error, many people have opposed to Darwin this objection:—We cannot transform a lower species into a higher species; in consequence, your theory is not right.

According to the same principle, it will be argued—we cannot transform one metal into another; in consequence, such a transformation is an absurdity.(c)

Such reasoning is perfectly unscientific. The workmen of our laboratories may have subjected "elements" to many agents without seeing any transformation of one into another; they are far from having exhausted the infinite world of combinations.

Above all, there is one agent they have been able to make use of but sparingly. This costly agent is—time. We can say, perhaps, what becomes of iron when subjected to a high temperature of 3000° for days and months; we do not know what becomes of it when kept under a temperature of 3,000,000° during thousands, nay millions of years!

"Unser Wissen ist Stückwerk!"—*Goethe.*

We cannot help thinking that chemical inquiry may derive benefit from the hypothesis here explained, in the same way as botany and zoology have been benefited by the speculations of Lamarck, the author of the "Vestiges," and Darwin.

(a) We do not decide here upon the origin of the first matter. Some men of science assert that a creation, in the rigid acceptation of the word, is absurd. But one of the greatest geniuses of Germany, Professor Fechner, is not of this opinion. In mathematics, so he observes, we have examples of the following kind:—Let $y = \sqrt{ax}$. If the value of y gradually increases or diminishes, the moment will come when a is 0. If from this moment y goes on increasing or diminishing, the value a will reappear. From this Fechner concludes that, *à priori*, a creation from nothing cannot be declared to be impossible.

(b) This principle seems to be truly empiric. But it is, in fact, one of the strongest hindrance against progress of science, and a very bad argument against supranaturalism. I venture to refer the reader to the article on "Miracles," in my *Untersuchungen über Logik* ("Researches on Logic"). Leipzig: Thomas.

(c) There are exceptions. Louis Figuier does not admit this absurdity. *See* his interesting work, "Les Alchymistes."

ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1868.

We observe that this, the tenth volume of the series of reports annually issued by the Director-General and heads of branches of the Army Medical Department, has been completed considerably sooner than in previous years, and has been for some time before us, but we have been compelled by want of space to defer our notice of it. It is also hoped that future reports will be ready still earlier for presentation to the Secretary of State for War and to Parliament.

During the year 1868, or rather the fifty-three weeks ending January 1, 1869, in a strength of 78,261 soldiers of all ranks serving in the United Kingdom there were 70,008 admissions into Hospital and 853 deaths, 69 of which occurred among men absent from their corps. The average number constantly non-effective from sickness amounted to 3391. The admissions were therefore in the proportion per thousand of 894, the deaths, 10·90, and the mean daily sick 43·33.

As compared with the average of the preceding eight years, the year 1868 gives the following results:—

Ratio per 1000 *of Mean Strength.*

	Admitted.	Died.	Constantly sick.
1868 .	894	10·90	43·33
1860-67 .	963	9·34	49·20

The admissions into Hospital have been 69 per 1000 below, and the deaths 1·56 per 1000 above, the average of the preceding eight years. The reduction in the former has taken place chiefly in miasmatic and enthetic diseases, and in those of the respiratory system. The increase in the deaths has not been confined to any class, but has been most marked in diseases of the circulatory system, in those of the digestive system, and in accidents. There has been a trifling decrease in the mortality by miasmatic diseases. The above statement is illustrated by the following extracts from the table given in page 2:—

Ratio per 1000 *of Mean Strength.*

	1868.		1860-7.	
	Admitted.	Died.	Admitted.	Died.
Miasmatic diseases . .	174·9	·92	196·3	1·08
Enthetic diseases . .	282·2	·10	314·1	·11
Diseases of the circulatory system	9·2	1·80	8·8	1·00
Diseases of the digestive system	38·9	·88	37·0	·54
Accidents	94·0	·95	81·0	·61

Inspector-General Lawson, principal Medical officer at Aldershot, contributes a paper on the subject of Aneurism and Diseases of the Heart at Aldershot, from which it appears that during the nine years from 1860 to 1869, with the exception of the first year, the deaths from affections of the heart among the troops at Aldershot have not varied very materially, while the mortality from aneurism was not greatly different up to 1867, when it became doubled, and the high ratio of 1867 was again doubled in 1868. From 1860 till 1866 the deaths from aneurism of the aorta varied from ·25 to ·43 per 1000, in 1867 they were ·81, and in 1868 they increased to 1·68 per 1000 of mean strength.

Diseases of the heart and aneurism were nearly equally distributed among the mounted corps and the infantry, and even in the infantry was very irregularly distributed. Mr. Lawson

finds the cause of this peculiarity difficult to explain; the disease was frequent in some regiments recently returned from Indian or Mediterranean service, and in others which had been for some time at home; while, on the other hand, no cases occurred in other regiments under almost identical circumstances. Mr. Lawson continues his paper by giving his views of the pathological history of several of the cases of aneurism which came under his observation at Aldershot. Without discarding the influence of atheroma of the inner coats of arteries, he is of opinion that, at least among soldiers, aneurism seems frequently to exist quite independent of that form of disease of the inner coat of the arteries, and that destruction of large portions of the whole three coats may take place by an acute phlegmonous process, without there being a trace of atheroma; that death under such circumstances may suddenly result from a rupture of the vessel when the surrounding parts did not prevent the escape of a sufficient quantity of blood, or when this impediment exists a simulation of aneurism may occur. In support of this view he quotes a case in which fatal hæmorrhage from a natural opening in an abscess in the left tonsil and superior constrictor of the pharynx was found to have occurred from the left internal carotid artery, at a point just before where it turns to enter the internal carotid foramen of the temporal bone, and says: "From what we know of the resistance of the coats of the larger arteries to ulceration, even when passing across an eroding sore or abscess, it appears reasonable to conclude that the vessel in this case was itself originally implicated, and that the resulting abscess opened through the muscle, and not that an abscess first arose there which ultimately led to the destruction of the coats of the vessel." Now, on this point, we confess we cannot agree with Mr. Lawson, as it appears to us that the situation of the lesion in the artery indicates tolerably clearly that the pressure exerted by the abscess on the vessel against the bony margins of the internal carotid foramen must have been the exciting cause of the destructive inflammation which occurred in the arterial coats. Under such circumstances the condition of an artery, as regards its liability to ulcerative destruction of its coats, is very different from what it would be if the vessel were passing without constriction or pressure through an abscess, or even through sloughing tissue. We are, therefore, of opinion that in the case quoted the solution which we have suggested of the question as to the cause and nature of the arterial lesion, is more simple and adequate than that given by Mr. Lawson.

On looking back through the former reports it may be observed that although the mortality from diseases of the circulatory system among troops serving at home has increased almost uninterruptedly from ·72 per 1000 in 1860 to 1·80 per 1000 in 1868, there has not been a proportionate increase in the rate of admissions, which in 1860 was 7·5 per 1000, and in 1868 only 9·2 per 1000. It may therefore, we think, be fairly concluded that the increase of mortality is more apparent than real, and can be fully accounted for by the greater care which has been taken by Medical officers to record as the actual causes of death aneurisms which have only been detected on the post-mortem examination of patients who during life had been under treatment for other diseases.

We are prevented by want of space from at present further noticing the contents of this report as regards our own army, but have, in a previous number, given an abstract of Professor Longmore's paper on the method adopted by the Prussian Government of conveying sick and wounded by railway.

REVIEWS.

Physique Biologique. Les Phénomènes Physiques de la Vie. Par J. Gavarret, Professeur de Physique a la Faculté do Médecine de Paris. 1869. Paris: Masson et Fils. London: Williams and Norgate.

Biological Physics. The Physical Phenomena of Life. By Professor Gavarret.

The author of this volume is well known in the scientific world for his works on Electricity, the Electric Telegraph, and Medical Physics, the last-named treatise being devoted to the consideration of "The Heat Produced in Living Beings." We cannot better describe the object which Professor Gavarret had in view in the composition of the present essays—on the Circulation of Matter, the Circulation of Force, and on Spontaneous Generation, including the subject of Vital Force—than by an abbreviated quotation from his preface, which we the more willingly give as it may afford a hint as to the establishment in our own Medical schools of a chair similar to that which the author so worthily fills in the Paris Faculty of Medicine:—"Charged with the duty of giving instruction in physics, I have always felt that I should not completely fulfil the mission entrusted to me if I contented myself with explaining to my pupils the laws of molecular actions, acoustics, heat, electricity, and optics. I have always to explain, and to give prominence to, the bearings of the physico-chemical sciences on the different branches of biology, to indicate the parts which heat, light, and electricity play in the functions of the economy, and in the phenomena of life generally, and to show in what manner and to what extent general physics have contributed to the progress of physiology, pathology, hygiene, and even therapeutics. I regard the lectures which I have yearly devoted to the study of these questions, which collectively form the subject of *Biological Physics*, as the most useful and important part of my course. I have successively discussed the origin of heat produced by living beings; the physical phenomena of vision, speech, and hearing; the physical conditions of climates; the imbibition, capillarity, endosmosis, and diffusion of liquids and gases in their relations to absorption; electro-physiology; and the mechanical conditions and actions of the economy. At the commencement of the present session (1868-69), I felt that the period had arrived at which I should enlarge the scope of my teaching, and should study questions of the most general nature and of the highest order."

He then refers to the great discovery of the *reciprocity* or *correlation of forces*, and asks whether this grand and beautiful theory is sufficiently general to include the dynamical manifestations of the organised world, as well as those of the inorganic kingdom. His lectures on biological physics—which virtually constitute this volume—are devoted to the examination of this important question, and he expresses his conviction that it is only by pursuing this line of inquiry that we can ever hope to ascertain the true nature of the relations existing between biology and the physico-chemical sciences.

We have already mentioned the abstruse subjects which are specially discussed in this volume, and when we add that they are treated in a most lucid and agreeable manner, and that the latest discoveries are introduced, we trust that we have said enough to persuade all our physiological readers to study it for themselves. We shall content ourselves with giving the conclusions at which the author arrives:—

"There is an incessant exchange of matter and force between organised beings and the external world. The vegetable borrows from the mineral kingdom the materials with which it constructs its organic substances, and from the sun the force necessary for the accomplishment of its internal work. Without losing the slightest portion of its energy, this force becomes chemical affinity in these organic substances, all of which are combustible. The animal, in its turn, borrows from the plant its alimentary principles, which it burns, and restores to the mineral condition before returning them to the external world. The chemical reactions which ensue at the moment when the combustion of these alimentary organic principles occurs in the capillaries throughout the body, are the actual and only source of all the force which the animal can exert.

"In an animal every histological element possesses its special activity, and these different activities, whose speciality depends on the speciality of the composition and of the texture of the element considered histologically, owe all the chemical reactions which are accomplished in the hidden recesses of the organism to the conflict between the oxygen and the combustible materials of the blood. The activity developed by a tissue, an organ, or an apparatus, is, in reality, nothing more than the resultant of the special activities of the histological elements of which it is composed.

"Lastly, the work which effects the development of any organism is profoundly influenced by the mechanical, physical, and chemical conditions of the surrounding medium.

"From this point of view, which allows us to include the organic kingdom in its full extent, life no longer appears as a force or as a cause, but as a simple effect."

The volume terminates with a collection of the principal documents from which the author draws his conclusions.

L'Astronomie, la Meteorologie, et la Geologie, mises à la portée de tous. Par H. Le Hon. Sixième Edition. 80 gravures. 1870. Pp. 354. Brussels: Marquardt. London: Williams and Norgate.

Astronomy, Meteorology, and Geology, for General Readers. By H. Le Hon.

Although this little book treats of subjects that are rather of general than of purely Medical interest, we notice it on account

of its remarkable value as an elementary educational work. Never have we met with so much sound scientific information clearly and pleasantly described as in these pages. Popular books on science are too often written by men who have little or no accurate knowledge of the subjects which they are handling; and unfortunately it is only seldom that men like Faraday, Tyndall, and, to a lesser degree, the present writer, descend from their high position to instruct the public at large. M. Le Hon is well known as the author of works on the antiquity of man; on the influence of cosmical laws on climatology and geology, etc.; and of a splendid monograph on the history of the great eruption of Vesuvius in 1634; and the present unassuming little book is just what we might expect from one who is so thoroughly master of his subject. We are not surprised to see, from a statement in the preface, that it was employed by the late King Leopold for the education of the royal princes.

GENERAL CORRESPONDENCE.

REPRESENTATION OF THE ROYAL COLLEGE OF SURGEONS IN THE GENERAL MEDICAL COUNCIL.

LETTER FROM MR. CHRISTOPHER HEATH.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg that you will allow me to appeal through your columns to those Fellows and Members of the Royal College of Surgeons of England who desire to assert the right of the Corporation to elect a representative in the General Medical Council under the Medical Act of 1858. Whatever improved modes of representation of the Profession may be contemplated in drafts of future Bills, we have nothing to do with them at present. Our right to elect a representative exists in the opinion of the lawyers who have been consulted; and it rests now with the Corporation to show whether it values that right sufficiently to contest it in a court of law.

The necessary proceedings to bring about a legal decision as to whether the Corporation or the Council is entitled to elect, should be commenced in November, and we ought to have £150 in hand. Dr. Morris, F.R.C.S., of Spalding, who has already shown his energy in the cause of reform at the College of Surgeons, has consented to act as treasurer to the fund; and an account in our joint names will be opened at the Western Branch of the Bank of England, Burlington-gardens, where subscriptions, limited to one guinea, may be paid to the "College of Surgeons Representation Fund." Dr. Morris or myself will be glad to receive contributions in any form, and to any amount up to a guinea; and we do not propose to expend money in advertising the names of contributors, but shall simply publish a balance-sheet when the object of the fund has been accomplished. Trusting that those gentlemen who exerted themselves to obtain signatures to the memorial by which the original meeting of the Fellows and Members was brought about, will now be kind enough to solicit subscriptions in the cause,

I am, &c. CHRISTOPHER HEATH, F.R.C.S.

9, Cavendish-place, W., Sept. 26.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 6.

Dr. GRAILY HEWITT, President, in the Chair.

DR. BARNES exhibited an improved anti-hæmorrhagic case, prepared by Krohne and Sesemann. It contained a Higginson's syringe, three cervical caoutchouc dilators, a uterine tube, perchloride of iron, permanganate of potash, and ergot. The improvements consisted—1st, in making the uterine tube of vulcanite, in disposing the perforations at the uterine end, in doing away with all metal in the apparatus; 2nd, in substituting the solid perchloride of iron for the solution, thus obviating risk of injuring the instruments by leakage. The ergot is in powder. Thus no fluid is contained in the case.

DR. PROTHEROE SMITH exhibited his exploring needle trocars. Since he first showed them in 1867 he had considerably improved the instrument, which consisted of hollow steel needles, gilt, adjusted to a powerful glass exhausting air-syringe, or, as it has been called, "pneumatic aspirator." This, by means of a spring stop on the piston rod, and a double-action tap at its distal end, formed an air-pump, which enabled the operator easily to explore distant or deep-seated tumours, and to withdraw their contents, when fluid, without pain or wound more than that of a pin. He had found this instrument of the greatest use in the diagnosis of tumours and in their treatment, since it enabled one, without shifting the needle, to introduce by the same syringe iodine or any other remedy into cysts. So slight is the irritation induced by the needles that they have been passed without any untoward results into the cavities of the pleura, the peritoneum, the bladder, etc. For the purpose of diagnosing solid tumours, he observed that he had invented another trocar, which gave one the power to cut off at any given depth a pencil-shaped piece of any structure for microscopic or other examination.

Dr. BRAXTON HICKS exhibited a large Fibrous Tumour, which he had removed by enucleation from the anterior wall of the cervix and os uteri of a multipara who had been in labour for twelve hours when he was called to her. The uterus was firmly contracted around the fœtus, and the child's head was at the brim of the pelvis, pressing against a firm tumour which occupied the whole upper vagina, so as to render it difficult to reach the head. Delivery could not be accomplished by version or by the use of the forceps, and it was believed that, under the circumstances, perforation was not likely to be more useful. A small incision was made with a bistoury into the lower portion of the tumour, and the opening was distended, and the tumour enucleated without any hæmorrhage. The child was born alive. The mother showed no evidence of shock.

Dr. J. J. PHILLIPS read a paper On a Case of Prolapsus Uteri, which ended fatally soon after admission into Guy's Hospital, from the pressure of the procident uterus on the ureters, leading to their dilatation, and to suppuration of the kidneys. After referring to the anatomical connexion of the neck of the uterus and the vagina with the bladder, he pointed out that urine might be retained in a prolapsed pouch of bladder, and lead not only to inflammation of its mucous lining, but also to the extension of that inflammation, and to death by pyelitis. Or the ureters, as they descended with the prolapsed bladder in the anterior portion of the hernial mass, under the pubic arch, were liable to be pressed upon, as in the case related. Probably the reason why the ureters escaped pressure in the great majority of cases was, that the vaginal and vesical prolapse took place in a very gradual manner, and that the ureters became elongated and adapted to their altered position; and also that in most cases of procidentia, not only was there a wide pubic arch, but also much laxity of the soft parts. Notwithstanding the extreme rarity of the case, such a complication of prolapsus uteri was not to be overlooked.

Dr. RASCH read a paper On Air in the Vagina, and arrived at the following conclusions:—1. No air enters the vagina of a female placed on her back. 2. In the prone position the abdominal walls and the contents of the abdomen fall outwards, and cause a diminished pressure in that cavity. If the vaginal orifice be open, air will enter, and so compress the expanded intestinal gases to their previous volume. 3. The force with which it enters, and consequently the quantity which distends the vagina, varies with the resistance offered by the abdominal walls to the gravitation and the degree of mobility of the viscera. 4. In replacing the female on her back, the abdominal walls and contents fall inwards, and expel the air again from the vagina. 5. Air will not enter the uterus unless distended by fœtus, hand, instruments. 6. In the position on the back we have an efficient means of keeping the air out of the vagina and uterus, and so preventing the deleterious consequences ascribed to its action on the vaginal and uterine contents. 7. In abscesses communicating with the upper part of the vagina this will be of equal importance.

Dr. HICKS could not entirely assent to the first proposition. If the uterus be prolapsed, and the patient laid down, the uterus receded a certain distance upwards; if so, then, the vulva being open, air could enter.

Dr. ROUTH said the causes specified by the author were in action in all women. Why, then, was the disease so rare? A reversed vermicular action of certain mucous membranes was admitted. Why should it not occur in the vagina? The kinometer showed vaginal inspiration and expulsion of fluid or gas in every woman. He had found this rare disease mostly in women of sedentary habits, not in those who presented the conditions most favourable to suction of air upwards into the vagina, such as cooks and charwomen used to the stooping posture in scrubbing floors.

Dr. Gervis said that Dr. Routh had overlooked the condition laid down as essential—viz., that in addition to the force of gravitation acting upon the abdominal viscera in the semi-prone position, the vaginal inlet must be open, and in stooping this condition was not necessarily fulfilled. He advocated the position on the back in post-partum hæmorrhage.

Dr. Heywood Smith referred to the rarity of the condition described by Dr. Rasch. Its presence is more frequent in cases where the upper part of the vagina has been rendered abnormal by any cicatrices, by any version of the uterus, or shortening of the cervix uteri. After some remarks from the President and Dr. Murray, Dr. Rasch replied.

Dr. Routh read the particulars of a case of Bilocular Uterus, the true nature of which was made out after some difficulty. The patient suffered from dysmenorrhœa, but was relieved by treatment.

Dr. Rogers read the history of a case in which the uterus and the vagina were divided by a septum. The vaginal septum gave rise to great pain *in coitu*, which necessitated its division.

Dr. Willshire remarked that this condition might explain some of the cases of superfœtation.

Dr. Phillips exhibited a Bifid Uterus, the division being indicated by a moderate notch.

The Society then adjourned till October.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday, September 22, 1870 :—

Huggins, Samuel Tillcott, Banbury.

At the preliminary examination in Arts, held at the Hall on September 23 and 24, 107 candidates presented themselves, of whom 38 were rejected, and the following 69 passed and received certificates of proficiency in general education—viz., in the first class in order of merit :—

First: Robert John Price. *Second:* Frederick Worrell Friend and Harold M. Powell. *Third:* Richard Randell William Oram. *Fourth:* James Arthur Hardy, Edward John Henderson, and A. Stanford Morton. *Fifth:* George Black Butter and Robert William Collet. *Sixth:* Harvey Gosset Brown, Francis Arthur Hallsworth, Ernest Carr Jackson, Robert Biekersteth Miller, and Howard Douglas Stewart. *Seventh:* Edward William Lane. *Eighth:* Beresford Robert Bullen.

In the second class, in alphabetical order, viz. :—

Aitkens, John Alexander.
Allen, John Davis.
Battams, James Scott.
Bayley, Charles Scot.
Benton, Samuel.
Black, James.
Boyd, Percy C.
Bynoe, Reuben Augustus Louis.
Cheyne, Edward.
Clark, Wm. Theobald Blanton.
Coates, Harcourt.
Cobb, Robert.
Dennis, Augustine.
Field, Charles Augustus E. A.
Franklin, Charles Harris.
Greenish, Robert W.
Griffiths, Cecil Niel.
Groves, Henry Edward.
Guy, William.
Hardwick, Frederick S.
Hastings, George.
Hayman, Frederick Dell.
Heslop, William John.
Hood, Francis E. C.
Hopcroft, Thos. Henry.
Hope, James William.
Hopkins, Joseph.
I'Anson, Welby.
Jarrett, Michael Lewis.
Laughlin, Edward Mackenzie.
M'Donogh, Patrick James.
Mackenzie, John.
Macready, Jonathan.
Maples, Reginald.
Miles, George Edward.
Noott, Henry C.
Norman, Reginald.
Otway, Charles J. C.
Outhwaite, Wm. James.
Parker, George Roger.
Pickering, Chas. F.
Robillaird, Thos. John.
Sawyer, Henry.
Seatliffe, Arthur Wm.
Smalley, Herbert.
Smith, Winckworth T.
Stephens, Thomas Henry.
Sykes, Jno. Fredk. Jos.
Taylor, Chas. Vernon.
Vinter, John Henry.
Walker, William Frederick.
Warrillow, Edwd. Sadler.
Wharry, Robert.

NAVAL APPOINTMENT.

Admiralty.—George Moore, M.D., has been promoted to the rank of Staff Surgeon in her Majesty's Fleet, with seniority of August 17, 1870.

BIRTHS.

Baines.—On September 23, at 11, Cranley-place, Onslow-gardens, S.W., the wife of Matthew Baines, M.D. Lond., of a daughter.

Byles.—On September 26, the wife of Dr. Jas. C. Byles, 2, Victoria-park-road, of a son.

Chaplin.—On August 29, at Jerusalem, the wife of Thomas Chaplin, M.D., of a daughter.

Spurway.—On September 20, at Quebec, Canada, the wife of Charles Spurway, Assistant-Surgeon, Royal Artillery, of a daughter.

MARRIAGE.

Massei—Best.—On September 21, at St. Bride's Church, Liverpool, by the Rev. P. S. O'Brien, LL.B., Luigi Vincenzo Massei, M.R.C.S. Eng., Golborne, to Emma Elizabeth Mary Best, Liverpool, daughter of T. C. Best, Esq., and niece of the late George Pennell, Esq., of Southport.

DEATHS.

Morris, Mary Grace, the dearly beloved wife of Henry Morris, ex-Army Medical Staff, at Brighton, on September 25.

Overton, Georgiana Jane, wife of John Overton, Surgeon, of Coventry, on September 13, in her 67th year.

Proctor, Sidney Edmund, eldest son of Sidney Edmund Proctor, M.R.C.S.E., etc., at Ventnor House, Aston, Birmingham, of scarlet fever, on September 17, in his 7th year.

Walker, Eliza, the beloved wife of Joseph Walker, M.D., 22, Grosvenor-street, on September 25.

Walker, Dr. William, of Essex-road, Islington, while on a visit to his friend, R. World, M.D., of Clyde-villa, Lytton-road, Barnet, on September 19, aged 57.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Bodmin Union.—Medical Officer for the Second District of the above Union. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to the Clerk of the Union on or before October 7.

Central London District School.—Resident Assistant Medical Officer; must be duly qualified in accordance with the General Orders of the Poor-law Board. Applications and testimonials to Samuel Heath, Esq., Clerk to the Board, 10, Basinghall-street, on or before October 4. Selected candidates will receive notice that their attendance is required.

Dorset County Hospital.—House-Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to the Chairman on or before October 19.

Jersey General Dispensary.—A Resident Visiting and Dispensing Medical Officer possessing a double qualification wanted by October 1. Candidates must be unmarried. Applications to be forwarded to the Secretary, the Rev. P. A. Le Feuvre, Oak Walk, Jersey.

Kells Union.—Nobber Dispensary District.—Medical Officer; must be duly qualified and registered. Applications and testimonials to Mr. John M'Evoy, hon. sec., Muff, Nobber, Co. Meath, on or before October 7, the day of election.

Kiodermınster Infiamary.—House-Surgeon and Secretary; must be unmarried and have a Surgical qualification. Applications and testimonials to the Secretary on or before October 5. Election on the 12th.

Kingsbridge Union.—Medical Officer for the Blackawton District. Applications and testimonials to W. Jarvis, Clerk, on or before October 1.

North Riding of Yorkshire.—Gaol Surgeon for the House of Correction at North Allerton. Candidates must be duly qualified and registered. Applications and testimonials to the Rev. John Field, West Rounton Rectory, near North Allerton, on or before October 8. Election on the 18th.

Northumberland County Lunatic Asylum, Morpeth.—Assistant Medical Officer; must be duly qualified and registered. Applications and testimonials to Mr. Wilson, Medical Superintendent, on or before October 3.

Queen's Hospital, Birmingham.—Resident Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary on or before October 20th.

Sevenoaks Union.—Medical Officer for the Fifth District. Candidates must be registered and duly qualified in accordance with the General Orders of the Poor-law Board. Applications and testimonials to George F. Carnell, Esq., Clerk, Sevenoaks, on or before October 4. Election the following day.

Snetland.—Medical Officer for the parishes of Mid and South Yell. Applications and testimonials to Mr. John Walker, Mayfield-house, Bressay, on or before October 1.

Worcester Amalgamated Friendly Societies' Medical Association.—Medical Officer; must be M.R.C.S. and L.S.A. Applications and testimonials to Mr. Smith, Portland-place, Charles-street, Worcester, on or before October 11.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Blything Union.—Dr. Girdlestone has resigned the Eighth District; area, 10,404; population, 2087; salary, £39 per annum.

Bodmin Union.—Mr. Horace V. Sandford has resigned the Second District; area, 13,700; population, 2661; salary, £30 15s. per annum.

Great Ouseburn Union.—Mr. William T. Crawford has resigned the Green Hammerton District; area, 15,384; population, 2695; salary, £26 per annum.

Malmesbury Union.—Mr. George Salter has resigned the First District; area, 16,909; population, 5746; salary, £70 per annum.

Ongar Union.—Mr. Joseph Foster has resigned the Second District; area, 6309; population, 1396; salary, £55 per annum.

Wolstanton and Burslem.—Mr. Charles Davenport has resigned the Tunstall District; area 5140; population 22,466; salary £65; and the Workhouse; salary £60 per annum.

APPOINTMENTS.

Bingham Union.—Joseph O. Brookhouse, F.R.C.S. and M.R.C.S. Eng., M.D. St. And., L.S.A., to the West District.

Droxford Union.—Richard Bligh, M.R.C.S. Eng., L.S.A., to the Droxford District, and the Workhouse.

Uttoxeter Union.—J. McKenzie, M.R.C.S. Eng., to the Rocester District.

By command of the Queen, Dr. Hoffmeister, of Cowes, has taken his departure for Darmstadt, to attend the Princess Louise, of Hesse, whose accouchement is daily expected.

The cost of the new Infirmary at Highgate is £49,659 8s. 6d.

The British Consul at Nice, writing on September 20, states that both Nice and Mentone are in a state of perfect tranquility.

Foot and Mouth Disease (*Eczema epizootica*) is rife in many parts of England. More than 2400 cases are reported in Somerset.

A telegram from Madrid, dated September 22, states that yellow fever has broken out at Barcelona. There have been 1000 seizures, one-third of which have proved fatal. The fever is supposed to have been introduced from Cuba by the steamer *Maria*.

Several fatal cases of hydrophobia have occurred at Nottingham, and Dr. Tyndal Robertson, in a letter to the local authorities, points out that death might probably have been prevented had early excision in each case been performed.

Royal College of Surgeons.—The annual financial report of this Institution has just been published, from which it appears that, from Midsummer-day, 1869, to Midsummer-day, 1870, the receipts amounted to £12,453 7s. 1d., and the expenditure to £11,986 9s. 6d., leaving a balance in favour of the College of £466 17s. 7d. The principal source of income appears in the fees paid by the candidates for the diplomas of the College—viz., £9871 12s. The judicious investments made in the purchase of freehold property adjoining the College is shown in the large sum of £936 10s. 6d. derived as rent. The dividends on £34,000 invested in the Government funds amounted to £1057 10s. The fees on election into the Council and Fellowship yielded £189. The trust funds produced £383 2s. 10d.; this included the sum of £94 10s.—the honorarium returned by Professor Erasmus Wilson for his course of lectures, and which he requested might go towards the payment of the expenses incurred for providing cases for the dermatological collection. The disbursements, which amounted to £11,986 9s. 6d., appear under several items, the principal, of course, being for fees to members of Council, the several courts and boards of examiners, including also those paid to the College of Preceptors (£411 3s.); the total amounted to £4426 3s. 6d. To the large staff of officers and servants in the College, Museum, and Library departments the sum of £3107 13s. 8d. was paid for salaries and wages. The Government received for taxes and stamps £1045 17s. 3d. For pensions there appears the sum of £489 4s. 6d. The following is a summary of the receipts for the collegiate year, viz.:—College income, £12,070 4s. 3d.; trust funds, £288 12s. 10d.; Professor Wilson's donation, £94 10s.—total, £12,453 7s. 1d. Summary of disbursements:—College purposes, £11,821 17s. 1d.; trust funds, £164 12s.—total, £11,986 9s. 6d.

St. Thomas's Hospital Medical and Surgical College.—The following distribution of prizes for the past Session will take place on Saturday, October 1, 1870, at 2 o'clock p.m., by Francis Hicks, Esq., treasurer, in the chair: —*Third Year's Students:* A. J. Drake, Kingsclere, College prize £30 and hon. certificate; J. S. Slater, Bath, College prize £20 and hon. certificate; E. Sergeant, Preston, College prize £10 and hon. certificate. *Second Year's Students:* B. Addy, West Deeping, College prize £30 and hon. certificate; W. Garton, St. Helier's, College prize £20 and hon. certificate. *First Year's Students:* J. Boulger, Gravesend, Sir Wm. Tite's Scholarship and hon. certificate; A. V. Maybury, Frimley, College prize £20 and hon. certificate; A. H. Laver, Rayleigh, College prize £10 and hon. certificate. "*Physical Society's*" *Prizes:* R. Cory, Carlisle, Society's third year's prize and hon. certificate; S. Osborn, Brixton, Society's third year's prize and hon. certificate; B. Addy, West Deeping, Society's second year's prize and hon. certificate; W. Garton, St. Helier's, Society's second year's prize and hon. certificate. *Surgery and Surgical Anatomy:* E. Sergeant, Preston, Cheselden Medal, founded by George Vaughan, Esq. *For General Proficiency and Good Conduct:* J. S. Slater, Bath, Treasurer's Gold Medal.

Fatal Accident.—The Liverpool coroner on Tuesday held an inquest on the body of a married woman named Mary M'Laren. The poor creature, whilst in a state of delirium from fever, jumped from the bed-room window, was impaled upon the palisades beneath, the spikes of which entered her body and caused her death.

The Contagious Diseases Act.—A Police Magistrate's Opinion of the Act.—In reply to a complaint made to Mr. Pattison, the presiding magistrate at the Greenwich Police-court, on Tuesday, the 21st ult., by the secretary of a society for the rescue of fallen women, his worship said:—"The Examining Medical Officer was appointed by the Home Secretary, and it was not likely, he thought, that any person would be ordered to be taken to the Hospital unless Hospital treatment was required. As regarded the Act itself, in reference to the working of which he received numberless letters from individuals, he desired it to be publicly stated that in that district, especially in Woolwich, it had been of great benefit, and he considered it one of the most salutary measures the Legislature had ever passed."

"The Peculiar People."—On Thursday, the 22nd inst., John and Elizabeth Saville were tried at the Central Criminal Court for having caused the death of their child, aged 7 months. Their child suffered from diarrhœa, and whilst in that state they neglected to call in Medical assistance, but simply anointed it with oil and prayed to God for its recovery. In answer to the judge, Dr. Riley, a Medical witness, said that he could not undertake to say that the child's life would have been saved if a Medical man had been called in. The judge thereupon directed an acquittal, there being no proof that death resulted from the want of Medical aid, and no other neglect was imputed.

"Righteous Baby-Farming."—At the Social Science Congress, held at Newcastle on Thursday last, Mrs. Meredith, of London, read a paper before the Ladies' Committee, presided over by Lady Bowring, entitled "Righteous Baby-Farming." Her proposition was, that "the nurses of illegitimate children should be required to have a licence to undertake their management. The licensed nursing, she said, would not cause any more children to be chargeable on the rates than at present. The system would relieve the workhouses from the presence of the children, and relieve the children from the evil of workhouse infancy. Licensed nursing would distribute the children, and morally as well as physically improve their state. The licences should only be removable on the recommendation of an inspector."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dum Spiro Spero.—Next week.

Dr. Weber (Jokomanio, New Zealand).—Your letter with enclosure received with thanks.

Valetudinary.—Mrs. Appleton's address is Portsdown House, Clifton-road, Maida-vale. Cairo is nearer by sea than Nice or Mentone, and more free from Italo-French political complication.

Believers in the germ theory may get a hint from a passage in one of Count Bernstorff's letters from the seat of war. He is describing an interview with a German, who was wounded in the chest: "I held a cigar to him. 'Can you smoke?' 'Yes; if only I had a cigar.' He lighted it, and puffed contentedly away, *while I watched the smoke issuing from the wound in his chest*, and mourned that neither the mother nor the country he so yearned for would ever see him again." Does tobacco smoke destroy germs?

The Condition of the Army Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A paragraph in your columns of the 24th instant, being calculated to convey to the Profession, and especially to its junior members, an erroneous idea of the position—as regards promotion—which those Assistant-Surgeons will occupy who may enter the service consequent on the proposed examination in February next, I venture to address you on the subject.

For the last few years promotion has been so slow that the junior Assistant-Surgeons now in the service cannot reasonably hope to be promoted at all.

They will simply have to serve as Assistant-Surgeons for five-and-twenty years, unless a favourable revolution takes place in the service, of which there is, at present, no prospect whatever.

We have hoped for that, against hope, too long, and have at length resigned ourselves to our fate—that of being subordinates to the end of the chapter—not with contentment certainly, nor with benefit to the State—for ill-treatment can never produce zeal—but with an amount of submission that ought to be very comforting to those whom adverse fortune has appointed to be our rulers.

How, then, I would ask, can the fact of "there having been no admission since October, 1868," make the entry into the service after the February examination one "under comparatively favourable circumstances as regards promotion"?

As the observations to which I have taken exception have appeared in a conspicuous part of a very widely-circulated and most influential paper, I beg, in justice to the unfortunates already in the service, as well as to those whom encouragement from you would no doubt bring forward, that this, if not considered otherwise unworthy, may find an equally honourable place. I am, &c. Old, but Unpromoted.

A Member.—The library of the College of Surgeons will be reopened this day (Saturday), and the museum on Monday next.

A Provincial Student.—Having passed the Arts examination at the Hall last week, you can commence your Professional studies at once.

St. Guy's.—The registration at the College commences this day (Saturday), and will terminate on Saturday, the 15th inst.

An Old Member.—The late Mr. Richard Welbank was elected a member of the Council of the College of Surgeons in 1844 with Messrs. Scott and Cutler.

Sanitary Museum at Brighton.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me again to remind those of your readers who are interested in sanitary inventions, that samples or models of all such inventions will be gladly received for the Sanitary Department of the Brighton Town Museum in the Pavilion.

This department was organised by me two years ago, and I shall be glad to receive for it any specimens of new disinfectants, ventilating contrivances, models of improvements in drainage-traps, and other sanitary inventions. The museum is visited continually by a large number of persons. I am, &c.

Wm. E. C. Nourse, F.R.C.S.,
Surgeon to the Brighton Hospital for Sick Children.

11, Marlborough-place, Brighton, September 26.

S. S.—It may be obtained by order of any bookseller.

R. N. P. will be allowed to register. He is not obliged to pass the preliminary examination.

A. B. C. will find the case stated in full in Weightman's "Laws Regulating the Medical Profession."

Nemo.—If no agreement were made, three months' notice can be demanded.

Much-Needed Medical Reform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—We have lately heard not a little about the urgent necessity for improving Medical education, but what have we heard about the removal of abuses which lower the status of the Profession, and which could be remedied without a particle of difficulty or a month's delay? What can be more unjust than that men of note, far advanced in years, and in the enjoyment of large incomes, should hold for years half a dozen appointments apiece, the distribution of which among younger men would be an invaluable means of giving the latter experience, and at the same time helping them to attain a good position earlier than they would otherwise do? Some of the chief promoters of the reforms in question are flagrant offenders. What can be worse than that highly respectable Practitioners should condescend to compete with all their energy for such posts as that of examiner to a local branch of some second-rate assurance office? I lately heard of a Surgeon of some position volunteering to examine at the rate of three half crowns a head, and by means of a private arrangement he effected his purpose and cut his rivals out. What, lastly, can be worse than the low salaries not seldom given by really wealthy country Surgeons to well-qualified assistants? and what more scandalous than the employment of drunken, ignorant, idle, profligate men by Surgeons of some respectability because they can get the services of such persons for a comparative trifle? I am, &c.

An Ex-University College Man.

COMMUNICATIONS have been received from—

Mr. Hardie; Mr. Maunder; Mr. Nourse; Dr. E. Long Fox; Dr. Brodie; Dr. Bell Taylor; Dr. Jencken; Old but Unpromoted; Mr. Heath; Mr. Bader; Mr. Worth; Dr. Sealy; Dr. Kidd; Mr. N. Alcock; Dr. De Hartsen; Dr. Playfair; Dr. G. E. Day; Dr. J. Russell; Mr. J. Chatto; Dr. Tempest Anderson; Dr. Bakewell; Dr. B. W. Richardson; Miss Overton; Dum Spiro Spero; Dr. Fleming; A Physician; Mr. Proctor; An ex-University College Man; Mr. Whitfield; Mr. Caeter; Dr. Foster.

BOOKS RECEIVED—

Nicholson's Text-book of Zoology—Corfield on the Utilisation of Sewage—The Satires of Horace, by Dr. Andrew Wood—Calendar of University College—Medical Temperance Journal—Heath's Minor Surgery and Bandaging.

NEWSPAPERS RECEIVED—

Pharmaceutical Journal—The Shield—Isle of Wight Observer—Medical Press and Circular—Canada Lancet (September)—New Zealand Herald—The Bruce Herald—New York Medical Gazette.

APPOINTMENTS FOR THE WEEK.

October 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

3. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

4. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

Obstetrical Society (Council Meeting, 7½ p.m.), 8 p.m. Dr. Martin (Melbourne), "Notes of a Case of Solid Fibrous Tumour of the Right Ovary; Ovariotomy; Recovery." Dr. Hodder (Toronto), "Ovarian Multilocular Tumour; Ovariotomy; Death." Dr. Copeman (Norwich), "On Tumours of the Pelvis obstructing Delivery." Mr. E. J. Lowe (Burton-on-Trent), "A Case of Hæmorrhage from Retained Placenta after Abortion, terminating fatally."

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

7. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 24, 1870.

BIRTHS.

Births of Boys, 1092; Girls, 1082; Total, 2174.
Average of 10 corresponding weeks, 1860-69, 1968·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	634	578	1212
Average of the ten years 1860-69	612·5	583·0	1195·5
Average corrected to increased population	...	...	1316
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	1	34	1	...	1	3	3	9
North ...	618210	4	...	40	3	2	5	11	2	10
Central ...	383321	2	3	11	1	...	1	3	1	3
East	571158	4	2	22	1	3	2	3	3	8
South... ...	773175	4	2	57	1	8	2	2	3	16
Total	2803989	15	8	167	7	13	11	22	12	46

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·162 in.
Mean temperature	54·5°
Highest point of thermometer	68·9°
Lowest point of thermometer	39·6°
Mean dew-point temperature	50·2°
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 24, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Sept. 17.	Deaths Registered during the week ending Sept. 17.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2174	1212	68·9	39·6	54·5	12·50	0·00	0·00
Portsmouth ...	122084	12·8	66	34	70·6	35·2	53·5	11·95	0·00	0·00
Norwich	81087	10·9	50	37	68·5	40·2	53·7	12·06	0·00	0·00
Bristol	171382	36·6	136	104	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	70	12	71·8	41·2	55·6	13·11	0·00	0·00
Birmingham ...	369604	47·2	228	124	70·5	39·5	55·0	12·78	0·01	0·03
Leicester	97427	30·4	75	40	72·2	38·7	55·7	13·16	0·00	0·00
Nottingham ...	88888	44·5	88	34	71·8	42·6	56·7	13·72	0·00	0·00
Liverpool	517567	101·3	362	323	70·0	45·9	57·2	14·00	0·05	0·13
Manchester ...	374993	83·6	272	192	71·8	48·5	57·9	14·39	0·03	0·08
Salford	121580	23·5	122	71	72·5	44·9	57·8	14·33	0·02	0·05
Bradford	143197	21·7	159	74	67·6	44·8	56·0	13·33	0·01	0·03
Leeds	259527	12·0	150	129	68·0	44·0	56·4	13·55	0·02	0·05
Sheffield	247378	10·8	204	91	70·5	42·0	55·3	12·94	0·00	0·00
Hull...	130869	36·7	85	35	67·0	34·0	51·5	10·83	0·00	0·00
Sunderland ...	100979	30·5	92	41	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	122	47	64·0	49·0	55·9	13·28	0·00	0·00
Edinburgh	178970	40·4	127	77	69·7	43·0	57·1	13·94	0·00	0·00
Glasgow	468189	92·5	337	197	69·0	38·5	54·9	12·72	0·00	0·00
Dublin (City, etc.*)	321540	33·0	181	122	76·4	39·5	59·1	15·05	0·00	0·00
Total of 20 Towns in United Kingd'm	7216325	33·8	5100	2996	76·4	34·0	55·8	13·22	0·01	0·03
Paris—Week ending Sept. 21	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Sept. 17 ...	622067	167	...	281	...	...	57·7	14·25	...	...
Berlin—Week ending Sept. 22 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·162 in. The highest barometrical reading was 30·20 in. on Monday and Friday, and the lowest was 30·13 in. on Thursday.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

THE INTRODUCTORY ADDRESSES DELIVERED AT THE OPENING OF THE LONDON MEDICAL SCHOOLS.

CHARING-CROSS HOSPITAL.

The Introductory Address was delivered by Henry Hancock, Esq., Vice-President of the Royal College of Surgeons, Senior Surgeon to the Hospital.

Gentlemen,—Who that has bestowed one thought upon what has been going on abroad during the last few months—who that has read the sickening details of the revolting battle-fields, the devastation of country, the destruction of homes—will not admit that science may be rendered a curse to mankind? Happily—however dark and revolting to every feeling of our nature this view may be—science is still capable of presenting a fairer, a more pleasing aspect. According to the universal law of nature, it is capable of affording alike the bane and the antidote. True it is that in the hands of the unscrupulous and ambitious it may become a curse—a cruel curse; equally true it is that by teaching and enabling man to alleviate the misery and suffering of his fellow-man it is doubly blessed—blessing him that gives, as well as him that receives.

It is for the purpose of acquiring this godlike science that you are about to enter upon your course of studies. It is for the purpose of initiating this course that I have undertaken the duty of delivering the present address. Mr. Abernethy, upon a similar occasion, welcomed his commencing students with "God help you all; what will become of you?" The answer to this question depends upon yourselves, and is comprised in the single short word—work. If you will work, you will do well; but rest assured to no other class of men does the parable of the ten talents apply more directly than it does to the student of Medicine. If you are content to idle your time—to fold your single talent in a napkin—depend upon it it will be taken away from you, and you will terminate your career in disappointment and disgrace.

I assume, gentlemen, that in making your selection you have well weighed the grave responsibilities you thereby incur. It is not mere art, it is not mere science; it is neither manufacture, agriculture, merchandise, nor property with which you will have to deal. Yours is an object infinitely greater, infinitely more elevated than these, either individually or combined. It is the study, the preservation, and the repair of that highest, noblest work of the creation, modelled in the image of his Creator—man. These considerations, whilst proving the responsibilities of our Profession, cannot fail at the same time to elevate the minds and characters of its members, and point out the road to happiness and success. The truly conscientious and right-minded student and Practitioner daily and hourly exercises the highest attributes of our nature. He has to call into play constant and untiring industry in the study of his Profession; undeviating rectitude and liberality of mind in its practice; unflinching honesty of act and purpose; sympathy with the sufferings of others; forbearance with their petulance and charity for their faults; at the same time that his own mind is chastened by the daily, the hourly experience, that with all his talent, all his labour, and all his success, there are limits which even his skill cannot overstep; that he is but human after all, that he is at best but a painstaking, intelligent agent of an all-wise and beneficent power, so that step by step, imperceptibly as it were, he is led through the contemplation of nature's works to the reverence of nature's God.

Surely this is all calculated to elevate the mind and induce thoughtfulness, energy, and propriety of conduct. It is so self-evident that to urge it upon you further would be but a work of supererogation; it must of itself imprint itself in indelible type upon your minds; therefore I shall dismiss this part of my subject with the earnest and confident hope that, as the boy is father of the man, so will every student here present be the father of the upright, respected, and prosperous future Practitioner.

What you are to do, and how you are to do it? are questions of considerable importance, and may now advantageously engage our attention for a short time.

I need scarcely remind you that this present year, 1870, has been a very eventful year in the annals of Medicine. Measures of a most revolutionary character have been considered and discussed, and although under abeyance at present, will, in all probability, be sooner or later adopted.

During the early spring, the College of Physicians, the College of Surgeons, and the Society of Apothecaries inaugurated a scheme for conjoint examination, having for its object the diminution of the number of examinations as at present required, and the substitution of a single portal of admission into the Profession; the diploma of this examination to confer the right of practising and registering upon the holder as well as the right of selecting one of the three Corporations of which to become a member.

When this scheme was so far matured as to be almost ready for submission to the Secretary of State for confirmation, it was unceremoniously set aside by the Government, who, ignoring the corporations altogether, introduced a Medical Bill of their own, by which the several corporations were deprived of all powers of granting diplomas to practise, all power of regulating the course of study as heretofore, and, in fact, transferring some 20,000 of the most intellectual and thoughtful men in her Majesty's dominions to the caprice and control of the Privy Council, or, in other words, to its irresponsible Medical adviser for the time being. This Bill, which unsettled everything and satisfied no one, after being twisted and distorted to meet contending interests, has been withdrawn; but there is no doubt that important changes will take place, and it is my duty to consider how far these changes will influence your future course of study.

You, or, at all events, the majority of those present, have already broken ground by passing what is termed "the preliminary examination." Here, again, the year 1870 has proved most eventful. The last examination at the College of Surgeons was most disastrous. Of 229 who went up, only 106 passed, and 123 were deficient in the amount of knowledge required, and were rejected, being thrown back in their Professional studies for above six months, and subjected to no slight addition to the expense of their education. This result appeared to me so lamentable and unsatisfactory, that I have taken some little pains to ascertain the cause, in the hope that, by pointing out the subjects in which these gentlemen failed, I should do good service, by directing the attention of those engaged in tuition to the matter, that they might take measures that an occurrence so unfortunate, and redounding so little to their credit, should be prevented for the future.

The subjects examined upon are arranged into two classes—compulsory and optional: the compulsory embracing reading, dictation, arithmetic, geography, grammar and composition, history, Euclid, algebra, and Latin. Of the 123 who failed, 71 failed in algebra, 52 in Latin, 31 in Euclid, 21 in history, 17 in grammar and composition, 12 in arithmetic, 6 in geography, 1 in dictation, 1 in reading.

The class of optional subjects comprises Greek, French, mechanics, chemistry, botany, zoology, and German. 2 failed in Greek out of 69; 15 in French, out of 84; 11 in mechanics out of 28. In chemistry, botany, zoology, and German there were no rejections, although 93 went in for chemistry, 5 for botany and zoology, 5 for German.

Undoubtedly several among these unfortunates may have been idle and neglectful; but, on the other hand, when we find so large a proportion as 54 per cent. rejected, we can scarcely arrive at any other conclusion than that the existing system of education in many parts of the kingdom is below the requirements of the age, and that in neglecting to make themselves acquainted with what is required from pupils at these examinations, teachers are guilty of dereliction of duty, and of great injustice to those entrusted to their care.

As may readily be supposed, every attempt to raise the standard of education has been followed by a diminution in the number of Medical students and, consequently, of Medical Practitioners.

From the year 1831 there has been a regular increase in the population of England and Wales—say, in round numbers, of 2,000,000 every ten years—hence, in the ten years from 1831 to 1841 the increase was 1,983,000; from 1841 to 1851, 2,019,000; from 1851 to 1861, 2,174,000; and it will not be unfair to calculate a similar proportion of increase for the ten years between 1861 and 1871. It may not be uninteresting to inquire how far the Profession of Surgery has kept pace with this increase, and for this purpose I propose to take the average number of diplomas issued by the College of Surgeons during each of these decades. To begin with the decade 1831—41, the average was 520 per annum. In the next, or between 1841 and 1851, although the population had increased by 2,000,000, the average of diplomas issued by the College fell from 520 to 430 per annum. In the next decade, between 1851 and 1861, the average rose from 430 to 501; whilst in the decade about to close it has fallen as low as 371. So that, notwithstanding an

increase in the population of 8,000,000, and taking the College of Surgeons as the standard, the average of men entering our Profession is 149, or nearly one-third less per annum at the present time than it was forty years ago. Undoubtedly the development of railroads, the still greater development of engineering, professional and otherwise, in all its branches, and the state of the mercantile world during this period, has greatly influenced this result; but there is no denying that it has also been influenced, in a great measure, by the higher standard of education required by the examining bodies.

But to return from this digression, the Council of the College of Surgeons has recently (so recently, indeed, as yet to be scarcely known) decided unanimously, that not only the examinations, but likewise the course of instruction required for such examinations, shall undergo material alteration, by being rendered more practical and less theoretical. I would therefore crave your attention for a few minutes, whilst I endeavour to explain how these alterations will affect you. Anatomy is the first to engross our attention, for to the Surgeon anatomy is the very key-stone of his arch of study, the very corner-stone of his Surgical superstructure. It was Erasistratus who named the right auriculo-ventricular valves "tricuspid"—whether he named those on the left side of the heart "mitral" does not appear—whilst it is to Herophilus that we owe the terms "duodenum," as applied to the portion of intestine proceeding from the stomach, and "calamus scriptorius," the term still employed to denote the linear furrow at the bottom of the fourth ventricle of the brain. The study of the human skeleton, however, had already been established, for we read that as early as four centuries before the Christian era a knowledge of the human bones was deemed so all-important by philosophers of that period, that they were wont to travel from Rome to the school in Alexandria for the purpose of studying the human skeleton. The necessity for this study, so unmistakeably recognised at this remote age, obtains with equal intensity at the present day. That light, so necessary to the student of 2300 years ago, wherewith to illume his steps in that dark era of anatomical investigation, is equally indispensable to enable you, my friends, to lay a reliable, a sure foundation, whereon to build the edifice of your future knowledge and success. I am most anxious to impress this point upon you in the strongest manner that I possibly can. It is impossible to overrate its importance. During the last year 586 students presented themselves for examination on anatomy and physiology; of this number 192, one-third, or close upon one-third, were referred for three months; and I am informed upon the most reliable authority that in by far the majority of instances the cause of rejection was ignorance of the anatomy of the bones. Men have gone up who could not tell a clavicle from a first rib; others might have guessed at a femur, but as to which side of the body it belonged was a problem quite beyond their powers to solve. I am well aware that the mere systematic detail of dry bones, as taught in the schools, is necessarily extremely dry work, but it cannot be helped. You must be taught the prominences, the depressions, the processes designated by the most absurd names, and as unlike the objects with which they are compared as can well be imagined, and the more simply and the more concisely you are taught the better. But dry and uninteresting as this study may at first sight appear, it in reality presents an almost inexhaustible field of interest and instruction, if you will only look below the surface. Do not rest satisfied by being taught, but endeavour to teach yourselves, and in the quietude of your own rooms take any one bone—I care not which—and, having mastered the several details already alluded to, ask yourselves the questions, In what part of the body is this bone placed? what has it to do in that situation? and how is it adapted to perform its functions? Study not the external configuration of a bone only, but its internal structure also, and see how admirably that internal structure is designed to fit it for its uses. You will thus convert a mere dry routine study into an interesting and instructive amusement. You will thereby so firmly impress the shape, structure, and uses of the bones upon your memories that in the hour of trial you must succeed; and upon this subject, at all events, rejection will be an impossibility. You will the better appreciate this advice when you learn that, in accordance with the new regulations of the College of Surgeons, your examination upon the skeleton will not be confined, as heretofore, to the point of insertion of such and such a muscle, the attachment of a ligament, or the grove for an artery or nerve, but you will be exercised in practical details, especially with reference to the application of anatomical facts to Surgery, and the methods of proceeding, and the manipulations necessary to detect the effects of accident on the living subject; and I may well ask how you can possibly expect to be able to undergo such an ordeal if you do not, by careful study of the shape and peculiarity of the dry bone, acquaint yourselves with the influence it exerts on the configuration of that region of the body in which it is placed? Again, the several bones, as you will be taught, are connected together by ligaments forming joints. The rupture or yielding of these ligaments, with the consequent displacement of the joint surfaces, constitute that common accident termed dislocation. In this department you will have to explain how far any particular ligament is implicated in a given dislocation, and how far it interferes with or retards the return of the bones to their natural position. And this applies with still greater force to the next step in your studies—namely, those agents by which the bones are moved—the muscles. If you wish to know these parts, dissect them slowly and carefully. If you wish to know how the muscles ought to be dissected, go to the College of Surgeons, and see the splendid preparations contained in that Museum; and, if you are too modest to go by yourselves, let me know, and I will go with you. Make out the exact points of origin and insertion, and pay especial attention to the course of their component fibres and the consequent direction of their action; learn how certain muscles and certain combinations of muscles effect particular movements of the several parts of the body, and by so doing you will ascertain by what muscles the various dislocations are produced and the displaced bone retained in its unnatural position, and what muscles, again, it will be necessary for you to relax in order to effect its reduction. I will not dwell longer upon this part of our subject. I have said quite sufficient to prove to you that, however valuable and all-important it is for you to obtain a thorough acquaintance with descriptive anatomy, it will, *per se*, be insufficient to enable you to pass your examinations; that for the future you must also acquire a sound knowledge of the action of the several parts, and of the influence they exert, in a practical point of view, on the animal economy in health, accident, or disease. You will have to attend this class for the same time as heretofore—viz., lectures on anatomy during two winter sessions and dissections for the same period.

Pass we now on to the class of physiology. Here you inquire into the use, growth, and minute structure of the several tissues of the body. You trace the works of Nature through every gradation of their development; you define the limits between the organic and inorganic kingdoms, the connexion between the animal and vegetable kingdoms, and trace out the latter, from the cylindrical corpuscle (panhistophyton) of Lebert to that wonderful and complex piece of machinery—man. You will here follow out the process of development, from the mere germinating spot or cell to the full-grown embryo. You will learn the functions of the brain and nerves. You will here be taught how the body is fed, how the food is converted into nourishment, the modifications which this nourishment undergoes, and how, thus modified, it is circulated through every part of the body; in a word, you will have brought in review before you the functions of every part and every organ of the body, and the relation which each bears towards the other.

In this class, important alterations are decreed. Instead of attending systematic lectures upon physiology during two winter sessions, as heretofore, you will, for the future, be required to attend these lectures during one winter session only; but you will also have to attend, during another winter or a summer session, a practical course of general anatomy and physiology, consisting of not less than thirty meetings of the class, where you must individually perform the necessary experiments, manipulations, etc.

Fortified by your studies of the structure and functions of the human body, you will next have to attend your lectures on Surgery. Here, again, important changes are made. You formerly had to attend lectures on the principles of Surgery during two winter sessions—now you will have to attend such lectures during one winter session only; but instead of the second, you will have to attend a course of practical Surgery, occupying a period of not less than six months, in which course each pupil is to be exercised practically in the following details:—

(*a*) The application of anatomical facts to Surgery on the living person or the dead body.

(*b*) The methods of proceeding, and the manipulations necessary, in order to detect the effects of disease or accident.

(*c*) The performance, when practicable, of the operations of Surgery on the dead body.

(*d*) The use of Surgical apparatus.

(*e*) The examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy.

This course of Practical Surgery may be attended either prior or subsequent to the course on the principles of Surgery; so that in this, as in that on the Principles of Surgery, you will still have the invaluable instruction of your friend Mr. Canton, as he need not be engaged upon both courses at the same time, but he may, if he desires it, give either singly in alternate sessions—an arrangement he will in all probability adopt. The other subjects in the curriculum of your studies remain the same, with the exception that when a candidate shall have passed satisfactorily in chemistry in his preliminary examination before entering the schools, he will not be required to attend any additional lectures on that subject. As regards Hospital practice, you will have to attend the Practice of Surgery during three winter sessions, of six months each, between October 1 and March 31, and two summer sessions, of three months each, between May 1 and July 31, in each year. You will also be called upon to produce a certificate of having been individually engaged, at least twice in each week, in the observation and examination of patients in a recognised Hospital or Hospitals, under the direction of a recognised teacher, during not less than three months; and this is to be done at an early period of your attendance upon Hospital Practice. This rule is not restricted to the in-patients', but applies equally to the out-patients' department.

You must also produce certificates of having attended clinical lectures on Surgery during two winter and two summer sessions, on Medicine during one winter and one summer session, of having been a dresser during six months, and of having attended post-mortem demonstrations during the whole period of your Hospital Practice.

I have considered it my duty to enter thus at length on these topics, even at the risk of proving tedious, partly because, from their recent confirmation and their non-publication, they have not been noticed in our prospectus, and I feared that you might experience difficulty from not being acquainted with what will be required from you to enable you to obtain your diplomas; but I have done so with another object—that I might here express the warm feelings of gratitude which we, as teachers, and all those who take an interest in the welfare of this school, entertain towards the governing body of the Hospital for the extreme promptitude and liberality with which they have enabled us to meet and provide for these important alterations and extended requirements on the resources of our school. Never was that trite axiom, "Bis dat qui cito dat," more strongly exemplified than it has been by this body of gentlemen, for I will not conceal from you that, had it not been for their promptitude and decision, our resources, for this session at all events, would have been lamentably inadequate to meet the claims upon them.

I have already alluded to the recent date at which these new regulations were passed or decided upon, and, although no time was lost in the matter, it is barely ten weeks since Mr. Few, the respected treasurer of the Hospital, was first informed of the position in which our school and Hospital were thereby placed, and of the inadequacy of the then existing arrangements. The number of beds has been increased to 150, accommodation for additional nurses has been supplied, a new chemical laboratory has been built, a new and large dissecting-room, a new museum, an enlarged post mortem-room, a special room for microscopical studies, convenient rooms for the lectures have been provided. Nor have the comforts of the students been neglected, since the alterations comprise a new and enlarged library and reading-room, locker-rooms, lavatories, etc., so that the school department of the Charing-cross Hospital, from having been the most inadequate and inconvenient, may now fearlessly assert its own position among the similar competing establishments of this metropolis.

In making this observation, I would guard myself from the supposition of being guilty of the folly of comparing this Hospital, for architectural beauty, wealth, or magnitude, with such splendid institutions as Guy's, St. Bartholomew's, or the new St. Thomas's Hospitals; neither do I here intend to enter upon the disputed question whether a student can learn his Profession better at a large or a small school; for although you gentlemen will have the opportunity of testing the advantages of the small, I trust that your sons—your successors at this school—will have a like opportunity of testing a large one. What I would assert—and most conscientiously assert—(and the more so that I am no longer a lecturer in this School) is, that at the Charing-cross Hospital School of Medicine you have as good opportunities of learning your Profession as at any other school in the kingdom. You now have adequate and well-arranged school-buildings, and you have a most painstaking, conscientious, and talented staff of teachers, unsurpassed by those of any other institution in London. This, gentlemen, is no random *ad captandum* statement. Let results speak for themselves. During the last year the percentage of rejections of students from this school in the primary examination on anatomy and physiology was smaller than that of any of the schools in England, save in one solitary instance. Whilst the percentage of rejections in some schools was as high as 50, and the average of all was 30 per cent., that of this school was only 17 per cent., whilst at its more successful rival it was 16 per cent.

We have seen how deeply we are indebted to the Council for providing the necessary funds, but these funds would have availed but little had they not been judiciously expended; for this we are deeply indebted to the architect, Mr. Thomson, for the great interest and energy with which he has carried out the plans and works. Had this gentleman been one of ourselves he could not have shown greater anxiety and determination to have the alterations effected by the proper time; and, indeed, he has throughout displayed such aptitude and ready comprehension of our wants that I almost begin to doubt whether he may not, at some time or other, intend to become a candidate for the chair of anatomy or Surgery.

Having thus endeavoured to point out to you the course of study which you will have to pursue, let me, in conclusion, beg of you to remember that you have now entered upon a very serious, but a most noble, Profession. Recollect that, having done so, you have become trustees of its honour and reputation. Recollect, also, that as every, even the smallest, portion of an edifice contributes to the stability and perfection of the whole, so can the conduct of the youngest student add to or detract from the good fame of our whole body. Let your career as students be characterised by a spirit of investigation, persevering industry, unswerving honesty of purpose, and self-reliance. Do not depend for success upon the assistance or countenance of others, but seek it in the exercise of your own good sense and independent exertions. Be regular in your attendance and respectful to your teachers, but do not accept their teachings as infallible dogmas, not to be questioned nor doubted, but, as far as you are able, weigh them, sift them, analyse them, and if you still entertain doubt, ask for further information, but do not rest satisfied until your doubts are removed. The year 1870 is not the year 1559, when a Doctor of Medicine of Oxford was summoned before the College of Physicians here in London, and threatened with imprisonment if he did not within a certain time give a satisfactory reply to an accusation of a Court Physician "that he had stated that Galen was wrong." This is essentially a time for the exercise of thought and individual action.

Such is the field; such are the opportunities before you. If you will grasp them; if you will only work, and work earnestly and persistently, not only as students, but as Medical Practitioners, there will not be the slightest reason why you should not, one and all, attain the highest walks of your Profession, whilst at the same time you will add lustre to the reputation of your Alma Mater.

GUY'S HOSPITAL.

ADDRESS to the students of Guy's Hospital, by Mr. C. Bader:—Before offering suggestions as to the mode of passing through your Medical career, allow me to say a few words about Guy's Hospital itself. The Hospital in a few months will have the largest number of beds among London Hospitals. Though too much material may become a disadvantage to the student, and one case well observed be of more use than any number of the same kind of cases carelessly looked into, yet numerous cases, simultaneously present in a Hospital, offer great advantages. The teacher has a choice: he can select the case which presents most of the characteristics of a disease. The student, in a short time, not only sees the chief features of a particular disease, but, like the botanist, among a large number of plants of the same species, and in different stages of development, he acquires a rapid and thorough knowledge of the life and history of a disease. The patients, as I have often seen in the large Vienna Hospital, find it a great relief to have fellow-sufferers, who ward off the inconvenience caused by eager students. We sometimes had to forsake the pleasure of examining, for instance, a case of aneurism of the aorta, merely because the patient had already been percussed, turned about, etc., by numerous fellow-students, etc.

Guy's Hospital is not situated in a fashionable part of London; fevers and accidents are its usual neighbours. It is

surrounded by a numerous, hard-working population. The Medical student at once, and on a large scale, meets the harshest features of his work. I always remember with pleasure when, many years ago, one day, after having been in the elegant, highly-perfumed operating theatre of St. George's Hospital, with its fashionable students, I came into the old operating theatre of Guy's, the very sponges of the place seemed more grim and business-like, and infinitely more used-up. The excellent annual report published by our superintendent, Dr. Steel, will give you an idea of the scientific and practical treasures of Guy's. Years before I had the good fortune of being appointed to the Hospital, I made it my daily pleasure to visit its pathological museum. I have seen many museums in this and other countries, but have found none superior to Guy's; and as regards diseases of arteries, none its equal. Those who enter the Medical Profession are, I hope, aware that no other profession requires a larger number of general accomplishments. To be thoroughly familiar with the subjects of Surgery, Midwifery, and Medicine, before entering private practice, is a self-understood thing; but to enter the Medical Profession with the principles and manners of a gentleman, to have received an excellent general education, to be a good linguist, draughtsman, etc., to be in excellent health—able to share in, and fond of athletic sports—are details, all of which are almost as important to success in the Medical career as the Professional knowledge. Instances of excellence as a linguist, as a Greek scholar, as a draughtsman, having secured a Medical man's success in life, are of frequent occurrence.

The amount of knowledge required of the student by our examining bodies, as test of his proficiency in Medical science, is a very moderate one, and should, in the fullest sense, be complied with. Student's of Guy's Hospital, unless on special duty, should live a short distance out of town. Ten minutes' railway journey will bring you to a place where a quiet night's rest, in better air than the Borough can give, will amply reward you for the inconvenience of travelling.

The new Guy's man should study the geography of his Hospital. He should visit the wards, the laboratories, the museum, the bath rooms, kitchen, ventilating apparatus, etc.; the sight of the resources, size, and scientific treasures of his future Alma Mater will thus become a source of encouragement.

Gentlemen, while at the Hospital pray be animated by a deep, thorough sense of duty. Your health, your time, your means belong exclusively to your Hospital. Be strict with yourself in this respect, and do not think that a man in fair health, and at the time of life when the studies at the Hospital are undertaken, can work too much.

Of course you attend the lectures regularly, and do so in the order in which the Medical staff wishes them attended.

To two things especially I wish to draw your attention—first, to compete for the scholarships and prizes offered by the school: make it your motto, sooner to be beaten than not try at all; secondly, thoroughly to master the use of those instruments which you see employed at the Hospital, such as the microscope, stethoscope, ophthalmoscope, laryngoscope, clinical thermometer, etc. Do not buy books or any kind of instruments without consulting some one of the Medical staff as to what and where to get them; you will save yourself much disappointment in after life by doing so.

On leaving the Hospital. Let us suppose the Hospital career to be completed, the examinations passed safely, and the student to be ready to enter upon his Medical private career; he to be in possession of a complete series of self- and well-observed cases, and to be master of his instruments. He should carefully impress upon his mind, first, that within a few months he will have forgotten a large portion of the book-reading, chemical formulæ, etc., required for the examinations. To provide for this, he should possess the very best books with which to make up this loss, if necessary, and should also connect himself with some one at the Hospital who may keep him informed of any important work.

Secondly, he should not fail to visit Guy's whenever occasion presents itself, and go round the wards, and continually keep up intercourse with some of the Medical men of his school, so that, if any good theory or new treatment of importance should present itself, he may have the advantage of early information.

No one, whose means at all permit it, should leave Guy's without having frequented other Hospitals; for this purpose three or six months should be put apart. I cannot too much urge the importance of this. In one week the student may learn more by this plan than even at the largest Hospital in a month. Hospitals for diseases of the chest, eye, ear, skin, teeth, throat, urinary organs, fistula, and especially for children, are the places to visit. A list of the names of such Hospitals, of the hours when patients are seen and operations, etc., performed, will save time.

The liberal character of the Medical staff of these Hospitals has, in London at least, always shown itself by the readiness with which permission to be present and to learn was granted.

Additional value, time permitting, is given to these peregrinations, *extra muros*, by inquiring into the general management of the special Hospitals, their wards, laboratories, etc.

Years ago, when Mr. Salmon attended at St. Mark's Hospital for fistula, I always looked forward with pleasure to "his operating day," not alone to see the operations, but also to enjoy the exquisite cleanliness and the perfect general management of the Hospital.

I conclude with a few remarks on travelling after completion of the Hospital career. It would be an excellent thing if a fund existed, out of which those with insufficient means might be assisted towards a tour of several months into other countries. The contact with more accomplished fellow-students necessarily raises the desire of improving one's own faculties; no better use of spare time, while travelling, can be made than increasing one's store of languages, etc.

Guy's men have the reputation, all over the world, of being the Medical travellers *par excellence*. From the experience obtained from former assistants of mine, I can state that there are few parts of the globe where Guy's men are not to be found. It would be an excellent thing if, after completion of the Medical studies, some months of travelling were made compulsory.

In giving away appointments, I should, other circumstances being equal, always give the preference to the one who had travelled.

Gentlemen,—If this address does not quite answer your expectation, excuse it by the sincere desire I had in giving you what I hoped to be the best advice; it is the result of a Medical career spent in hard work. If during your stay at Guy's you are in doubt as to what course to follow at any period of your studies, if unexpected reverses threaten your Medical career, if ill-health retard your work, look upon the Medical staff not only as upon your teachers, but make them your advisers, and thus your friends. Be assured you will always find them ready to help; though their advice may perhaps at the moment not be to your taste, you will, in after life and on reflection, find it to have been the best, or at least the best-meant advice.

KING'S COLLEGE.

The Introductory Address at the opening of the Medical Classes was delivered by John Wood, F.R.C.S., Professor of Surgery, Surgeon to King's College Hospital, Examiner in Anatomy at the University of London.

After making the melancholy announcement of the recent death of Dr. W. A. Miller, and paying a brief tribute to his memory, Professor Wood referred to the objects of an introductory address, and to the changes in the staff of the College, which resulted in his occupying his present position, then proceeded to make some remarks upon the alterations which each year brought about in the principles and practice of the Medical art, notifying the direction in which these modifications are now chiefly progressing, and vindicating the Profession from the imputation of differences of opinion among its members, which it only shared in common with most others, dealing more with probabilities than certainties. He advocated a patient accumulation and classification of scientific and Medical facts, arranged upon the basis of the hypotheses most in accordance with the present state of knowledge, acted upon with a provisional and qualified assent, not pushed to extremes; and waiting for that more perfect light which is sure to arise from a just comparison of differences in conclusions, which the progress of knowledge in every branch will diminish, and finally cause to disappear. He then proceeded to welcome the newcomers to the study of Medicine, and said—"Amid the melancholy impressions made by the hideous spectacle now presented by the chief nations of Continental Europe, ravaged and made desolate by the most frightful war that has ever raged in modern times, applying the improvements of our boasted civilisation, not in the practice of the humane maxims of the Saviour by whose name it is called, but in the enormous range, deadly precision, and scientific butchery of its engines of destruction, it cannot but be a satisfaction to you that you are this day enlisting into a corps which is not armed with the murderous 'chassepot' or the death-dealing 'mitrailleuse,' but with the pain-assuaging chloroform and the comforting

bandage, with the gentle hand and the sympathising heart, helpful alike to both friend and foe, and tending those whom the fiendish passion for military glory has laid prostrate in the ruins of a late smiling land. You are, as it were, binding on your arms and, I hope, imprinting upon your hearts that glorious emblem of triumph even in death, of comfort even in despair, of the most touching compassion in pain and distress, of Almighty help in time of trouble—the red cross—more ennobled now in its saving work in the rear of armies than when raised on high in the van of battle against the infidel."

The lecturer then sketched briefly the facilities afforded by the institution and its staff for the prosecution of scientific and Medical studies, the arrangements for lectures and demonstrations, and for the practical work required by the examining bodies.

Professor Wood then proceeded to say, "The just importance attached by the regulations of the examining bodies to a regular attendance at lectures and in the dissecting rooms, we have in this College for a long time shown that we have fairly appreciated and honestly enforced, as far as practicable, by the system of marking. Until lately we were alone in so doing among the metropolitan schools, and it has been supposed by some that we suffered from this exceptional position. But we have now the satisfaction of knowing that the Medical Teachers' Association recommended some such plan applied to Hospital attendance, as best calculated to benefit our pupils and fulfil our duty to the public. Last summer this plan was applied to the Hospital attendance with a very fair prospect of success. I have great satisfaction in saying here, to the credit of our students, that no word of complaint or sign of irksomeness has been evident to me in carrying out my own share of it. It has been welcomed by the industrious man as ensuring him the credit due to him; while very shame, I suppose, restrains the lazy man from decrying an honest attempt to improve his mental condition. The best way of inducing people to follow is to take the lead in example, and the officers of this Hospital have now for many years themselves performed this duty, thus showing their sense of the important principle, that discipline must prevail in the higher before it can be enforced in the lower grades of a community; and I know not that any eccentricity whatsoever of spirit or temper in the student, whose whole time should be laid out for educational purposes, would justify a neglect of such an important training in habits of punctuality—essential to success in all professions, and especially in that to which he has devoted his life. I am aware that an opinion has been spread to some extent, that, with the great facilities now afforded by admirable books upon all the subjects of a Medical education, lectures are a mistake, schedules an abomination, and marking a totally unnecessary restriction upon freedom of action; and that men should get the information necessary to pass examinations as the American squatters get land—'when they will, where they will, and as they will.' Now, gentlemen, conscious as I am that there are here and there favoured individuals to whom there is a higher law than mere official regulations—a law unto themselves, planted in an enlightened conscience—yet I am sure that, as human nature is constituted, such men are not the rule in any profession, and I have not commonly found them in my own. I am convinced that it is good for the habits of all, whether teachers or disciples, to conform to regulations. Some who advocate the licence I have mentioned conscientiously belong, I doubt not, to the purist class; more, I suspect, have been driven impatiently to this extreme opinion from their experience of the scandalous laxity which has often prevailed in the signing of incorrect schedules, lying certificates, and bunkum testimonials; and some I have heard to use the cry as a cover for the idleness and irregularity of their own habits, 'making the worse appear the better reason,' as a canting puritan would formerly inveigh against all conformity in politics and religion. The result of such a liberty for procrastination, even with yearly-recurring pass examinations, would, I feel sure, be a general postponement of all serious application until within a few months of the examination, and a resort to charlatan grinders, who profess to put men up to passing in all the 'ologies' as deftly and easily as a conjuror dupes his admirers. And what a spectacle our noble Profession would then present to the eyes of a critical public—daily increasing in intelligence, so keen to note, and ever ready to expose the ridiculous points in a class of professional men—endued with a flimsy and superficial covering of imposing technicalities, half understood, picked up second-hand at a grinder's shop, put on in a hurry, and barely hiding the rags of ignorance and the holes of neglect. But happily our examining corporations in London, whatever may be their shortcomings in many matters, are fully alive to the importance of this subject, and are directing their attention to make the education of their licentiates as practical as possible. Only lately, in a considerable measure through the exertions of one of our own Professors, a late President of the College of Surgeons, that body have required that the course of Surgery, which I shall have the honour of commencing in this College, shall in future be partly a practical course in the use of instruments and Surgical appliances.

"And herein, gentlemen, you will, I think, at once perceive what the advantages to be derived from lectures may be made really to consist of. Your lecturer should be your practical guide through the difficulties of the subject—which, even in the most elementary, might well appal the beginner by the multitude of its details—as well as that of the books written about them. Through the midst of every branch of instruction runs a central stem, which it is difficult to distinguish, by the uninitiated observer, from its various commingling and divergent offsets, producing a similar bewildering sensation as variations from the radical melody which forms the basis of every musical air. The key-note to this it is the peculiar duty of the instructor in any science or art to strike and to keep up throughout the course. The developments that are radical are to be distinguished from those which spring secondarily from them; the branches that are sound and perfect from those which are too exuberant, doubtful, or rotten; the things that are essential from those which may be considered as ornamental."

In a practical art like Surgery, for example, the firm implantation of simple principles were of great importance, to enable the Surgeon, under the most adverse circumstances, such as a railway catastrophe or a battle, to benefit his patients by the scientific application of makeshifts, where the ordinary apparatus is not at hand. Mr. Wood condemned the manner in which charpie was used as a stuffing for wounds in Continental Surgery, maintaining that thus employed it became a means of propagating contagion, and that the simpler, less painful, and more cleanly ways of dressing in vogue in our own Hospitals were preferable. He thought that the best use that charpie could be applied to was as a material for pads in simple fractures and as sponges, first dipped into a disinfecting fluid, and burnt after being once used; and that, even for these purposes, tow was preferable. He compared the requirements of a good Surgeon with those of a good general, especially in respect to foresight and provision for eventualities; the qualities of watchfulness, coolness, courage, and rapidity of conception and execution being valuable in both, with the addition in the Surgeon of skill in manipulation in carrying out his own conceptions with his own hands; while the objects of each were very different—one being to destroy life and the other to save it. The lecturer then alluded to the various tendencies to error which he had observed in the course of his career as a teacher among Medical students, congratulating his audience upon the immense improvement in the standard of preliminary education which had been effected, and the better prepared and more prolific nature of the soil for the cultivation of scientific and Medical subjects which had thence resulted. He urged that the practice of the art of diagnostic and operative Surgery could only be lightly founded upon a familar acquaintance with the structures of the human body, and that to work perseveringly at the dead subject, and to observe attentively, is the only way to remember distinctly and usefully in anatomy. In the scarcity of subjects for dissection which unhappily prevails, it was important to make the utmost possible use of them in cultivating the art of "detecting minute differences."

The lecturer advocated the earnest study of science as a valuable preparation and training for Medical pursuits, and illustrated its direct practical bearings by allusion to the discoveries of the minute living beings which were proved to be the cause of infectious diseases among the silkworms and other lower animals. He then alluded to the opportunities afforded by the Hospital to all the students to study disease by actual experience of its effects and treatment, and said that, nowadays, it is not sufficient to *walk* the Hospital, but that the student must *work* the Hospital with zeal, industry, and perseverance, in order to pass the portals of the examining bodies, who were becoming, under the pressure of public opinion, more and more practical in their examinations. To aid him to this end, numerous and regular examinations of a practical character will be carried out in the various classes; these enable a man to compare his progress with that of others undergoing the same training, and were a guard against the imperfection of half-knowledge. He warned his hearers against the difficulties and humiliations brought about by procrastination, and

encouraged each to find out in himself what he was most fitted for, and to work up to it—not to be dismayed by failures or mistakes, but to try again; and he concluded by warning his younger hearers against the temptations which beset, in London life, the path of young men.

ST. MARY'S HOSPITAL.

Mr. Gascoyen delivered the Introductory Address, taking for his subject the present system of Medical education. Whilst admitting that great improvements had been made in the course of Medical instruction and in the examinations during the last few years, the lecturer thought that much more was needed in both before they were made as perfect as they might easily be.

He congratulated the Profession that at last there seemed to be a prospect of obtaining a similar course of instruction, an equal examination, and an uniform fee for students throughout the three divisions of the kingdom; and stated his opinion that examining Boards chosen from the present licensing bodies to conduct examinations and to grant diplomas would be preferable to a Board appointed by the Privy Council. Although strongly advocating this change, he believed that most of the present examinations were fairly conducted, and were not only fully up to the capacity of those examined, but even beyond them, and that the students as at present prepared were incapable of passing a higher test of proficiency. He thought that the students, as a body, were not so well prepared for their examinations or for the exigencies of practice as formerly, and attributed this to three main causes:—

The *first* of these was the deficient general education of so many of the students, and the habit, which was acquired at school, of neglecting elementary instruction for the sake of varied and superficial attainments, created an indisposition to master the groundwork of Medical science, and operated most injuriously upon the student.

The *second* reason was the very insufficient time allotted to the study of Medicine, whilst the number of collateral subjects and the excessive detail crowded into this limited period still further prevented adequate attention being paid to the most important.

The *third* reason was to be found in the scepticism on all matters Medical which now pervades the Profession, and which questions the treatment of the student as it does that of the patient. It has unsettled the student by questioning the utility of everything connected with our present system of teaching, and caused him to slacken in his work; whilst by casting doubt upon the curative value of drugs, he has come to regard the medicinal treatment of patients as a secondary matter, and to act as if fully impressed with the truth of the doctrine that all will come right with waiting. It has brought about a state of mind similar to that expressed by one of Dickens's characters that "there is nothing new, and nothing true, and it don't matter," which is anything but an incentive to work.

To meet these difficulties, the lecturer proposed that the preliminary examination in Arts should be made at least equal to the matriculation examination of the London University, as anything short of this would be insufficient to obtain an educational superiority on the part of the Profession; to require every student to pass an examination in chemistry, botany, comparative anatomy, and natural philosophy before he joins Medical school, and that he be at least 18 years of age; to demand four full years' attendance at the School and Hospital, and at the expiration of these to pass one other year in active Professional work as assistant to a Practitioner, House-Surgeon at a Hospital, etc., before he be allowed to register his diplomas and practise on his own account. A clinical examination was also insisted upon as a *sine quâ non*.

The waste of time, money, and energy caused by the support of so many Schools of Medicine, was commented upon, and their amalgamation advocated into *two* Medical Colleges, where the Professors should be paid such incomes as would insure the best available teaching power and attach them permanently to their chairs; whilst the several Hospitals could be used for clinical purposes as is now done.

The system of double examinations was then considered; but although acknowledged to be far superior to the former plan of single examinations, the lecturer doubted whether as yet they had been of much real service, in consequence of the tendency they have to split up the student's time into short periods, during which everything is sacrificed to those subjects in which he is about to be examined; so that when the primary examinations have been passed, the time remaining is far too short to gain more than a hasty, shallow knowledge of disease and its treatment.

The speaker expressed his strong belief in the value of lectures, and in the importance of retaining an official curriculum, as essential to the welfare of the student, his friends, and his teachers; and gave reasons why he thought the practice of requiring certificates of attendance should be continued. The aims of Medicine were briefly touched upon, and a judicious use of drugs advocated, instead of the purely expectant or stimulant treatment; and the address was concluded by offering encouragement and advice to the students, and by pointing out to them certain faults which seem to be handed down from one generation to another.

ST. THOMAS'S HOSPITAL.

After some introductory remarks and words of welcome to the entering students, Dr. Gervis proceeded to speak on the subject of success, likening it to a ladder of many steps, on which, though all could not mount to the highest, yet there were none but could make some progress in the ascent. Success, too, was a question of kind as well as of degree, and, after sketching some illustrations of its varieties, as well as of its grades, Dr. Gervis drew the same lesson from all—that though in a large proportion of the posts occupied by the Profession the amount of gold to be won might often be scanty, in no profession were there more frequent opportunities of winning golden opinions, and doing work whose reward was the approbation of conscience and the benediction of Heaven. Dr. Gervis then proceeded to give some practical advice to the students as to the mode of best avoiding too exclusive a cultivation of either branch of their education—the theory or the practice of Medicine. He enumerated the practical opportunities afforded by St. Thomas's, and, after some reference to its teaching arrangements, gave various suggestions as to the best methods of work. On the subject of lectures, Dr. Gervis observed:—"It has been somewhat the fashion of late years to depreciate the importance of attendance upon lectures. From this my own recollections of student life lead me to disagree. I still remember the very forms of expression which characterised the lectures of our various teachers—nay, the very sound of their voice still lingers in my ear. The power of the lecturer is akin to that of the speaker and preacher, and as to listen to a Disraeli or a Bright in the House of Commons, or to a Liddon or a Guthrie in the pulpit, is far more impressive than to read their speeches and sermons in print, so do I think that a lecture listened to is far more impressive than a lecture read." In conjunction with note-taking, of whose utility Dr. Gervis spoke highly, both from observation and experience, lectures were also of much service as guides for the work of the evening. After some other practical suggestions with respect to the importance of systematic attendance in the Medical as well as in the Surgical wards, the value of regular attendance in the post-mortem room, the subject of books and the sessional examinations, Dr. Gervis made some remarks on three principles of action, which he urged on students to follow as the guide of their studies and their life, the first perseverance, the second method, the third duty—the value of method was further illustrated by a quotation from Coleridge, and of duty by the remark of Lothair: "It seems to me that a sense of duty is natural to man, and that there can be no satisfaction in life without attempting to fufil it." Some words of counsel to the more advanced students, and of farewell to those leaving, were succeeded by a reference to that Parliamentary measure which, had it been enacted, would have made the year so eventful an one to the Profession. With respect to it, Dr. Gervis expressed an opinion adverse to the three Board system, but yet thought that, after the plan of the London Matriculation, local examinations could be held simultaneously in the three divisions of the kingdom, and in this way the same level of examination be everywhere maintained, and no invidious distinctions still be drawn between the value of the three diplomas. Some questions connected with the out-patient departments of the metropolitan Hospitals and the mutual relationship of school and Hospital were then alluded to. On the latter point Dr. Gervis said, "By the union of a school with the Hospital, we believe the benefits of the Hospital to be largely extended and multiplied. Not only does the Hospital get for its in-patients an amount of Medical and Surgical aid from educated and zealous attendants such as but rarely, at all events, could ordinary nursing replace, but without their help

its out-patients' Surgical and maternity departments could scarcely exist; and still further, and without any doubt, through the medium of its school, the Hospital diffuses its benefits far beyond the range of its in-patient and out-patient departments. Wherever a St. Thomas's man is to be found, whether amid Canadian snows, or Indian jungle, or Australian bush, tending the invalided at Bingen, or doing deeds of charity and daring among the wounded in Alsace or Lorraine, there does the munificence of the founders and governors of St. Thomas's reap fresh and precious fruits." Remarking on the present being the last introductory lecture to be given at the temporary Hospital, Dr. Gervis took a retrospect of the changes that had occurred in the school during the seven years they had spent at the Surrey-gardens, and concluded as follows:—"We trust that long before the dawn of another October we shall have left these temporary buildings and entered upon others, whose erection will rank among the most memorable events of the present reign. Transferred from the south side of London Bridge to the south side of Westminster; rivalling in beauty the opposite palace of the Legislature, and in interest its nearer neighbour of Lambeth, long may St. Thomas's there flourish, the pride of its governors and staff and school, and a perennial fountain of beneficence to the suffering poor of this realm. But amid all the material glory of pavilions and towers and colonnades, and of its conspicuous position in the first city of the world, let us not lose sight of the yet greater glory accruing from the memories of the past, nor forget that the Hospital at Stangate is the lineal inheritor of the fame that belonged to the Hospital in Southwark in connexion with the Surgery of Cheselden and Cooper and Cline, the Medicine of Mead and Fordyce, of Robert Williams and Roots. May it be the anxious endeavour of her present sons that the prosperity of their commonwealth suffer no loss in their hands, but that as the building of the new St. Thomas's far eclipses in splendour the building of the old, so shall its present school perpetuate and outshine the bright glories of former days."

WESTMINSTER HOSPITAL.

The Introductory Address was delivered by Dr. Sturges. The Lecturer commenced by remarking that it was the business of these addresses to expound in the simplest and frankest manner the duties, aims, and rewards of Medicine. Assuming that it was the object of the student's search to discover the work best fitted for his capacity, it was of the utmost importance that the sentiments which inclined him towards the study of Medicine should be founded on a correct conception of its scope and object. Were you to enter this Profession led away by the loose expressions which are current in society with regard to it; were you, for instance, to suppose that the end of your labours here will be the acquisition of certain rules and formularies whereby sickness is to be cured, or that we are prepared to indoctrinate you here in a series of dogmas built up out of ages of experience, you would misconceive both the powers and the objects of the Medical art. It was contended that a mere belief in systems of drugs argued nothing in their favour, since each system in its turn had had its period of approval, while all those that had gone before it had fallen into ridicule. The faith of one age was called credulity by the next. Yet the art, which in all ages has been followed with so much docility, has shown small confidence in itself. It is continually shifting and changing its ground, in restless anxiety to find itself in conformity with a principle.

The modern theory of the change of type in disease was alluded to as illustrating the ill-defined nature of our knowledge of the action of drugs. However the truth may be, it is at least ingenious to suggest that the ever-changing aspect of Medical practice is explained and justified by a corresponding change in the nature of the material to be practised on. For the dignity of therapeutics, it is better to assert that each age in its turn gets the medicine best suited for it, rather than that men should believe that all these phases of practice represent nothing more than a series of rude attempts to influence the fixed course of disease by medicinal agents. The lecturer proceeded to urge that a consideration of the nature of disease would, but for the vicious teaching of the past, hardly lead us to suppose that it was within the province of drugs to influence it. It was shown, on the other hand, how directly beneficial to the community was the mere observation of disease, and how personal acquaintance with it conferred a power which could never be reached through the experience of another. Therapeutics as a science was regarded as yet in its infancy—nay, it may be doubted whether that expression, as implying a certain development and giving promise of future maturity, is not altogether too hopeful with regard to it.

Pathology, on the other hand, was described as having made definite progress within our own day. We can trace now the progress of morbid changes step by step, and even foretell the manner in which they will proceed. Death less often comes upon us as a surprise, and when it does we are able often to demonstrate the precise material change on which it depends; and ever, as positive knowledge grows, we are removing, one by one, the vague and metaphorical expressions of old, and putting in their place words of definite meaning.

It was next shown that while there were difficulties and differences of opinion in pathology (as shown, especially, in the views of Rokitansky and Virchow), yet that this circumstance offered no real discouragement to the practical student. It is possible to gather knowledge from the many aspects of disease without being able to recognise the immutable law which each of them should serve to illustrate. In the actual progress of morbid changes, in the manner in which one organ is apt to influence the rest, in the correspondence between altered function and structure—in all these things we must be content to learn something of *the habit* of disease to become gradually familiar with its changing moods. It by no means follows that we apprehend these phenomena in their actual relations, or find in them all the material for general conclusions.

The evils of hasty generalisations in Medicine were here alluded to. It is so easy, by restating a fact in transcendental language, or by translating its terms into a general expression, to make a show of explaining it. Some illustrations of this habit were given. Far better than this ready ingenuity of hypothesis seems the honest labour of mere collecting of specimens, adding day by day to the vast pile of dead material, without much thought as to the use which is to be made of it. But, best of all—for us at least—is the habit of regarding morbid changes strictly in connexion with their clinical phenomena, seeking by observation to eliminate the accidental from the essential symptoms, and so at length, by sheer force of experience, to found a knowledge of the real nature of disease, which, so far as it goes, shall be available for all future time.

It was next shown that the business of the modern Physician was rather to ward off disease than to contend directly against it; that his duty to the community was to persuade them how rare a thing was the cure of disease, and so to urge upon them the means which exist for its prevention. Duties like these are far less brilliant than the old weapons of fire and steel, with which disease (before it changed its type) was wont to be annihilated. Heroic treatment has passed away; ability is no longer measured by confidence, and bold assertion is almost tantamount with imposture.

And if this, or something like this, represent the present position of our art, what manner of men ought we to be who propose to practise it? The duty of perfect sincerity was urged, of using much care to avoid a cumbrous and unmeaning phraseology. If, for instance, ignorance of drug-action is a thing confessed and notorious amongst ourselves, surely it is worth an effort, even the sacrifice of some profitable routine, to proclaim the fact of such ignorance with perfect frankness. In such conduct lies the very touchstone of dignified practice—the nicest test to distinguish between the noble exercise of our art and its detestable counterfeit.

It was insisted that much of the loose talking, and wild theories and false logic which a man carries into his practice may be traced to a vicious mode of learning in his student days. There is a way of getting up subjects by means of set phrases, without ever realising to the mind the facts which are thus expressed. You are bent upon satisfying the examiners, and leave out of sight the satisfying of your own minds.

And not only so, but in the phrases of an obsolete pathology you may burden the memory with frightful names, without adding anything to real knowledge; and so it comes to pass, as from this training it surely must, that this unreal mode of knowledge becomes a habit of the mind, and the power of forming a distinct conception of disease almost wholly dies away; and entering practice in this spirit you begin at once to bandy about the phrases of practical Medicine. You apply disparaging adjectives to the organs and functions of the body, as "sluggish" and "irritable" and "depraved," and by these epithets you think to describe disease.

The lecturer proceeded to show how the pupil should fortify himself against this habit by the diligent observation of disease in the wards and in the post-mortem room. He recommended, especially, that practical study should begin at once,

and, at first, with as little assistance as possible from books. All systems of classification must in some sort come between us and the thing we would fain see with our own eyes. Against the danger of too great servility to systems (all of which are of necessity merely provisional) you must set your own power of independent observation. It is never too soon to begin to acquire that power.

Consider of disease, then, as a condition to be studied afresh in each individual. You cannot learn its treatment out of a book, nor cure it with a stroke of the pen. Often you will have to set your face altogether against drugs, and, with much labour, to survey all the surroundings of your patient, seeking to interpret little signs for his benefit—unable, perhaps, even then, to do more than suggest. This is far harder than writing prescriptions, and it is far less telling. As in the case of the Syrian leper, the very simplicity of your advice may give offence. With such teaching, it was confessed that our conduct in so readily supplying drugs to our out-patients hardly corresponded. Yet the education which is to mend all this must come to these in their turn. It is your duty in addressing a higher class to educate your patients not so much against vulgar quackery, which to them is hardly dangerous, as against a blind confidence in the power of the Doctor.

The lecturer, nevertheless, cautioned his hearers against that noisy scepticism, which is never so offensive as when aimed against the honest beliefs of those who have access to the same sources of information with yourself. Many a man says "I don't believe" when in fact he ought to say "I don't understand."

In concluding, Dr. Sturges said—It is not the least among the advantages which this Profession offers, that, unlike some others, it leaves the mind perfectly free and unfettered in the search after truth. We know nothing here of views propounded and enforced quite apart from the proper convictions of the speaker. We bind you by no fixed dogmas, which a riper age may render irksome and intolerable. Only seek the truth, and remember that, though the way may be rough and the prize far off, there is ever in the pursuit a keenness of pleasure which is lost in the possession. And not only so, but, in preparing to exercise this high Profession honestly and well, you are doing what you can to secure the happiness of your own future, to realise, as age approaches and the objects of vulgar ambition fade away, the pleasures of a life spent in doing good.

ORIGINAL COMMUNICATIONS.

ON THE

RELATIVE TEMPERATURE OF THE RIGHT AND LEFT SIDES OF THE TRUNK.

By EDWARD T. BLAKE, M.B., etc.

To the number of this journal for June 18 last, I contributed a letter, at pp. 676-7, entitled "Unequal Temperature of the Right and Left Sides of the Body in Health," in which I drew the attention of the Profession to an observation made at Lynmouth on June 9. After three hours' sharp walking, under a powerful sun, the left side of the thorax was thought, in the case of two healthy male adults, to be perceptibly hotter than the right. Since that date I have made as many observations as the *exigeant* nature of Professional occupation would permit.

First Observation was made on myself: healthy adult; slight; of bilious temperament, on July 15, at 6 p.m. After taking tea, then a little exercise, I sat down, removed my coat, and introduced the bulb of a Philips's self-registering thermometer (Casella) into the right axilla. It took twelve minutes to reach the normal average temperature, 98·4° Fahr. At the end of a quarter of an hour the mercury stood at 98·8°. The instrument was then withdrawn and introduced into the left axilla.

Temperature in 6 minutes	100°
„ 8 „	100
„ 10 „	101·4
„ 15 „	101·4

Second Observation on Myself.—July 16, 12.30 a.m.—No exertion; half-pint of Hungarian wine had been just taken.

Axilla.	Right.	Left.
Temperature in 5 minutes	97·4°	98·4°

Third Observation on Myself.—July 18, 11.30 p.m.—After walking half a mile rapidly; half a pint of stout had been taken at 10 p.m. Temperature of room 75°; pulse 100; respiration 24.

Axilla.	Right.	Left.
Temperature in 5 minutes	99°	98·5°
„ 10 „	99·5	99·4
„ 15 „	99·5	99·7

Fourth Observation on Myself.—July 20, 11.30 p.m.—After sharp walking exercise, half a pint of stout having been drunk at 10.30 p.m. Temperature of room 76°; pulse 80; respiration 26.

Axilla.	Right.	Left.
Temperature in 5 minutes	98·3°	97°
„ 10 „	99·4	98·9
„ 15 „	99·5	99·3

Fifth Observation on Myself.—August 12, 6.30 p.m.—After taking tea. Temperature of room 75°; pulse 66; respiration 24.

Axilla.	Right.	Left.
Temperature in 5 minutes	98·9°	99°
„ 10 „	99·4	99·4
„ 15 „	99·5	99·4

The following ten observations were made on R. M., a groom, aged 30, in average health, short, slight and fair. The tests in this group were made with unusual precautions. The instruments employed were manufactured by Casella. They consisted of two curved and two Philips's registering thermometers; these were compared to secure uniformity. The same kind of thermometer was used simultaneously in the two axillæ. They were carefully adjusted in the same part of the axilla, the subject always being in the sitting posture. The thermometers were alternated daily as regards side of body.

Sixth Observation.—July 16, 3 p.m.—Having just groomed a horse, and eaten nothing since breakfast at 8 a.m. Temperature of room 76°.

Axilla.	Right.	Left.
Temperature in 5 minutes	98·8°	99·6°
„ 10 „	99	99·8
„ 15 „	99·2	99·9

Seventh Observation.—July 21, 1.30 p.m.—Having just groomed a horse and washed a carriage in hot sun. No food since breakfast at 8 a.m. Temperature of room 75°; pulse 86; respiration 22.

Axilla.	Right.	Left.
Temperature in 5 minutes	97°	97·3°
„ 10 „	98·4	98.2
„ 15 „	98·2	98·4

Eighth Observation.—August 9, 2.45 p.m.—Groomed horse. A glass of light wine at 1.30 p.m. Temperature of room 73°; pulse 72; respiration 16.

Axilla.	Right.	Left.
Temperature in 5 minutes	98·4°	99·4°
„ 10 „	99·2	99·6
„ 15 „	99·3	99·6

Ninth Observation.—August 10, 2.45 p.m.—Groomed a horse. Had taken half a pint of stout just before. Temperature of room 73°; pulse 80; respiration 18.

Axilla.	Right.	Left.
Temperature in 5 minutes	99·7°	100·2°
„ 10 „	100·3	101·1
„ 15 „	100·8	101·7

Tenth Observation.—August 11, 3 p.m. Had been working hard at horses and chaff-cutting, and just dined. Temperature of room 73°; pulse 100; respiration 22.

Axilla.	Right.	Left.
Temperature in 5 minutes	98·6°	99·4°
„ 10 „	100·2	100·4
„ 15 „	100·5	100·5

Eleventh Observation.—August 12, 3.30 p.m.—Having dined, walked rapidly in the sun, and then cut chaff. Temperature of room 75°; pulse 96; respiration 20.

Axilla.	Right.	Left.
Temperature in 5 minutes	99·2°	100°
„ 10 „	100·2	100·6
„ 15 „	100·4	100·7

Twelfth Observation.—August 13, 3·30 p.m.—Dined; then walking and chaff-cutting. Temperature of room 74°; pulse 92; respiration 20.

Axilla.	Right.	Left.
Temperature in 5 minutes	99·7°	99·3°
„ 10 „	100.7	100
„ 15 „	100·7	100·2

Thirteenth Observation.—August 16, 1.30 p.m.—No food

since 8 a.m.; has rubbed down one horse. Temperature of room, 69°: pulse 70; respiration 20.

Axilla.	Right.	Left.
Temperature in 5 minutes . .	99·8°	99·8°
„ 10 „ . .	100	100·8
„ 15 „ . .	99·9	100·3

Fourteenth Observation.—August 17, 4 p.m.—Had taken dinner at 2.30 p.m.; a glass of wine at 12.30 p.m. Temperature of room 70°; pulse 84; respiration 18.

Axilla.	Right.	Left.
Temperature in 5 minutes . .	98·4°	99°
„ 10 „ . .	99·7	99·7
„ 15 „ . .	99·8	99·8

Fifteenth Observation.—August 18, 1 p.m.—Has taken no stimulant; rubbed down a horse; slight diarrhœa. Temperature of room 70°; pulse 80; respiration 18.

Axilla.	Right.	Left.
Temperature in 5 minutes . .	99·7°	100·8°
„ 10 „ . .	100·6	100·9
„ 15 „ . .	100·7	100·8

If we submit the preceding experiments to a careful analysis, and extract from them those temperatures with which we are more immediately engaged—viz., those observed after exercise—and tabulate their averages, we obtain the following result:—

Axilla.	Right.	Left.
Average temperature in 5 minutes	98·8°	99·2°
„ „ 10 „	99·8	100
„ „ 15 „	99·8	100·2

This is an analysis of twelve observations in the 5 and 10 minutes' times, and of thirteen observations in the 15 minutes' time; these are not sufficiently numerous to do anything more than placing the idea of a variation beyond the sphere of mere conjecture. The table shows a difference of ·4° in 5 minutes; ·2° in 10 minutes; ·4° in 15 minutes. It also shows that a prolonged residence of the instrument in the axilla is essential to register the absolute temperature.

The maximum of difference between the two sides was registered at the end of five minutes, and was *one degree and one-tenth—vide* fifteenth observation.(a)

Per contra, the 15 minutes' reading of observation five exceeded on the right side by ·1°; in the seventh observation the 10 minutes' reading on the right side was ·2° higher than on the left; and in observation twelve all the readings were higher on the right than on the left side.

Sixteenth Observation.—July 15.—A patient, B. M. A., aged 24, with abdominal tumour (right flank), and with passive renal congestion (of same side probably), having eaten a light meal, half an hour before, and taken no exercise for one and a half hours.

Axilla.	Right.	Left.
Temperature in 5 minutes . .	98·2°	98·1°

Seventeenth Observation.—August 16, 3.30 p.m.—A subject (male adult) in first stage of pulmonary tubercular disease; after walking half a mile. Temperature of room 70°; pulse 120°; respiration 140.

Axilla.	Right.	Left.
Temperature in 5 minutes . .	100°	100°
„ 10 „ . .	101·2	101·2
„ 15 „ . .	101·4	101·6

All the preceding observations were taken at Leamington, in Warwickshire.

Dr. Wynne Thomas, of Birmingham, found that in a case of unilateral chronic pneumonia, the temperature of the diseased (right) side was 5° higher than that of the healthy (left) side.

A case of pleuropneumonia from gunshot wound in the thorax (in a tropical climate) was recently reported in the *Lancet*, in which the heat of the sound side was 1° lower than that of the side on which the lesion existed.(b)

CONCLUSIONS.

From the preceding observations it seems probable—

1. That the temperature of the two sides of the trunk under usual circumstances—*i.e.*, in health, and at rest, in a temperate climate, is equal.

2. That under certain conditions, the temperature of the left side of the trunk may exceed that of the right.

3. That that excess, during exertion, in a cool atmosphere, averages half a degree Fahr.

4. That that excess reaches its maximum about one degree Fahr. during exertion in a powerful sun.

Taunton.

(a) I reject Observation One, where, at the end of fifteen minutes, the left axilla was 2·6 degrees higher in temperature than the right, because the observations were not made on each side simultaneously.

(b) Dr. Bœumber, in *The Practitioner* for September, 1869, gives the following very good rules for observing the temperature of the body:—The time required for a thermometrical observation varies as to the locality in which the temperature is taken. This time is from 3 to 6 minutes in the rectum, from 9 to 11 minutes in mouth, and from 11 to 24 minutes for axilla (extreme cases exeepted). He admits, however, that the time may be shortened somewhat, by keeping the arms closed by the side for a quarter of an hour previously, and by warming the bulb of the thermometer to near the point required to be estimated.

NOTE ON STILLING'S OPERATION FOR STRICTURE OF THE LACRYMAL DUCT.

By LAWSON TAIT, F.R.C.S.E., etc.

I HAVE not yet noticed that this operation has been condemned in English journals, although I am aware that at Moorfields it is almost entirely, if not altogether, abandoned. I am tempted to write this note that others may avoid the mistake I was led to commit, by a recent laudation of this rough and unscientific operation, in the matter of trying it in five cases. Four of these were carefully selected and uncomplicated cases of chronic stricture below the sac; the fifth was probably complicated by a slight necrosis. Stilling's knife was passed as he directs, and the sound used afterwards, but in none of the cases was there the slightest improvement; in fact, on the contrary, they were all much worse, and in two only did a long-continued treatment by Bowman's probes and laminaria tents effect a cure. The subsequent history of the other cases I do not know. In one case the hæmorrhage after the operation was troublesome. The operation I have characterised as rough and unscientific, because the stricture is attempted to be divided without any guide—the knife, in fact, has to find its way anywhere, not having even a probed point to help it. No substantial improvement has yet been effected on Mr. Bowman's operation, as far as I am aware, unless the use of Weber's knife can be regarded as such.

Waterloo-street, Birmingham.

CONTRIBUTIONS TO CLINICAL SURGERY IN INDIA.

By A. S. G. JAYAKAR, M.R.C.S.E., etc., etc.

Case 1.—*Epithelial Cancer of Lower Lip—Removal—Cheiloplastic Operation—Recovery.*

B., A BRAHMIN, aged about 80, was admitted into Hutteesingh's Hospital, Ahmedabad, on December 1, 1869, with extensive cancroid disease of lower lip, epithelial in its nature. It extended upwards to the upper lip at the right angle of the mouth, and involved the whole of the lower lip, causing it to evert. Inside it extended to some little distance in the right cheek. A feeble old man, with distinct cancerous cachexia, but no enlargement of glands in any part of the body.

He was operated upon the same day, half an ounce of brandy having been administered previous to his being put under the influence of chloroform. A horizontal incision, half an inch in length, was commenced at the right angle of the month and carried out into the cheek, whence it was carried downwards in an oblique direction. A similar incision was made on the left side, and two short oblique incisions in the middle of the chin, meeting below, thus enclosing the whole diseased mass, which was easily dissected out.

There was a considerable hæmorrhage, which interfered a great deal with the operation, but it was successfully checked by torsion and cold. The plastic incisions were next brought together by means of harelip pins and sutures, giving the patient a very respectable lower lip.

Ordered to take ʒj. of brandy every four hours, and a morphia draught at bed time, and opium gr. iij. during the day. For three or four days the wounds went on progressing favourably, without any constitutional derangement, but on the fifth the central wound took on an unhealthy action, necessitating the removal of the pin. Was ordered to take brandy-and-egg mixture, and quinine, gr. v. The next day there was erysipelas of the face, and the patient seemed to sink from exhaustion; but on December 8 he gradually rallied, the erysipelatous inflammation having mostly subsided. The wounds were dressed with carbolic acid and allowed to granulate from the bottom.

On the 9th he was removed from the Hospital by his friends to his house, where he was subsequently attended. Internally he took cod-liver oil and iron, with alcoholic stimulants. By December 18 the cure was complete, all the wounds having nearly healed; the patient was feeble, and therefore unable to get out of bed. Ever since then he has been gradually improving, both as regards his general constitution and the appearance of his countenance. At present a casual observer can hardly discover any defect in his lip.

Remarks.—The most important point of interest in the above case is the far-advanced age of the patient, notwithstanding which he made a very good recovery. The erysipelatous and unhealthy inflammation which set in on the fourth day after the operation seemed at first to interfere with its success; but, strangely enough, when all the vital powers are at an ebb, there is yet a tendency in nature to return, as it were, to life and vigour. The cicatricial marks of the wounds are scarcely at all seen, the patient having, upon the whole, a very respectable lip.

Case 2.—Œdematous Laryngitis setting in upon Chronic Laryngitis—Tracheotomy—Death Five Weeks after the Operation.

B. D., aged 25, was brought to Hutteesingh's Hospital, at 3 p.m., on September 12, 1869, with great dyspnœa, of which he had complained for three or four days previously. On admission into the Hospital, the breathing was stridulous; the patient had an anxious countenance, expressive of distress, and constantly pointed to the larynx, where the impediment to the ingress of air existed. On making a laryngoscopic examination, extensive œdema of the glottis was discovered, the rima glottidis being thickened and congested. On inquiring into the history, it appeared that he had suffered from chronic syphilitic laryngitis for three months before the present attack, which came on only three days ago, after an exposure to cold and wet. His pulse being feeble, an ounce of port wine was ordered every two hours, with large linseed meal poultices to the throat, to be changed every hour. At 5 p.m. there was hardly any change, except in the difficulty of breathing, which had increased since the last visit. Camphor vapour inhalation was ordered for half an hour, without any relief. At 8 p.m. four leeches were put to the supra-sternal region, and mercurial inunction to the thighs. He experienced a little relief at about 10 p.m.

On the 13th, at 7 a.m., the difficulty of breathing had greatly increased; there was spasmodic cough, with bloody and frothy expectoration, the patient being threatened every minute with suffocation. On making a laryngoscopic examination, the œdema was found to have greatly advanced, leaving hardly a passage for a fine probe to pass through. The operation of tracheotomy was immediately performed; no hæmorrhage or any other complication till the introduction of the tube, which was in a few minutes choked up with mucus and phlegm, and the life of the patient was once more threatened. I had immediately to put my mouth to the tube and suck out all the mucus, after which the breathing became calm, and the patient expressed himself greatly relieved. The patient went on gradually improving, his larynx being occasionally touched with a solution of nitrate of silver. He went on making a fair progress till October 2, when a small abscess presented itself in the left side of the wound, discharging a small quantity of pus; but it healed in about three days, when a sharp attack of dysentery set in, which pulled him down a great deal. He was just recovering from the attack of dysentery, when he was overcome by exhaustion, and he died on October 20, thirty-seven days after the operation.

Remarks.—In this case the operation in itself was successful, the œdema and inflammation of the glottis having nearly disappeared at the time of his death. The operation was performed at the most opportune moment, the bloody expectoration and extreme dyspnœa having justified a prompt and early relief. He died, evidently from exhaustion following the attack of dysentery.

Case 3.—Extensive Necrosis of the Tibia—Partial Resection—Recovery with a Sound Limb.

V. G., a Hindoo, aged about 18, was admitted into Hutteesingh's Hospital, Ahmedabad, on February 19, 1869, with a number of sinuses on the inner aspect of the right leg. On exploration, extensive disease of the tibia was discovered. There was also talipes equinus, with great displacement of the tarsal bones. He was ordered to take cod-liver oil and iron with opium, gr. iij. daily. The sinuses were laid open, and a few pieces of dead bone easily removed; the whole surface was dressed with carbolic oil (1 to 20), with a hope that it may heal from the bottom. But the disease having rapidly extended, and involved nearly three inches of the lower end of the tibia, an operation was decided upon on June 13, 1869. He was accordingly brought fully under the influence of chloroform. A long incision, about four inches in length, was made upon the inner aspect of the leg, and the soft parts having been separated from the bone, it was sawn across through nearly three-fourths of its thickness, where the disease seemed to have limited itself. Below, at the ankle, there were two large osseous cavities discovered, which were thrown open into one by removing the bridge of bone, thus leaving behind only a thin shell of bone. The whole was allowed to granulate from the bottom, being dressed morning and evening with carbolic oil. The constitutional treatment was continued till September 3, when the wound was entirely filled up with a thick hard fibrous deposit, and the patient was able to walk about with the assistance of a stick. Nothing could be done for the talipes, as the tarsal bones had undergone great displacement. The wound healed up completely by September 16, and he was discharged from the Hospital on the 18th, able to run and jump about without the aid of a stick or crutch.

Remarks.—There is one point of interest to notice in this case. Although the disease had invaded nearly one-third of the shaft of the tibia, the age of the patient being favourable, he made a very good recovery, the limb being, to all intents and purposes, as useful as the healthy one.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

OPERATIONS.

Lithotrity, and Removal of Necrosed Bone from Tibia—By Mr. B. Hill. *Amputation of Leg, Removal of Scirrhous Breast, and Ligature of Nævus*—By Mr. Christopher Heath.

On Wednesday, September 7, Mr. Berkeley Hill crushed a stone in a patient of Sir H. Thompson's. It was the fourth sitting, and chloroform was administered. The stone was caught and crushed in the usual manner, but the proceeding was complicated by the instrument becoming blocked by at one time a large fragment being impacted in its eye, and afterwards by a separate small hard stone being similarly entangled. Clover's apparatus was used to wash away the detritus, and, as usual, succeeded in getting rid of a large quantity of coarse chips.

Mr. Hill also operated upon a man who had been admitted some weeks previously with necrosis of the tibia. Believing that the bone was now loose, Mr. Hill enlarged the opening in the shin, and removed with chisels and gouges the diseased portions.

The next patient brought into the theatre was a man aged about 60, who had long been troubled with a large and deep ulcer of the leg, which had often healed and as often broken out again, and for whom Mr. Heath had recommended amputation as the fittest remedy. The operation was accordingly performed, anterior and posterior flaps being fashioned. Mr. Heath pointed out that his experience prompted him to allow rather more anterior flap than is usually cut, in order to avoid the risk of falling away of the flaps after this operation. It was attempted to secure the vessels by torsion, but—as we have not infrequently seen to happen—after many ineffectual attempts to fasten up two or three larger arteries, the forceps were laid aside and the old threads resorted to. It may be that some calcification of the vessels, and the fact that there seemed to be a double posterior tibial artery, rendered torsion unusually difficult in this case, but we have now so often seen the twisting fail and deligation substituted, that we cannot fully understand all the praise that has been lavished of late on the recently revived method.

Mr. Heath next amputated the breast of a woman, aged about 45, for cancer. The signs of the disease were well marked, and the lymphatic glands were believed to be healthy. The obvious cancerous portion was confined to the centre of the breast, the skin being notably thickened and puckered over it, but Mr. Heath followed the almost invariable rule of Surgeons in this day, and removed the whole mamma, including the nipple and adjacent implicated skin, in an elliptical incision. In this case the bleeding vessels were readily arrested by torsion. The breast, cut across, presented the ordinary unmistakable appearance of hard cancer in its most typical form,

the central gritty pear-like portion sending out pinkish succulent off-shoots, which faded into the surrounding mammary tissue. Mr. Heath also tied a large nævus in an infant's cheek, afterwards demonstrating the form of knot employed (Fergusson's) to the students. The child was not put under chloroform, as Mr. Heath thought it an unnecessary risk to run for so short an operation.

Afterwards, in the wards, we saw Mr. Heath perform the operation of transplanting particles of sound skin into the midst of healing ulcers and granulating surfaces, but we reserve full notes of these and other similar cases for a future occasion.

ROYAL INFIRMARY, BRISTOL.

CASE OF ACUTE CHOREA—CEREBRAL HÆMORRHAGE, TWELVE HOURS BEFORE DEATH—WITH MINUTE VEGETATIONS ALONG THE EDGE OF THE MITRAL VALVES, AND MICROSCOPIC EMBOLISM OF CORPUS STRIATUM.

(Under the care of Dr. E. L. FOX.)
[Reported by Dr. R. SHINGLETON SMITH.]

AMELIA. H., aged 17, admitted on May 5, 1870, with chorea of three weeks' duration, which had manifested itself a few days after a fright. She had never had rheumatic fever, and no history of rheumatism or of chorea in the family could be elicited.

On admission, there was much jactitation, affecting both arms, the legs, face, and all parts of the body; it affected both sides equally; her speech was indistinct and spasmodic, barely intelligible. Consciousness was not affected; she was quite sensible, and answered all questions as well as the choreic movements would allow. She made no complaint of anything; had a rather florid, healthy appearance; took her food as well as possible; bowels and catamenia were regular; pulse was 108; temperature 99⅔°. Nothing abnormal could be detected with the heart's action, or its sound. She was ordered syr. chloral hydrat. (Ferris) ʒ ij., t.d.s.

May 7.—She was very restless, and had not slept well. Syr. chloral hydrat. ʒ iij., t.d.s.

10th.—Was getting worse; ordered to take zinci. sulphat. gr. ij. t.d.s., and morphiæ acetat. gr. j., omni nocte.

11th.—She was much weaker than before; choreic movements more active; was unable to stand, or to speak intelligibly; could not be kept on the bed, but rolled about on the floor; she seemed to be wandering in mind occasionally; she slept little, but took food well. Took morph. acetat. gr. j., every six hours, but it seemed to have little or no effect; was ordered eight ounces of wine; pulse 120; temperature 98⅔°.

May 12.—Much weaker, but still as restless as ever, tossing about incessantly. At 1.30 p.m. she ate some dinner; the jactitation was then very active. At 3 o'clock there was less movement, and at 3.15 she was found to be deeply comatose, with stertorous breathing, and lying perfectly still, as the nurse supposed asleep; pupils were contracted, but five minutes later both pupils were dilated. At 4.30 the right pupil was much dilated, widely so; the left was small; both were insensible to light. She remained deeply comatose, and unable to swallow. Her pulse was fairly strong, regular, about 120. Enemata containing brandy were administered.

On the 13th, at 2 a.m., the breathing became more stertorous; the pulse was much feebler; the right pupil was still widely dilated, the left contracted. At 3 a.m. she died.

Post-mortem Examination, nine hours after death.—*Body* somewhat emaciated; numerous bruises on the legs; knuckles of both hands abraded; and the hair matted together. *Head:* Dura mater adhering firmly; a considerable collection of black, recent clot within the dura mater on the right side, in the cavity of arachnoid, free, lying against the surface of the brain, and pressing on it, in quantity about half an ounce. There was no abnormal vascularity of the membranes, nor adhesion to the brain substance. No softening, congestion of, or exudation in any part of either hemisphere was discovered. The middle cerebral arteries apparently pervious and healthy; the corpora striata looked somewhat pale, but equally so. There was no injury to the dura mater or the skull, and the source of the ante-mortem hæmorrhage was not manifest. *Heart* of normal size and appearance. Aortic valves healthy. The mitral valve on the ventricular surface showed nothing abnormal; but on laying it open and inspecting the auricular surface a string of minute bead-like processes was seen skirting the auricular edge of the valve; they were raised slightly above the surface, were not covered by endocardium, but loosely attached, and separating easily with the finger nail. To the rough surface formed by these minute vegetations a small quantity of black clot was firmly attached. These projecting beads extended along nearly the whole length of the valve, affecting both cusps equally, and were most numerous at the apices of the cusps. *Uterus* was in a menstruating condition, three inches in length. Both ovaries large, with numerous cicatrices, and Graafian cysts. Hanging from extremity of right Fallopian tube were two small Wolffian cysts. Other organs were healthy; no evidence of embolism discovered. *Corpus striatum*, microscopic examination of: a small piece of the right corpus striatum was removed and placed in chromic acid solution. On examining this a fortnight afterwards it was found that all the minute vessels were filled with blood-corpuscles; the capillaries throughout were visible from their being full of red colouring-matter in which blood-corpuscles could be seen. The small arteries and capillaries were all alike visible, as if the vessels had been artificially injected. Small vessels were seen in section to be filled with a coherent mass looking like a mass of red corpuscles. Every part of the tissue seemed to be similarly injected, the whole calibre of the vessels being occupied by a coherent mass of blood-corpuscles. There can be no question as to the fact that this corpus striatum was in a state of capillary engorgement; but it is not so easy to decide whether this was an ante-mortem condition, the result of capillary embolism, or whether it was an accidental concomitant or sequela of death, not in any way connected with the condition of the mitral valve. The appearance of the tissue gave one the idea that the vessel must have been blocked during life, the vessels were so choked with blood-corpuscles, that one would suppose could only have been filtered off from a much larger quantity of blood than could be contained within the vessels at any one time; supposing the capillaries to be blocked, blood might continue to enter the small arteries, serum might exude through the walls of these arteries, fresh blood be sent into them, and so serum continue to escape till the vessels were choked with corpuscles, and no more blood could enter. It seems to be no uncommon thing to find the vessels full of blood-corpuscles in nerve tissue hardened in chromic acid; I have seen it in several specimens of healthy spinal cord and brain tissue, but in none of the specimens which I have examined did I find it to the same degree as in the case I have reported. I did not find any other evidence of embolism beyond the blocking of the channels with corpuscles; there was no dilatation, no sacculation, or nodulation of the vessels to be seen, and no capillary hæmorrhages were detected. The condition of the mitral valve—so highly favourable to capillary embolism—affords a strong presumption in favour of the embolic explanation of the microscopic appearances of the corpus striatum; but, whether these appearances were due to embolism or not, the pathological conditions described give very decided support to the embolic theory of chorea advocated by Dr. Hughlings-Jackson. The mere fact that in a severe case of chorea, coming on without any rheumatic or cardiac history, the mitral valve should be found studded with vegetations, gives support to the embolic theory, even supposing that embolism itself cannot be demonstrated. The mitral vegetations are found to coexist with severe chorea: is it not most probable that they are related to each other as cause and effect, seeing that no other cause for the chorea can be discovered, and no other pathological phenomena found? The hæmorrhage on the surface of the brain is another interesting point in the case; the origin of the blood was not clear, but it was evidently ante-mortem; its co-existence with mitral vegetations affords another reason in favour of the embolic theory.

CASE OF WASTING PALSY—ATROPHIE PROGRESSIVE MUSCULAIRE.

(Under the care of Dr. BRITTAN.)
[Reported by Dr. R. SHINGLETON SMITH.]

J. C., aged 58; married; no children; has been a coachman, a warder at an asylum, a publichouse keeper, and of late has been doing more laborious work as a labourer in some iron works. He used to drink a good deal when young, but has been temperate of late. He never had syphilis. Last January twelve months he fell down, from his toe having caught against a stone; he fell on the right arm, and this arm was useless for a month afterwards, but then got right again. His wife says that he had a fit about thirteen months ago, when he fell down, and was insensible for five minutes. About this time he began to feel weak down the left side, and he very gradually lost the use of his left arm and left leg.

Present Condition, September 2.—He is rather thin; says

that his general health is good; also that his memory is good; but his speech is a little thick, and his intellect decidedly dull. He complains of loss of power in his left arm, left leg, and right arm. He can stand alone, but is unable to walk without a stick, and in walking drags the left leg. He can raise his hands to the head, but has no power in them; cannot grasp anything firmly; cannot hold even a piece of paper between the thumb and index finger of left hand; is not able to cut up his food, and cannot dress himself without help. The left arm is very much wasted; very little muscle left; no extensor muscle present; lumbricales and interossei, also the thumb muscles, imperceptible; the biceps, triceps, and deltoid also wasted. The right arm is similarly wasted, but less so; it is most marked in the muscles of the thenar eminence, and the interossei. The left leg is very small; atrophy general. He often complains of pain down the limbs (cramps); he says that the "muscles rise up," and he often has "twitching" in the wasted limbs. He makes no mention of any impairment of sensation. His mental condition gives some difficulty in obtaining facts. When he was well he did a good deal of hard work, and the left hand was stronger than the right; the left was his "favourite hand."

Since his admission a fortnight ago he has remained stationary. The wasting does not increase; on the contrary, he is stronger than he was a month ago; this benefit he attributes to the use of a galvanic chain (continuous current) which he has worn.

CASE OF PROGRESSIVE MUSCULAR ATROPHY.

(Under the care of Dr. E. L. FOX.)

[Reported by Dr. R. SHINGLETON SMITH.]

Silas B., aged 32, married; three children. Is a moulder at an iron foundry near Burnham. Sixteen months ago began to lose the use of his hands; it began in the right wrist, the thumb, and the index finger, and for three or four months it progressed up the arm; then the left arm became affected in a similar way. It gradually got worse till a month ago, when he was unable to lift his hands to his mouth. The extensor muscles of forearms, the interossei, and the thumb muscles are most wasted, but the flexors are also small and soft. The biceps and deltoid are very small. He complains of weakness in the legs, but no wasting is visible. He has pains in the wasted limbs, also in the calf of both legs. He also complains of frequent "twitchings" in both arms and in the left leg. His hands constantly perspire very freely, but sensation does not seem to be affected. The arms feel stiff, and ache when exerted. General health is good, and the muscular wasting is stationary; he is no worse now than a month ago, but, on the contrary, he thinks his arms are stronger. He has been ordered —mist. ferri c. strychnia.

THE NATIONAL HOSPITAL FOR CONSUMPTION, ETC., VENTNOR, ISLE OF WIGHT.

At a time when much difference of opinion exists as to the advisability of continuing the erection of large buildings with roomy wards as Hospitals, we are sure that our readers will be interested in an account of the new Hospital at Ventnor, which (as its prospectus informs us) "is upon the cottage principle; of which, in fact, the aim is to make it the model." We confess at the outset that, somewhat misled by its advertisements, we were a little disappointed to find that the "National Hospital for Consumption, founded for the reception of upwards of 100 patients from all parts of the kingdom," is at present represented by a couple of semi-detached villas, capable of containing a dozen patients. The situation of these villas is, however, charming, and the erection of seven other similar blocks is contemplated—indeed two of these are already rising into shape. Protected on all sides by cliffs and trees, the Hospital nestles in a sunny nook in the Undercliff, about three-quarters of a mile to the west of Ventnor, with six acres of garden about it, and so close to the sea—although sheltered from its breezes by a gentle rising ground, overhanging the shingle—that from the verandahs of the villas beautiful glimpses may be obtained of the sea-shore, distant about a hundred yards. We use the term villa advisedly, since "cottage" seems to us to do but scant justice to the elegance and roomy comfort of these houses. On the ground floor a sitting-room and a dining-room open into the hall; the former of these well-furnished with couches and easy chairs, comfortably carpeted, and well supplied with books and periodicals; the latter also a cosy room, with good pictures, a harmonium, and other signs of comfort, and with a movable hatch in the wall, communicating with the kitchen, so that the food is sent in straight from the fire. Both these rooms—like the bedrooms —face south, and open by window-doors on to a large shady verandah overlooking the grounds. A similar verandah runs outside the bedroom windows for such patients as may not be strong enough for stair-work, and being well sheltered these must form very agreeable resorts in wet weather. In the winter time, cards, bagatelle, chess, dominoes, etc., are much in vogue to wile away the long evenings. When we had inspected the ground floor we were shown upstairs into a large and handsomely furnished bedroom, which we took to be the resident secretary's private room, and we were tempted to envy him his capital accommodation. The floor was polished, a good carpet covering the centre; there was a fine open fireplace; the large and elegant iron bedstead was supplied with a spring mattress, and tastefully draped with neat curtains; there was a marble washstand with good china fittings, a hip-bath, large mirror on toilette table, chest of drawers, clothes-basket, and two or three light cane chairs. We were fairly surprised when we learned that this was a patient's room, and that all had similar accommodation. It appeared, however, that many of the patients were neither grateful nor civil; and on inquiring into the cause of so much independence, we learned for the first time—for the fact is not mentioned in the prospectuses—that each patient pays ten shillings a week, in addition to his governor's letter, during his three months' stay. They certainly get a good return for their money, but we question whether an institution which needs a contribution of six pounds from the patient, as well as a governor's letter, to enable him to stay the allotted time, can be judiciously selected as a "model" for other cottage Hospitals, however excellent are its other arrangements; and these are undoubtedly very good. There is a capital bath-room, with drying closet supplied with hot-air from the kitchen. The whole building is kept warm with hot-air pipes, and the bedroom floor can be shut off from the draughty staircase and corridor by large windows. There is a small dispensary downstairs, and as funds accumulate great additions are contemplated—as a chapel, and a bake-house, brewery, and laundry in the grounds. There is a resident House-Surgeon, and in the present state of affairs this gentleman also performs the duties of secretary and general superintendent. There are no nurses. The number of applicants for admission will probably increase as the advantages of the place become more widely known. At present there does not seem to be much of a run upon the Hospital, as when we paid our visit there were two empty rooms, one of which had been vacant a fortnight, and the other a week. A patient was expected down in the ensuing week, however.

Applicants are subjected to a Medical examination at the London office before being sent down, or their usual Medical attendant has to fill up the necessary form. We have more than once heard complaints of this form on account of its searching and complicated character consuming an inordinate amount of time in an out-patient room; and we would suggest that the authorised Medical officer of the institution should, in all possible instances, make the examination himself. The facts elicited by a large number of such certificates carefully filled in and filed might in time become of much real value in ascertaining the effect of the climate of Ventnor on different forms of phthisis; but for this they should clearly be all the work of one man, and he an expert in the physical examination of the chest. It is already clear that the climate does not suit equally well all the few patients already admitted. There are two youths there now who are making no progress, and a man, aged 58, who is forced to keep his bed. One patient has already died with hæmoptysis. Owing to the care taken to send down only moderately diseased patients, but little treatment is required beyond the usual oily inunctions—croton outside and cod-liver inside. There is meat four times a day for those who care to eat it, and almost all have rum and milk at half-past seven in the morning. On the whole, we were much pleased with the arrangements of the place, and we have no doubt that it will do a great deal of good to a certain class of patients.

We were not surprised to hear that Lord ——, paying a visit from Ventnor a few days before we were there, expressed his great satisfaction with the luxury of the house, and his willingness to pay any reasonable sum if he could live there instead of at his hotel. We certainly think that a better idea of the nature of the National Hospital would be given if the extent of its self-support were indicated in its prospectuses, if not in its advertisements.

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Medical Times and Gazette.

SATURDAY, OCTOBER 8, 1870.

ENFRANCHISEMENT OF MEDICAL TEACHING.

The present condition of the English Medical Schools is unsatisfactory and vexatious, and some radical change is demanded if English Medicine is to advance as a science.

Two things there are which the student must learn. One is *practice*, including the recognition of disease and its treatment; the preparation of medicines, and application and use of Obstetric and Surgical instruments. This, it is unnecessary to say, can be best taught at Hospitals where students can see large numbers of sick and wounded patients, and where they can listen to the bedside demonstrations and watch the practice of men who have struggled to the rank of Hospital Physicians and Surgeons. There need be little doubt as to the efficiency of Hospitals as schools of clinical teaching and pathological demonstration, because it is in the interest of the Physicians and Surgeons to show their dexterity in those arts from which they hope to obtain fame and fortune. If a man has elucidated some pathological process, or discovered some new application of remedies, it gives him a stamp amongst students which passes current through the Profession, and leads to consultations innumerable. Physic and Surgery will, on the whole, be well taught at Hospitals, because they constitute the life business of those who teach them.

But, before the seeds are sown of Medical and Surgical practice, the ground needs to be well broken up and tilled by a sound training in those sciences which, as Celsus says, do not make a man a Physician, but make him fit to become one. Just as seed perishes if cast on a dry, stony soil, so does scientific instruction fall dead on minds not prepared to receive it. Of what use is it to speak of the eye to the man who knows nothing of the laws of light? Rank, base empiricism is the only crop to be expected from the best seed sown on such soil. But the Hospitals, good as they are for clinical teaching, cannot be good as schools of preliminary scientific training. As it is, there are eleven Hospitals in London with Medical schools attached; and these schools are "recognised"—they enjoy a monopoly. Certificates of attendance on teachers outside those favoured walls are valueless—they will not be accepted by the examining bodies. The vices of this system, and its pernicious influence on Medical education, are so obvious, that it is wonderful that some of the more clear-sighted of the Hospital authorities have not had the courage to denounce and abolish it. We have denounced them again and again, and, believing that the constant dropping of water will wear the hardest stone in time, we point them out again in a summary form, as follows:—1. There are not students enough, at the present rate of fees, to pay eleven teachers of anatomy, chemistry, and other branches of natural science; there are enough to pay two or three, and to furnish them with abundance of apparatus and appliances for teaching. Large classes, too, beget more zeal in teachers and taught than small ones. 2. Funds which should be devoted to the benefit of the sick are expended on buildings attached to Hospitals for the purpose of teaching chemistry and anatomy, which were better taught elsewhere. 3. The scientific curriculum at Hospital schools, with few exceptions, is mean and utilitarian; it is confined to the topics which will enable students to pass the "College and Hall," and is ill adapted for such as desire to pass the preliminary scientific examination of the University of London. Comparative anatomy, practical chemistry, and zoology are relegated to the short summer session. 4. The teachers of the scientific branches at Hospital schools cannot be expected to be efficient, because their heart is not in their work. A young Physician who desires to get a footing in a Hospital, accepts the "chair," say, of botany, or of microscopic anatomy; or a Surgeon undertakes the drudgery of giving anatomical demonstrations—not because he likes the subjects or likes teaching; on the contrary, he knows that it would injure his future prospects as a practising Physician or Surgeon if he were to teach too well and to get a reputation; he would run the risk of being considered a "mere naturalist" or "anatomist," and he throws up the "chair" from which he taught science as soon as he can get an appointment that will smooth his way to private practice. Men who can teach science cannot get appointments in Hospital schools, or, if they do, cannot live by them, nor get the means of working at science and attracting large classes of learners from the general public. They must be content to grind out the elements to a limited number of Hospital pupils, who won't learn what won't tell at the College and Hall. 5. In like manner, a person may have all the knowledge, aptitude, and machinery for teaching general and human anatomy, physiology, chemistry, mechanical and natural philosophy, and the theory or institutes of Medicine and pathology—subjects which are fit for the lecture-room and which might be taught anywhere. But no; these sciences must not be taught, save within the precincts of a building for the treatment of the sick. If we needed examples to damn the present system, we need only point to two of the ablest experimental physiologists in England—Beale and Richardson. Beale throws up a "chair" of physiology in disgust, because, under the miserable monopolies and limitations of the present system, he could not teach nor work at physiology as it ought to be handled; and so he fell back on practice. Richardson fills his house to overflow with pupils who come to his lectures, because he can teach; but then his lectures, being delivered in his own dining-room, are not "recognised" like those delivered by some wearied aspirant to the empty benches of a Hospital theatre.

What we demand is the establishment of a London school of science, of which the School of Mines is a nucleus, at which every branch of science, general or Medical—chemistry, natural philosophy, physiology, the theory of Medicine, anatomy, and the rest—shall be taught to students, to qualify them for the clinical practice at a Hospital. We demand, also, the liberty of teaching theoretical science for every man who has the ability. Science-teaching at present, so far as Medical schools are concerned, brings little honour and less profit; but many a young man would devote his life to science, and forego the larger emoluments of practice if he could but ensure a moderate competency, honourable position, and abundant opportunity for experiment.

ARMY MEDICAL DEPARTMENT.

The probability of the Medical service of the army being once more thrown open to competition in February next gives us an opportunity of again bringing to public notice a matter to

which we have already frequently alluded as a practical injustice and great hardship to Medical officers of the army who have lost their health in the service. It would, we think, be advisable for intending candidates to consider well before they irrevocably submit themselves to a system which places Medical officers in bad health in a much more unfavourable position than their military comrades under similar circumstances. We allude to the rule introduced by the War Office authorities in February, 1866, that Medical officers in bad health, even when induced by tropical service, or by exposure during epidemics, must, if not fit to return to duty at home or abroad at the expiration of six months after their appearance before a Medical Board at home, be placed upon temporary half-pay. No such regulation exists as regards military officers, who, we are assured, as a rule, are only placed upon temporary half-pay after periods of inefficiency, varying from eighteen months to two years, according to circumstances. As regards Medical officers it has, from its first enforcement up to the present time, been steadily inflicting an amount of accumulative hardship, which we have reason to know has utterly disheartened and disgusted not only those who have actually suffered from it, but others, as yet only a little less unfortunate, who know not when their own day may come. Six months on half-pay to an Assistant-Surgeon of twelve or thirteen years' service means not only loss of pay but supercession by forty or fifty of those below him on the list and a postponement of promotion for perhaps three or four years; and he thus incurs for temporary loss of health a penalty which permanently affects him, both pecuniarily and in departmental position, while his military comrade is granted the chance of exemption from duty for eighteen months or two years, for the recovery of his health, before losing either pay or position. The grievance is a very solid one. Its injustice is so obvious that one might almost think that the mere mention of it would ensure its removal. The War-office, however, has never been very sensitive to remonstrance from those under its control; but we hope, by attracting attention to this matter, to elicit such a manifestation of public opinion as will convince even the War-office that the position of Medical officers, as regards half-pay on account of bad health, must be remedied before the Department can be contented or candidates of a good class be obtained.

EXCISION OF THE HEAD AND NECK OF THE FEMUR IN CONSEQUENCE OF GUNSHOT INJURIES.

Previous to the late American war, there were on record only twelve cases of excision of the head of the femur for gunshot injury, with one success. Seven of the operations were primary, three intermediate, and two secondary. Six of the cases, including the solitary success, occurred in the practice of our Surgeons during the second period of the Crimean war, five of them being primary, whilst the sixth belonged to the class termed "intermediate" by Dr. Otis, U.S.A., rather than to secondary operations. To Surgeon-Major O'Leary, late of the 68th Regiment, but now of the Royal Horse Artillery, belongs the credit of having first achieved success in this important branch of conservative Surgery. The patient was wounded on August 19, 1855, over the great trochanter of left femur, by a fragment of shell weighing about three-quarters of a pound. The projectile remained imbedded in the wound, and the neck of the bone was fractured in a direction obliquely downwards between the trochanters, and upwards within half an inch of the cartilage covering the head of the bone. The operation was performed on the day after the receipt of the injury. A single straight incision was employed. No difficulty was experienced in removing the head of the bone from the acetabulum, and the shaft was sawn through about half an inch below the small trochanter. The limb was suspended in a sling, and slightly abducted, with the heel considerably elevated. The most careful dressing, generous diet, and the use of the air-bed, contributed to the successful issue. At the end of the twelfth week, the patient was able to leave his bed and move about on crutches; and on January 16, he embarked with other invalids for England. There were then only two small sinuses, discharging a very small quantity of thin purulent matter. He was gradually regaining power over the limb, and was able, to a limited extent, to flex the thigh upon the leg, and the leg upon the pelvis. There was apparent shortening to the extent of about four inches, and the foot was slightly inverted. On the arrival of the patient at Chatham, the limb was reported as being only two and a half inches shorter than the other, and capable of bearing a considerable portion of the weight of the body. He could swing it and advance it, but the knee could not be bent. Rotation was admitted to a very limited extent, but was performed with considerable pain. The wound was soundly healed, and the man was discharged from the service. The further history of this man's case shows that he died ten years afterwards from phthisis. He never regained the power of using the limb without support, but required the aid of a crutch and stick to enable him to walk.

In the "intermediate" case, in the Crimea, the wound was received on June 18, and the operation was performed on July 6. The progress was at first favourable, but on July 9 the patient was attacked by cholera, and died on the 10th. This was the first excision of the hip undertaken in the Crimea, and was performed by Dr. G. H. B. Macleod, of Glasgow.

It is our intention to confine our remarks to excision of the head and neck of the femur in the practice of military Surgery, the operation being now thoroughly established in civil practice in cases of disease of the joint, particularly in young subjects.

The late American war opened a rich mine of material for the investigation of this and all other subjects of interest to the military Surgeon. The zeal and ability with which the work of recording all the Medical and Surgical results of that great contest was performed, have received a lasting and most valuable memorial, in the splendid series of circulars and reports from the Surgeon-General's office, published by the War Department at Washington. Circular No. 2, of January 2, 1869, compiled by Dr. Otis, Assistant-Surgeon and Brevet Lieut.-Col., U.S.A., is chiefly devoted to "Excisions of the Head of the Femur for Gunshot Injury;" it also contains information additional to that published in Circular No. 7, of 1867, in regard to amputations at the hip-joint, and is altogether such an admirable contribution to Medico-military literature, that we are glad to avail ourselves of its guidance in laying before our readers a *résumé* of the present state of our knowledge on the subject now before us.

Dr. Otis vindicates the classification of the major amputations and excisions used by the Surgeon-General of the United States army into "primary, intermediate, and secondary." He maintains, notwithstanding the cavillings of students of the closet and Surgeons in civil life, that the study of the history of over twenty thousand major amputations and of more than four thousand excisions of the larger joints, gives him a right to declare that there is no doctrine more fully established in military Surgery than that which teaches that, in operations for traumatic causes, there is a wide difference in the results of those performed immediately after the reception of the injury, those performed during the existence of inflammatory action, and those done after the symptomatic fever and inflammatory symptoms have abated. Boucher was the first to formally define these periods, in a memoir addressed to the French Academy of Surgery in 1752. His division was adopted by Guthrie, and commands the approval of the vast majority of modern military Surgeons. Dr. Otis classifies as *primary* operations those performed in the interval between the reception of the injury and the commencement of the inflammatory symptoms, a period rarely exceeding twenty hours, although,

in rare instances, prolonged to thirty-six or forty-eight hours. As *intermediate*, those performed during the existence of the inflammatory stage, a more variable period, extending over one, two, or three months; as *secondary*, those excisions performed after inflammation has subsided, the traumatic phenomena have abated, and the local lesions have become analogous to those resulting from chronic disease.

The historical review of this operation given by Dr. Otis is exhaustive. He traces its history from the first recorded formal proposition for its performance, made in February, 1769, by Charles White, F.R.S., Surgeon to the Manchester Infirmary, down to the latest times. The first real excision of the head of the femur upon the living subject appears to have been performed by Mr. Anthony White, of Westminster Hospital, in April, 1822, the patient being a boy suffering from disease of the joint, with dislocation of the head of the femur on the dorsum ilii. The result was successful; the patient lived for five years after the operation, with a very useful limb, and died from consumption.

The first recorded instance on account of gunshot injury occurred in 1829. It was a primary operation, performed by Dr. Oppenheim, of Hamburg, then in the Russian military service. Up to the seventeenth day the patient did well, but a case of plague having occurred in the ward, unfavourable symptoms set in, and the case terminated fatally.

No recommendation of this operation can be found in Mr. Guthrie's writings prior to 1831, so that Dr. Otis does not admit his claim to have been the first to propose it, although his great authority was influential in establishing it as a legitimate resource in military Surgery. In 1831, Mr. Syme also expressed his opinion in its favour, in cases when the head of the thigh-bone has been broken into pieces by a musket bullet, without injury of the great blood-vessels or nerves, or extensive laceration of the muscles. Mr. Guthrie, Sir Philip Crampton, and Sir George Ballingall, seeing the impulse given to the operation in cases of disease by the teachings and example of Sir Benjamin Brodie and Sir William Fergusson, in 1836 and 1845, earnestly advised its adoption in military Surgery. In France, however, it continued to meet with disfavour, and it was not till 1847 that Roux ventured to disregard the precepts of the masters, although Gerdy in 1839 hinted that it might in cases of gunshot wounds be preferable to amputation of the joint.

The second case of this operation in the Crimea occurred under the care of Surgeon-Major Blenkins, of the Grenadier Guards. The patient lived for five weeks, and was doing well until suppuration of the knee-joint supervened. Mr. Blenkins, in an article in the eighth edition of Cooper's Surgical Dictionary, expresses himself strongly in favour of the operation. He does not think that absolute inutility of the limb should invariably be its result, but hopes that, after a sufficient interval of time, to allow of consolidation of the parts, and the limb has been duly exercised, a certain amount of motion, strength, and usefulness of the new joint may be regained—a prediction which, Dr. Otis remarks, has since been completely verified, and is a remarkable example of the foresight of a good pathologist and Surgeon of great practical experience. The other excisions of the head of the femur in the Crimea were performed by Staff-Surgeons J. Crerar and George Hyde, and by Dr. Coombe, of the Royal Artillery.

The average duration of life in the eleven unsuccessful cases prior to the American war was nine days—a contrast to the speedily fatal results of the majority of hip-joint amputations, although a single success in twelve operations was not a very encouraging record.

During the whole of the late American war there were recorded sixty-three cases of excision at the hip-joint for the immediate or remote effects of gunshot injuries, of which sufficient details were preserved to make them available for statistical purposes. Forty-eight were performed by Union, and fifteen by Confederate Surgeons. Thirty-two were "primary," twenty-two "intermediate," and nine were "secondary." In twenty-three cases the operation was performed on the right side, in thirty-six on the left, and in four the side is not recorded.

Of the thirty-two primary excisions, two only were successful, giving the high mortality rate of 93·75. The mean duration of life in the unsuccessful cases was a little over seven days, the average being increased by the protracted struggle for life of one patient, who survived sixty days. The majority died in two or three days from the combined shock of the injury and of the operation.

Of the twenty-two "intermediate" excisions, two resulted successfully, being a mortality rate of 90·9. The shortest interval between the receipt of the injury and the operation was two days, and the longest twenty-eight days; the average interval was thirteen and a-half days. In the twenty unsuccessful cases the average duration of life was twelve and a-half days. In one case the patient survived seventy-five days, and apparently succumbed to climatic influences, and not to the effects of the operation.

Of the nine "secondary" excisions, one was successful; the mortality rate was therefore 88·8 per cent. This will probably always be an infrequent operation, as the number of patients with gunshot injuries of the hip-joint who survive till the secondary period without operative interference is very small. The average duration of life in the unsuccessful cases was sixteen days. One of the patients survived a hundred days, and the remainder less than a week. The shortest interval between the receipt of the injury and the operation was thirty-three days, and the longest two hundred and four days; the average interval was two and a-half months.

In addition to the sixty-three authenticated cases above noticed, Dr. Otis gives particulars of ten other operations, nine of which were intermediate, with one success, and one was secondary. The results of all are shown in the following table:—

Excisions at the Hip-joint for Gunshot Injury.

	Cases.	Successful.	Fatal.	Percentage of deaths.
Prior to 1861—				
Primary	7	1	6	85·71
Intermediate	3	—	3	100
Secondary	2	—	2	100
Cases in the American war—				
Primary	32	2	30	93·75
Intermediate	22	2	20	90·90
Secondary	9	1	8	88·8
Recent cases—				
Intermediate	9	2	7	77·77
Secondary	1	—	1	100
Total	85	8	77	90·58

Three modern writers on military Surgery—Dr. H. Demme, Professor N. Pirogoff, and Dr. S. W. Gross—have latterly taught that the expectant plan of treatment of gunshot injuries of the hip-joint is inadequately appreciated by Surgeons, and that the commonly received opinion that such cases are uniformly fatal when left to the resources of nature, is fallacious. Dr. Otis does not deny that in very rare cases life may be preserved after such injuries without operative interference, but on an analysis of the thirty-one cases of alleged recovery under expectant treatment depended upon by these authors to support their opinion, he detects so many blunders and inaccuracies of diagnosis as to the hip-joint having been injured at all, that he does not admit that they have fairly demonstrated their case.

Dr. Otis then proceeds to show that of 122 cases on the records of the Surgeon-General of the United States army, in which there was undoubted injury of the hip-joint, uncomplicated by lesions of the pelvis or of the great vessels or nerves, 114, or 93·45 per cent., were fatal. The average duration of the fatal cases was thirty-one days.

Of 183 recorded amputations at the hip-joint, 62 of which were during the American war, 18 recovered, 3 are doubtful, and 162 died—giving a mortality of 90 per cent., omitting

the 3 doubtful cases. On these figures he remarks, that if the question admitted of an arithmetical solution, it might be concluded dogmatically that operative interference was always indicated, and that amputation was preferable to excision. The endless variety of the injuries, the different conditions under which the patients were, and the inevitable imperfection of all Surgical records, forbids any such rigorous comparison; but on analysing all the circumstances, which Dr. Otis has done with singular ability and perspicacity, he considers that certain rules may be fixed whereby the largest proportion of patients may be saved; they are shortly as follows:—That amputation at the hip-joint should be performed, when the thigh is torn off, or the upper extremity of the femur comminuted with great laceration of soft parts so close to the trunk that amputation in the continuity is impracticable; when a fracture of the head, neck, or trochanters is complicated with a wound of the femoral vessels, or by a severe compound fracture of the limb lower down, or by a wound of the knee-joint. Two other possible contingencies are, when without fracture a ball divides the femoral artery and vein near the crural arch, and when besides fracture in the trochanteric region there is such extensive longitudinal fissuring as to preclude excision.

Secondary amputations and re-amputations at the hip, in military Surgery, become necessary when caries, necrosis, or chronic osteo-myelitis put the patient's life in jeopardy.

"Primary" excisions of the head or upper extremity of the femur should be performed in all uncomplicated cases of gunshot fracture of the joint. "Intermediate" excisions are applicable to cases in which the diagnosis is not made out till late; also in cases of fracture of the trochanters with consecutive arthritis. "Secondary" excisions are demanded by caries of the head of the femur, or secondary involvement of the joint from fractures in the trochanteric region, or wounds of the neighbouring soft parts. Expectant treatment is to be condemned in all cases in which the diagnosis of direct injury to the articulation can be clearly established.

He further advises that when the diagnosis is uncertain, the Surgeon should make such incisions as will permit a satisfactory exploration. If the head or neck of the femur be injured, excision should be performed; if the joint be not involved, the incisions will be useful in providing means of escape for discharges, or for the extraction of foreign bodies.

Even when unsuccessful in preserving or prolonging life, excision of the hip in gunshot injuries is insisted upon by many observers as useful in diminishing suffering. Dr. Otis, from the evidence accessible to him, comes to the conclusion that unsuccessful excision of the hip-joint for gunshot injury, as compared with the expectant treatment, while it mitigates suffering, will abbreviate life, but that its shock is incomparably less than that of amputation.

THE WEEK.

TOPICS OF THE DAY.

The appeal which Mr. Christopher Heath has made to the Profession to contribute funds for obtaining a judicial settlement of the question of the right of the Corporation of the Royal College of Surgeons of England to elect the representative of that College in the General Medical Council is, at least, a proof of his zeal and enthusiasm in the cause which he has undertaken. It may be doubted, however, whether his appeal will meet with a very general response. In the first place, to commence an action against the Council of the College, in order to determine the legal construction to be put on its charter seems a line of conduct of an aggressive character, which is, to say the least, premature, considering that the Council of the College have at the present time a motion before them for discussion, proposed by one of their own members, on the propriety of giving the Fellows and Members a voice and representation in the General Medical Council. The present Council of the Royal College of Surgeons is a body elected by those very Fellows whom Mr. Heath is now asking to subscribe their guineas in order to commence a lawsuit against their own representatives. It is true that the object of Mr. Heath's appeal is to obtain a definition from a law court of the legal meaning of the College charter. But that the meaning hitherto set upon that charter by the College, acting under the highest legal advice, is a wrong one, it will, we suspect, be very hard to prove. Of course the Council of the College will maintain and defend their view of the matter. If that view be right, legally speaking, the money which Mr. Heath is asking for will have been wasted; but, supposing it to be mistaken, the result will only be that the Fellows of the College will elect directly a representative in the General Medical Council whom they now indirectly elect through their representatives in the Council of the College. We have always supported what is called indirect representation of the Profession in the General Medical Council, and we believe that if that body is to last, and especially if it is to have legislative functions imposed upon it, it must be placed upon a broader basis than at present. But in the case of many of the bodies there represented, this can only be done by Act of Parliament. In that of the College of Surgeons, it may be fairly maintained that the Fellows of the College are more truly represented in the General Medical Council than any other Professional body. The present representative of the College, Mr. Quain, was himself elected into the Council of the College by a majority of the Fellows, and again he has been chosen by other members of the Council, who are themselves the chosen representatives of the Fellows to represent the whole College. The fact is, that the only persons who are not represented are the great body of Members. Our objections, therefore, to Mr. Heath's proposal are two-fold. First, it is premature, for the Council of the College have yet to discuss the question of whether it be advisable that the Fellows and Members of the College should be represented in the General Medical Council; and secondly, it is unnecessary, at least, as far as the Fellows are concerned, for they have more truly their own representative in the General Medical Council at this moment than any body of Professional men equal to them in number in the United Kingdom.

We are sorry to hear that the question of the admission of women to one of our London Medical schools has been again raised. We hear that the authorities of St. Thomas's Hospital have been requested to receive two ladies as Medical students. Before their decision is known, we may be permitted to observe that the experiment of instructing the youth of the two sexes together in Medicine and the allied sciences, has been tried in the United States, where it has been found to fail, being found incompatible with the decent and decorous pursuit of Medical studies. It has been tried in the University of Edinburgh, where it has been the source of heart-burning and quarrel; and it has been strenuously and hitherto successfully objected to by the male students of every English school in which it has been proposed. We have no hesitation in expressing our opinion that it is *contra bonos mores*, and we cannot conceive that any father or guardian would allow his son to occupy a place on the bench of an anatomical theatre with a person of the opposite sex. That any women should be found who desire such a fellowship in study is to us inexplicable. As we have repeatedly said, let women, if they desire it, be educated for the Medical Profession; we do not believe that the necessary education is fitting for the sex, or that they are constitutionally suited for its duties—but that is their affair, not ours. But we do ask, in the name of the modesty which, at one time, was considered the brightest ornament of womanhood, that they should have separate places of Medical education and examination. The English Medical curriculum is not intended for the fair sex. Neither of the Royal Colleges will examine them, and it is well known that the regulations of the Court of Examiners of the Apothecaries' Society are such as they

cannot readily fulfil. We are certain that any Medical school which shall admit students of the two sexes to study together in its theatres and dissecting-rooms will inevitably and speedily decline in position as a training-place for Medical men.

We are glad to hear that a joint committee, formed of members of the Poor-law Medical Officers' Association and of the British Medical Association, together with some other gentlemen who take an interest in Poor-law matters, will meet in the last week of the present month for the purpose of furthering the cause of Poor-law Medical reform. The committee includes the names of J. Brady, Esq., M.P.; F. S. Corrance, Esq., M.P.; D. Dalrymple, Esq., M.P.; W. H. Smith, Esq., M.P.; Randolph Robinson, Esq.; Dr. Rumsey, Cheltenham; Dr. Heslop, Birmingham; Dr. Ransome, Manchester; Dr. Maunsell, Dublin; Dr. Carr, Blackheath; Mr. T. Spencer Wells; and Drs. J. Rogers, Gibbon, Corner, Aldis, Sutton, Barclay, Sedgwick. The committee will hold its meetings at the rooms of the Royal Benevolent Medical College.

The bearers of the red cross are said to be diminishing in the French battle-fields. As a large number of them were simply adventurers, who used the badge to obtain admission where they otherwise could not have gone and to travel cheaply, or loafers, whose object was to rob the dead and wounded, this is not to be regretted. We are sorry to observe that several of the correspondents from the seat of war bear testimony to the fact that English Surgery has been hitherto a drug in the market. In other words, that the German Surgeons have kept to themselves the cases which have required the most active Surgical assistance, and that many English Surgeons have been comparatively unemployed amongst the hosts of wounded.

A telegram from Dr. Thudichum, at Bingen, announces that the International Field Hospital there is now in working order. Mr. Simon and Dr. Thudichum have had a visit from the Crown Princess of Prussia, whom they conducted through the Hospital tents.

The Naval Medical Service is said to be languishing for want of volunteers. A long continuance in the system of snubbing the Doctors has borne its fruits, and Medical men are not to be obtained to fill the vacancies in the service. A competitive examination is announced to be held on November 7 at the London University. There are at least twenty-five vacancies to be filled.

The Highgate Infirmary is now completed, at the cost of about £55,000, or about £105 per bed. It will accommodate 521 patients, besides the staff of officers. The nursing department will be under a lady superintendent and a staff of Nightingale nurses. The managers of the London Central Asylum District have given notice to the Poor-law Board that patients can be received at the rate of twenty per diem.

Two summonses have been granted by Mr. Ellison, of the Lambeth Police-court, against the authorities of St. Thomas's Hospital, for making post-mortem examinations without the leave of the friends of the deceased. We should be very glad if this question were finally settled by one of the higher courts.

Cholera is prevalent in both hemispheres—at Kertch, in Russia, and in Havannah. At Kertch, up to September 17, there had been 318 cases. Of these 141 had died, 154 recovered, and 23 were still ill. At Havannah, on September 5, there were 53 deaths, and 80 on the 6th.

PROFESSOR PARKES, F.R.S.

We much regret to hear that Professor Parkes, F.R.S., has been compelled, in consequence of the serious illness of a member of his family, to give up his intention of visiting the Prussian army for the purpose of inspecting its hygienic arrangements.

THE CHAIR OF CHEMISTRY AT KING'S COLLEGE.

Pending the arrangements consequent on the lamented death of Professor Allen Miller, the chair of chemistry in King's College will be temporarily filled by Dr. Odling, who will lecture to the Medical students, and by Professor Bloxam for the students of applied science. It is not understood that either of these gentlemen will be candidates for the chair.

ST. MARY'S HOSPITAL.

The members of the staff, and the old and present students of this School, dined together at Willis's Rooms on Saturday, October 1, under the presidency of Dr. Sibson, F.R.S. The numerous attendance of former students now engaged in Professional work in various parts of the country, afforded gratifying proof that the pleasant associations of past times still preserved a strong hold upon their memories, and this meeting of friends and acquaintances was a most agreeable and successful one.

THE NATIONAL SOCIETY'S AMBULANCE.

The preparation of the ambulance of the National Society is, we understand, steadily advancing to completion at Woolwich, where, also, some of the Medical officers who have volunteered to accompany it to the seat of war are assisting in its equipment. We much regret to hear that Professor Longmore, C.B., has been compelled by ill-health to withdraw from the post of Medical director; his place will, we understand, be taken by Deputy Inspector-General of Hospitals, Thomas Guy, M.D., now principal Medical officer at Dover. Dr. Guy is a Medical officer of much experience, and was specially promoted on account of his services as sanitary officer to the Abyssinian expeditionary force. So far as we have been able to learn, the following are the names of the Medical officers likely to accompany the ambulance:—Deputy Inspector-General Guy, Medical Director. Surgeons: J. H. Porter, 97th Regiment; W. G. N. Manley, V.C. Royal Artillery; T. Ball, M.D., Staff; and James Jameson, M.D., Staff. Assistant-Surgeons: J. L. Power, Staff; G. W. McNalty, M.D., Staff; H. F. L. Milladen, M.D., 12th Lancers; J. V. T. Malcolm, M.D., Staff; Sandford Moore, M.B., 4th Dragoon Guards; G. W. Barroll, Staff; and A. A. Macrobin, M.B., Rifle Brigade. The list, however, is, we believe, not yet definitely decided on or sanctioned by the various authorities concerned.

THE GUY'S INTRODUCTORY LECTURE.

We have seldom assisted, to use the French phrase, at a more disgraceful or a more ludicrous affair than the Introductory Address at Guy's Hospital. This annual discourse has long been the signal for uproar, but this year it has culminated—the very Lord of Misrule was let loose. It was asserted that the men who were present and made the noise, if students at all, were not Guy's students, and were not freshmen; and among the loudest in condemning the riotous behaviour were the advanced students of Guy's Hospital. The ludicrous character of the scene was intensified by the plan adopted by the lecturer, Mr. Bader, who, perhaps anticipating a noisy audience, came with his address ready packed up for the post, and who told his audience they would have ample opportunity of reading it in the papers. But that they might not go away disappointed at having no address, Mr. Bader proceeded to relate to them certain episodes of his own student days, and introduced them to the clubs of a German University, and their duelling and drinking customs. There were also anecdotes of some feats of work performed on the nutriment of three apples three times a day and unlimited tobacco. The moral of the discourse—if moral there was—seemed to be, that to be a steady student was easy, but to be wild and hard-working at the same time was much more difficult. Would it thereby be more meritorious?

RESEARCH IN THERAPEUTICS—THE PHYSICAL METHOD.

THE study of the action of medicines by what may be called the physical method of research formed the subject of Dr. Richardson's introductory lecture on Tuesday. The points dwelt upon were :—Basic elementary constitution of medicines, physical qualities, chemical stability, action on different systems of the body, and differences of animal functions in relation to medicinal agents. At the close of the lecture the action of nitrite of amyl was considered, and two new series of medicines were brought forward — viz., the ethylates of sodium and potassium, and triethylic acid and trimethylic ether. The ethylates are powerful caustics. We shall present the whole lecture in an early number of the *Medical Times and Gazette*.

MEDICAL MISSIONS IN CHINA.

THE Report of the Medical Missionary Society in China for 1869 has just been issued. $475 are in hand. A Hospital and six dispensaries are in full working order. During the year, 45,000 patients were relieved; 524 persons vaccinated; 1051 operations, great and small, were performed. Amongst the former were 28 cases of lithotomy, 7 of lithotrity, 1 excision of the lower jaw, and 2 amputations. The Medical class has proved a success, three of the students having already completed their courses of anatomy, physiology, chemistry, Medicine, and Materia Medica. Moreover, a work on inorganic chemistry has been translated, and by this time, no doubt, is published.

DEATH FROM CHLOROFORM IN JAPAN.

CONSIDERABLE sensation has been created at Yokohama in consequence of a death following the administration of chloroform. After a protracted inquiry, a coroner's jury arrived at the verdict, "Death from the effect of chloroform, administered without proper degree of care." This is, in fact, a verdict of manslaughter, and the Surgeon who administered the chloroform (Dr. Dalliston) has been commited for trial, but liberated on bail in the sum of 5000 dollars. The case, as we gather from the somewhat confused evidence, was as follows :—Captain Gilfillan fell from his horse on a Sunday, and sustained a dislocation of the shoulder-joint. He was unable to procure Surgical aid until the Monday evening. Dr. Dalliston, who then saw him, finding it impossible to reduce the dislocation, suggested the use of chloroform, to which the patient consented, he being in great pain and unable to endure any further attempts at reduction. A bottle containing an ounce of chloroform was procured, and the drug was administered by Dr. Dalliston, a Mr. Howles holding the bottle and pouring out the liquid according to the Doctor's directions. The requisite degree of insensibility not having been obtained by the quantity used, more chloroform was sent for, and in the interim, about a quarter of an hour, the patient, as might have been expected, fully recovers from the effect of the first ounce, talking to his friends, and expressing his opinion that something stronger than chloroform will be required in his case to produce sleep. The second bottle, also containing an ounce, arriving, two doses were administered from it; but about a minute after the exhibition of the second dose the death of the patient suddenly took place—a spasm and cessation of the heart's action being the first things to attract the attention of the Doctor and his assistants. The chloroform was administered by pouring doses on a handkerchief, and successively inhaled. Some discrepancy existed in the evidence as to what was the exact amount of chloroform of the second ounce administered. But the mode of death is thus described by one of the witnesses: "About one minute after the second dose of the second bottle a spasm ensued, and then a total relaxation and collapse." One of the witnesses gave it as his opinion that the chloroform "was administered too rapidly; he had not seen it administered before." Now, it is a remarkable fact that in this case no *post-mortem* examination was made, neither was it suggested by Dr. Dalliston or any one else. The inquest so far was incomplete and unsatisfactory. The case, however, is most instructive, as showing what kind of evidence is occasionally deemed sufficient to bring in a verdict of manslaughter against a Surgeon in the execution of his duty. Take the following as specimens :—1. About a drachm is considered a dose of chloroform. 2. It is always advisable to have another Medical man present when you administer chloroform. 3. It is always advisable to examine the heart before administering chloroform. 4. Before administering chloroform I should examine the heart with a stethoscope: as a rule, this examination would determine whether the patient was a fit subject for treatment with chloroform. 5. It is a routine practice to use a stethoscope before giving chloroform. 6. Generally, chloroform is poured into a glass measure, and then is sprinkled on a handkerchief. 7. It is the comatose state which is the dangerous state. 8. It is necessary constantly to examine the heart. 9. Every Medical man using chloroform runs the risk of seeing the patient dying under his hands. 10. The heart's action is the only symptom by which one can know that it is not advisable to give a patient more chloroform. 11. The fact of the patient's sudden death under chloroform proves that too much had been given. 12. The patient may die under chloroform, even if he is not suffering from a weak heart. "In that case, I should attribute his death to being poisoned with chloroform insufficiently mixed with the air."

Undoubtedly there is a certain amount of truth in these statements; but they are not to be taken as the whole truth, and might exercise an influence on the jury not justified by the real facts. We need not point out to our readers in what the fallacies consist; and, indeed, in the absence of a post-mortem examination, we need not remind them that some of the statements are mere assumptions. However, at his trial we trust Dr. Dalliston may adduce evidence to exonerate him from all blame, for none fairly attaches to him.

Fortunately, public attention in Japan and China has been called to this case by a very able and exhaustive letter on the various statements made by witnesses, as given above. The author is Dr. Edward Henderson, Municipal Medical Officer and Health Officer at Shanghai. In this production Dr. Henderson analyses and criticises these statements in a masterly manner. The letter is published in the *North China Daily News*.

It is monstrous that a Medical Practitioner should be put upon his trial for manslaughter because he is the subject of an accident in practice which is by no means very uncommon, which has happened to the most experienced Surgeons and "chloroformists," and which no skill and no precautionary measures could prevent.

A CAUTION TO LADIES.

THE Rev. Harry Jones, writing to the *Guardian* newspaper from Arlon, one of the chief seats of the National Society for the Relief of the Sick and Wounded, thus gives his impressions of an ambulance and its work :—

"In going from chamber to chamber, filled with badly wounded Bavarians, I was enabled to realise what the nursing of the sick and wounded, which sounds so tempting and romantic to some enthusiastic young ladies, really is. This matter should be well understood by lovely enthusiasts. It is very pretty to think of holding a cup of wine to the lips of a wounded soldier, but he wants more attention than this. The washing of the disciples' feet sounds well at a distance, but if it were only that, the ladies who go out to the seat of war would be pleasantly employed. How can I say what I saw and smelt? Well, let us put it in one sentence. The work is disgusting and divine.

"And do not let people think that the profoundest unflinching devotion will always be repaid with gratitude. I saw something of this. These Bavarians are a mixed lot. There was one fellow in a great rage with an English lady who rightly would not give him what he asked for. He said the

port wine (which was excellent) was no better than tea. One of the assistants in the stores, who spoke only French, broke out with, 'By Jove! I only wish I could talk German; I'd give some of those fellows a bit of my mind.' Many, of course, are very grateful, and allowance must be made for a rough private soldier who had been living on little but potatoes for some days before he was wounded, and then laid on straw, helpless, untended, unwashed, for thirty-six hours. No wonder some tempers are spoiled by this. And my Bavarian's temper was terribly spoiled.

"It strikes me that there is some waste or misapplication of refined skill for trained lady nurses to do what the Sisters and others are doing in the English ambulances. I think that women who could speak neither French nor German, but who were well versed in nursing, and would turn up their noses at nothing, might well be supplied as assistants to those who go out. Certainly more help is needed. There are plenty of stores of medicine, food, wine, and appliances at Sedan, but the hands and the heads are too few. The nurses, etc., there, will, however, probably be moved on to some place where there is still greater need, as the wounded are sent off by the Prussians as fast as possible, and the number around this great battle-field shrinks daily. The necessities in the neighbourhood of Metz are very great, and will remain so."

FROM ABROAD.—THE LEGAL RELATIONS OF PATIENTS AND PRACTITIONERS.

We have from time to time noticed the charges of the judges of the different courts of the United States as remarkable for the lucid manner in which they state the relations which legally exist between patients and Doctors. One recently delivered by Judge Sutherland, as reported in the *Detroit Review of Medicine*, is an example in point. The plaintiff, Dr. Hesse, a Practitioner of good repute in Saginaw (Michigan), brought an action for the recovery of 32 dollars for attendance on the defendant's wife. Immediately after her delivery alarming hæmorrhage came on, during which it was supposed three quarts of blood were lost, and which Dr. Hesse, called in half an hour afterwards, succeeded in arresting. Next day he found the patient much better, and took his leave, desiring the husband to send for him if his services should be needed again. On the twelfth day he was sent for, and found the patient feeble. The lochial discharge continuing, tonics and astringents were prescribed, and, after a few days, the discharge being offensive, an examination was made, and some coagula removed. No alarming symptoms were set up until about three weeks after delivery, when she fell off rapidly in a state of general anæmia, having, also, partial paralysis just before death. On an action for recovery of payment, it was proved that great attention had been paid to the case, but the defendant appealed against the decision, and again lost his cause.

Judge Sutherland, charging the jury, made the following interesting statement:—

"The money claimed, however, is of trifling concern compared with some questions which the demand of the money has introduced for your consideration. The defence set up makes it necessary to decide questions of great moment to the public as well as to plaintiff. The defendant defends solely on the ground that the plaintiff did not perform his services as a Physician with due care, diligence, and skill; and that by reason of such carelessness and want of skill, his services were of no value. To decide whether the plaintiff failed in his duty, it is important that the jury have as definite a rule as can be given in respect to what is required. A Physician is not a warrantor or insurer of a case, and he is not to be tried by the result of his remedies. His only contract and duty is to treat the case with reasonable diligence and skill. He is bound not only to use such skill as he has, but to have and employ a reasonable degree of it. While the law will not countenance quackery, it does not require the most thorough education or the largest experience. He who professes to adhere to a particular school of practice must come up at least to its average standard, and must be judged by its tests, and in the light of the present day. . . . The common law has a peculiar regard for human life, and, for this reason, exacts a greater degree of care in respect to it than in relation to any mere matter of property. Accordingly, the law requires from all persons, including those who render gratuitous services, at least ordinary care for the safety of life; from those who render services for compensation, great care.

"A Physician employed to take charge of a woman in childbed has two general duties to perform with care and diligence—first, to ascertain and keep informed, as far as practicable, of the condition of the patient; and secondly, to direct the administration of suitable remedies to promote recovery. The first duty—that of ascertaining the condition of the patient—is not an absolute duty, but a duty to use the means and methods for that purpose sanctioned by science and experience, as understood by well-instructed Practitioners of the same school, and to pursue the inquiry and examination with reasonable thoroughness. He is not answerable for the error of an enlightened judgment, but he cannot interpose his judgment contrary to that which is settled. He must apply without mistake what is settled in his Profession. He cannot try experiments with his patients to their injury.

"We are reminded, by the evidence shewing the great complexity of the human organism, that 'we are fearfully and wonderfully made.' Every present or threatened derangement is not at once manifest. Certain conditions may be readily ascertained; others must be inferred—arrived at by reasoning; judgment must be exercised. What are the safe conditions of a woman just delivered of a child have been stated with unanimity and precision by the experts. There is required—first, the complete removal of the placenta with the usual membranous attachments; and, secondly, prompt measures to prevent all excessive loss of blood. It is agreed by all the witnesses that at the time of the plaintiff's first visit he promptly arrested the flow of blood; but it is insisted in the defence that there was a subsequent loss, impoverishment, or poisoning of blood in consequence of the first requisite not being duly attended to. When the Physician has an opportunity to examine the placenta, it is conceded that, by inspection, he can decide with certainty whether it is intact, or any part detached so that further examination is required; and it is agreed, on all hands, that this means of information is very important. If this is neglected, or is impracticable, other satisfactory tests may be resorted to. The jury will have to decide whether the plaintiff was, in this part of his duties, reasonably diligent. Was he prevented from examining the placenta by its removal beyond reach before his arrival, or was he so informed in answer to his inquiry for it? If so, did he diligently pursue his investigations otherwise, by acting on the information from the midwife, and the results produced, and the conditions ascertained by abdominal manipulation? If he pressed his inquiries and his examination far enough to form a reliable judgment, or such as thoroughly educated Physicians would ordinarily, under like circumstances, form and act upon, he cannot be held responsible for coming to an erroneous conclusion, though other tests might have been used and were not.

"The same rule of duty applies to his subsequent oversight of the case; and his treatment of the patient otherwise in all the stages of illness, including the application of remedies, must be characterised by reasonable care and competent skill, tried by the average standard of educated Practitioners. If the patient died from the effects of loss of blood at the time of delivery and afterwards, or the failure of medicines, or the omission of medicines to invigorate her, still if the plaintiff used reasonable care and diligence, considering the nature of the case and the general state of Medical knowledge and experience, he performed his duty, notwithstanding the result. So, should the jury find that in some parts of the plaintiff's treatment there was a want of diligence or skill, but the prejudicial effect was slight and temporary—was not the obstacle to the recovery of the patient, and did not contribute to her death—it may be disregarded. It is a self-evident proposition that negligence which does no injury cannot be the basis of an action, nor detract from the value of otherwise meritorious services. On the other hand, should the jury find that the defendant's wife was in a condition, from time to time, which the plaintiff could have ascertained by reasonable diligence and skill, and he failed to ascertain her condition; or, after having learned her condition, if it appears that, by a diligent exercise of reasonable skill in the use of remedies well known to educated Physicians, he could have saved the patient, and by failing in this due administration of remedies his treatment was unsuccessful, he cannot recover."

The yellow fever is very prevalent and fatal at New York.

REVIEWS.

The Celtic Origin of a Great Part of the Greek and Latin Languages, and of Many Classical Proper Names, Proved by a Comparison of Greek and Latin with the Gaelic Language, or the Celtic of Scotland. By Thomas Stratton, M.D. Edin., Deputy Inspector-General Royal Navy. Second Edition. Edinburgh: Maclachlan and Stewart. 1870. Pp. 100.

The author of this work is a naval Surgeon of more than thirty years' standing, who has seen service in the most distant parts of the globe, and has given evidence of large experience and of great powers of observation by the number of his published papers in the *Edinburgh Medical Journal*. He has written on gunshot wounds, intermittent fever, and malarious and scarlet fever; on the diseases of emigrants and of the North American Indians; on poisons, antiseptics, and the Medical statistics of the navy. Now we find him exhibiting that sure sign of early scholarship; he reverts to the philological studies of his younger days, and gives us a collection, in an enlarged form, of three essays on the Celtic language which he had before published separately. He expresses the wish that the number of Gaelic- and Cymric-speaking persons in the British Isles should be ascertained at the census of 1871; but, alas! there are many other things desirable to be learned from a census, which we fear must remain in the list of things hopelessly wished for.

In the plan of his work Dr. Stratton lays himself open to the criticism that he assumes the Celtic to be the mother of the Greek and Latin, instead of the sister, and takes similar words in these latter languages as derived from Celtic, whereas Greek, Latin, Celtic, and the other branches of the so-called Indo-Germanic or Aryan family may with more probability be considered derivatives from some pre-existing tongue, the common parent of all. Three thousand years hence a scholar might be attempting to show that the French, Provençal, Italian, and Spanish were derived from the Italian, instead of allowing all to be derived from the Latin. As Dr. Stratton promises a third edition, we would venture to suggest that it would be better if all the separate parts were amalgamated into one, that it is needless to cite compound words of Greek and Latin, and that an enumeration of roots would be far more satisfactory. For example, such words as κατήχειν, catechism, etc.—if the ἦχος, which is the Greek root of the word, is represented by the Celtic "eigh," any number of secondary and derived words must, as a matter of necessity, follow their root. Lastly, many a reader would be gratified if the space gained by the omission of compound words were filled by a larger addition of proper names of persons and places, with their etymology. We should like the names of all the rivers, tribes, and persons in Gaul and Britain mentioned by Cæsar, Polybius, and Tacitus, with their interpretation, if any. Dr. Stratton may amuse himself with an ordnance map, and tell us how many Celtic names survive in different districts of England. Day by day the Celtic element in philology becomes more important, and the investigation thereof a fitting task for the dignified retirement of an *emeritus* Physician and scholar.

Sleep and its Derangements. By William A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System, and of Clinical Medicine in the Bellevue Hospital, New York; late Surgeon-General U.S. Army, etc. Pp. 318. 1869. Philadelphia: Lippincott and Co.; London: Trübner and Co.

Dr. Hammond has been for many years well known in this country as one of the most eminent American physiologists of the present generation, and the unassuming little volume whose title stands at the head of this article, although of a more popular nature than any of his preceding works, will, if possible, tend to increase his high reputation. The subjects of which it treats are sleep and dreams, somnambulism, wakefulness, and somnolence. The first chapter, on "the Necessity for Sleep," requires no special notice, and we proceed at once to the second chapter, in which "the Causes of Sleep" are discussed. It is almost needless to observe that Dr. Hammond adopts the generally accepted opinion that "sleep is due to diminished flow of blood to the head." We are glad to see that in his remarks on this subject he does full justice to Dr. Alexander Fleming, of Birmingham (late Professor in Queen's College, Cork), whose experiments, although published as early as 1855, were overlooked by Mr. Durham, whose excellent memoir on "The Physiology of Sleep" did not appear till four years subsequently. By a curious coincidence it so happened that while the volume of the "Guy's Hospital Reports" containing Mr. Durham's investigations was passing through the press, Dr. Hammond was carrying on an almost precisely identical set of experiments, which he now for the first time publishes in this volume. Quite recently he has devised an experiment that is, if possible, more convincing than those previously made by Mr. Durham and himself. By means of an instrument adapted to show the extent of cerebral pressure he has been able to arrive at very positive results, and he invariably found that the pressure was lessened during sleep and was increased during wakefulness. The animals on which he operated were dogs and rabbits. The instrument consists of a brass tube, with both ends open, which is screwed into a round hole made in the skull with a trephine. Into the upper end is screwed another brass tube, the lower end of which is closed by a piece of very thin sheet indiarubber, and the upper end with a brass cap, into which a glass tube is fastened. This glass tube is graduated, and contains coloured water. The apparatus is applied as follows:—The second brass tube is screwed into the first tube till the indiarubber presses on the *dura mater* and the level of the coloured water stands at 0, which is in the middle of the scale. When the animal goes to sleep the liquid falls in the tube, showing that the cerebral pressure is diminished; when the animal awakes the liquid at once rises. Nothing, apparently, can be more satisfactory than the evidence thus afforded.

If Dr. Fleming's experiment of inducing sleep, by pressure applied to the carotid arteries, were perfectly harmless, we cannot help thinking that it would have attained a wide general application. The following paragraph may possibly explain this apparent anomaly:—

"I have never repeated Fleming's experiment on the human subject, except in one instance, and then sleep, or a condition resembling it, was instantaneously produced. As soon as the pressure was removed from the carotids the individual regained his consciousness. On dogs and rabbits, however, I have performed it frequently; and though, if the pressure be continued for longer than a minute, convulsions generally ensue, a state of insensibility resembling natural sleep is always the first result." P. 41.

Passing over the third chapter, on "the Physical Phenomena of Sleep," we arrive at the subject of "the Mental Condition during Sleep," which is illustrated by many curious cases, and is in all respects well deserving of study. The final results at which the author arrives in reference to this question are—that during sleep the three great divisions of the mind are differently affected.

"1. Feeling, embracing sensation and emotion, is suspended so far as the first is concerned, but is in full action as regards the second. We do not see, hear, smell, taste, or enjoy the sense of touch in sleep, although the brain may be aroused into activity, and we may awake through the excitations conveyed to it by the special senses. The emotions have full play, unrestrained by the will, and governed only by the imagination.

"2. The will or volition is entirely suspended.

"3. The thought or intellect is variously affected in its different powers; the imagination is active, and the memory may be exercised to a great extent; but the judgment, perception, conception, abstraction, and reason are weakened, and sometimes altogether lost." P. 106.

The two next chapters, on "the Physiology of Dreams" and on "Morbid Dreams," abound in interesting cases, many of which are original. The instances that are recorded, of special classes of dreams preceding special diseases, and of dreams that make so strong an impression on the mind as to give rise to insanity, are especially worthy of notice. Dr. Hammond seems to have had a large experience in cases of nightmare. One of his patients was visited almost nightly by a huge black walrus, which appeared to roll off a large piece of ice, and, crawling up the bed, to settle on his chest. Another was tormented by an animal, half lion and half monkey, which seemed to fasten its claws in his throat while seated on his breast. A lady patient of his suffers from the following peculiar form of nightmare: she imagines that she is standing on the top of a high mast, and in extreme fear of falling; or that she is being dragged through a keyhole by some invisible power. An intermittent case, in which a young lady suffered every second night, recently fell under his notice, and was at once relieved by quinine; but the medicine that he has generally found most successful is bromide of potassium, in doses of from twenty to forty grains three times a day.

In the chapter on "Somnambulism" the author describes three cases that have come under his own notice. On one of the patients—a young lady—he made a number of experi-

ments, which conclusively showed that the functions of the senses of sight, hearing, taste, and smell, together with ordinary sensation, were in a state of abeyance. This, however, is not a universal rule. In hypnotism, which is merely an artificial form of somnambulism, there is sometimes a remarkable exaltation of the sense of smell. Dr. Carpenter relates the case of a patient of Mr. Braid's, who, when hypnotised, discovered without difficulty the owner of a glove placed in his hand, in an assembly of more than fifty persons. One or more of the senses of hearing, smell, and taste are occasionally exercised; while the sense of touch (according to the author), so far from being diminished in its action, is invariably much exalted, so that by its exercise the patient can usually guide himself safely along the most dangerous paths and devious passages. A distinction is here made between the sense of touch and ordinary sensation. In the case of the young lady just referred to, "scratching the back of her hand with a pin, pulling her hair, and pinching her face appeared to excite no sensation. On tickling the soles of her feet, she at once drew them away, but no laughter was produced." Is it not rather the muscular or sixth sense rather than the sense of touch—the sense that enables a blinded bat to fly safely about a cavern without ever striking the walls—that is in these cases specially exalted?

For the practical Physician the three chapters on "Wakefulness" constitute the most important part of the volume; but as they have already appeared in an abbreviated shape in a well known American Medical journal we shall make no reference to them in this article.

In the concluding chapters, on "Somnolence," which seem somewhat out of their proper place, the reader will find an account of a very singular African disease, which is regarded as incurable, and from its predominating symptom is called the "sleepy disease."

We are using no terms of exaggerated praise in stating that Dr. Hammond's book may be studied with equal interest and advantage by our own Profession and the reading public at large.

Traité des Fistules Uro-Genitales de la Femme. Par. M. L. Deroubaix, Chirurgeon des Hôpitaux Civils de Bruxelles; Médecin Consultant de S.M. le Roi des Belges, etc., etc. Bruxelles: Henri Manceaux; J. B. Baillière et Fils, Paris. 1870.

Treatise on Uro-Genital Fistulæ in the Female. By M. L. Deroubaix, Surgeon to the Civil Hospitals of Brussels, Consulting Physician to His Majesty the King of the Belgians, etc., etc.

This bulky volume, containing over 823 pages, must contain, we imagine, almost everything that has been hitherto made known concerning the nature and treatment of fistulous communications between the female bladder or urethra on the one hand, and some part of the genital canal on the other. The object of Dr. Deroubaix in the preparation of the book in question, as stated in the preface, has been to impress upon the minds of his Professional brethren the amount of good that can be done in cases of this kind by operation, and the facility with which a successful plan of treatment can be carried out by adroit and prudent Surgeons, possessing the faculties of comprehending the necessary means and conducting them to a favourable issue. It may be questioned, however, whether this laudable intention would not have been better furthered by a work of less formidable dimensions. The busy Surgeon in this country, in his search for information on any special malady, is fully content if he finds nothing more in the books consulted than brief and clear descriptions of the symptoms of the affection in its different forms, followed by the indications for treatment, and remarks on the principal plans carried out by modern Surgeons, with the opinions of the author upon disputed points. Dr. Deroubaix has given us a work of a very different kind. We have here a treatise written in a clear style, and manifesting much earnestness and untiring labour on the part of the author, but one tediously minute in its details, and likely to prove a cause of much mental embarrassment to any one who may have occasion to consult its pages for the purpose of gleaning some practical hints as to the treatment of the very common affection on which it treats. To those specially engaged in the treatment of the Surgical affections of women, we can, however, most warmly commend Dr. Deroubaix's book as a very valuable work for reference.

The first section of this volume, which is styled "Un Examen Historique et Synoptique," gives clear and full descriptions of the different plans of treating uro-genital fistulæ practised from the middle of the seventeenth century, when a work on this subject was written by Van Roonhuyse, a Dutch Surgeon, up to the present time. Here the author discusses very fully the important modifications in operative treatment for which this branch of Surgery is indebted to American Practitioners and to Prof. Simon, of Heidelberg. We find in this portion of the work a full recognition of the successful attempts that have been made by modern Surgeons in our own country to remove vesico-vaginal fistulæ from the list of incurable diseases, to which this frequent affection had been relegated by Liston and Miller, in their widely-spread text-books of Surgery.

In the second section we meet with chapters on the pathological anatomy, the causes and symptoms, and finally the treatment, of uro-genital fistulæ. The remarks on the operative proceedings for direct, immediate, and indirect obliteration of these openings, though describing no great innovations on established methods, deserve careful perusal, as every detail bearing upon the practical application of these methods is discussed clearly and minutely. Here we meet with some valuable remarks upon certain minor points in connexion with the actual operations—such, for instance, as the position of the patient during the operation, the administration of chloroform, and the use of the catheter during the after-treatment.

Dr. Deroubaix seems to have no special preference for any one of the four positions in which a patient may be placed during an operation for the closing of vesico-vaginal fistula. He holds that on this point it is advisable to take into consideration the convenience and sensations of the patient so far as these are compatible with a good light and an accessibility of the fistulous opening. He thinks that the Surgeon will generally be induced to prefer the dorsal decubitus when the fistula is near to the vulva, the kneeling position when the opening is placed at the summit of the infundibulum or behind masking adhesions, and the pelvi-dorsal position in cases where the margins of the fistula are depressed or not clearly defined.

To the administration of chloroform in these cases, Dr. Deroubaix is entirely opposed. The operation, he says, is not a very painful one, and rarely causes suffering so severe as to necessitate its suppression by anæsthesia. The employment of this agent, moreover, is incompatible with certain positions in which it may be necessary to place the patient, and the operation frequently lasts for so long a time that the influence of chloroform cannot be kept up without danger. Anæsthesia, Dr. Deroubaix holds very justly, cannot produce dilatation of a contracted vagina, as this condition is due to a natural conformation of the canal to accumulation of fat, to adhesions, etc., and never to muscular spasm.

Dr. Deroubaix advocates the plan of retaining a catheter in the female urethra after the operation for closing vesico-vaginal fistula. He states that though the use of this instrument be not an infallible means for avoiding all the dangers it is supposed by some Surgeons to prevent—the chief danger being the contact of urine with the parts operated upon—and that catheterism may sometimes be attended with inconvenient results, the good obtained from this proceeding far surpasses its inconveniences. "The absence of catheterism," Dr. Deroubaix further asserts, "leaving the patient exposed to nearly all the troublesome phenomena that may accompany the use of the instrument, without offering advantages capable of forming a sufficient compensation, seems to be a practice the adoption of which cannot be authorised by any possible motive. We should look upon it as one of the means suggested by an unenlightened philanthropy, sacrificing the future interest of the patient to her present liberty and ease of locomotion."

The last portion of the work consists of well-written reports of twenty-three cases of uro-genital fissure in which operations were performed by Dr. Deroubaix. The total number of operations performed in these twenty-three cases was forty-six; twelve cases requiring a single operation each; one case eight operations. The excellent results obtained by the author consist in fifteen cures, five incomplete cases, and three failures.

New St. Thomas's Hospital.—The works in connexion with this magnificent pile of buildings, on the Albert Embankment, are now so far completed that all the scaffolding has been removed, and the public can gain an uninterrupted view of it both from the river and Lambeth. The masonry work has been completed, as far as the exterior is concerned, and men are now employed in fitting in the windows and preparing the various wards for accommodation. The outbuildings are also in a forward state. No date has yet been mentioned for opening the Hospital, but it is stated it cannot be before next year.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

October 1.

The charitable public will be glad to know that the musical festival for the benefit of the General Hospital was a grand success: although the expenses attendant on its organisation were enormous, yet a clear sum of £6000 was realised for the exchequer of the Hospital. I hear that the authorities of this institution have an idea of making certain additions to its Medical staff, and to open a midwifery department: these will, of course, render the Hospital staff more efficient. Being situated in a densely-populated part of the town, the resources of the Hospital must be, at times, severely taxed.

The Queen's Hospital, after having abolished its midwifery department, is about to reopen it again under a different and, it is to be hoped, an improved *régime*. A resident Surgeon-Accoucheur is to be appointed with a fixed stipend, and one honorary Surgeon, who will be allowed two beds, and whose position will thereby be very different to that of his predecessors, who, instead of being honorary Surgeons, were really the ordinary Surgeons-Accoucheur. But, as the old officers have not yet resigned their appointments, which were duly ratified by the new charter, it may reasonably be asked how are they to be disposed of, and which of the twain is to take office? This is a question still *sub judice*, and I understand that it is a legal question too.

The subject of Poor-law Medical relief is to be again discussed by the guardians in December next. The Poor-law Board has permitted it to be tided over until then, when it is incumbent on the guardians to give some decided information to Mr. Goschen. The main question is whether the guardians will increase the number of their staff, or let it remain as it is and establish a dispensary. The latter arrangement is the one which the Board of Whitehall wishes carried out. Were it not for the supposed expenses of it, I fancy that the majority of the guardians would at once vote for a dispensary. No grumbling is manifested on the part of the present Medical officers. The only fear they have is lest, by the increase of their number, a large slice might be taken off their income; therefore, the less they agitate in the matter the better will it be for them. Much interest has been taken of late in the subject of the boarding out of pauper orphan children, and, after mature consideration, the guardians of the poor have adopted the enlightened policy of farming out their pauper children.

Our town has not been behind other towns in furnishing supplies of all kinds for the Franco-German sick and wounded. Large sums of money have been collected, and subscriptions are still coming in, which will be very acceptable to the victims of this cruel war. In getting Medical comforts and Surgical appliances, one of our *confrères* has made himself laudably conspicuous—I speak of Mr. Gamgee, who is always foremost in every public movement which has for its object either the public or private weal.

On the 29th ult., the homœopathic doctors had quite a field day here, or what they were pleased to call a "Congress of Homœopathic Practitioners." There was a large attendance of the members of the Profession who believe and practise in their peculiar dogmas. The president was a Dr. Drysdale, who opened the business of the meeting by an address, choosing for his subject "Modern Medicine and Homœopathy." In the course of his remarks, he spoke of the opposition which the fraternity had to contend against from the bulk of the Profession; and he referred in *feeling* terms to the conduct of Dr. Horner, late Physician to the Hull Infirmary, who seceded from the paths of legitimate Medicine, and was converted to *rank* homœopathy—speaking of such behaviour as *striking* and *dramatic*. It would appear from his subsequent remarks that these scientific gentlemen are not altogether satisfied with the position they occupy, either in the Profession or society, which is evinced by the repugnance they have to the name by which they are known. Dr. Drysdale says that all acknowledge that the name (why not the existence?) of homœopathist must ultimately cease, and many thought it ought to be discarded now. On this, he quoted the opinion of the distinguished Tessier that, just as they devoted themselves to clinical observation without calling themselves Physicians, and just as they studied general Medicine without calling themselves theoretic Doctors, so they neither desired nor admitted the appellation "homœopathic," applied either to themselves or labours. They were Physicians, and their work was to perfect the art of Medicine. Dr. Drysdale thought they were bound to retain, or rather to submit to, the name from motives of honour, lest they should seem ever to countenance the mean subservience of certain persons who secretly adopted the fruits of the labours of the homœopathic predecessors, and denied the source of fear of the threats of the trade unionists. The voice of the meeting being pretty unanimous, and the sentiments much the same, it was considered to be a great success.

The health of Birmingham is good. Diarrhœa, scarlatina, and relapsing fever, which were prevalent a few weeks ago, are on the decrease, and there is no disease of an epidemic character raging.

LIVERPOOL.

October 3.

On Friday, September 30, a second conference between the Workhouse Committee and the district Medical officers was held, for the purpose of hearing opinions as to whether the Health Committee of the Town Council could co-operate more vigorously with the parish authorities to check the present epidemic of relapsing fever. It was stated that on the morning of that day there were about 1200 fever patients in Hospital, and that further accommodation was immediately required. Eventually it was agreed to discuss the matter with the Health Committee, with a view of seeing whether something more could not be done to remove filth from the streets, and to induce the poor to maintain greater cleanliness within doors.

Many suggestions were made, but the gist of the matter seemed to be very forcibly given in some remarks by Dr. Gee. While expressing a fear that no steps would now prevent the epidemic from running its course, he thought that much might be done to prevent future invasions, by placing much smaller and more manageable districts under the supervision of the sanitary inspectors than at present, and by making those inspectors strictly responsible for the cleanliness of such districts. He suggested the necessity of the isolation of all fever patients, by their early removal to Hospital, and the thorough cleansing of the infected houses, their tenants being removed, if need be, to sheds provided for the purpose during the process. The compulsory closure of houses for a time, he argued, would make landlords solicitous about the cleanliness of their tenants, and would thus operate advantageously.

To carry out suggestions of this nature would require larger powers than either the parish authorities or the Health Committee at present possess; but it can scarcely be doubted that the complete application of such a system as that suggested would be made at a far less pecuniary cost than will be entailed on the town by the present epidemic.

A second shed, similar to the one already existing at Kirkdale, is nearly finished, at the same place, and a still larger one is in process of completion in the parish of Toxteth, where the fever is extending very rapidly. This last shed is intended for the accommodation of 100 patients.

In some of the districts there is a very marked decrease in the numbers attacked. Dr. Paterson, from whose district nearly twice as many have been sent as from any other in the town, informs me that to-day (Monday) he has sent only four to Hospital, instead of from fifteen to eighteen, the usual number for Monday. In Dr. Robertson's district there is also a marked decline, but concomitantly with this decline in the northern part of the town is an extension southwards, so that as yet the total numbers go on increasing.

GENERAL CORRESPONDENCE.

"UNSER WISSEN IST STÜCKWERK."

Letter from Dr. W. D. Moore.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your impression of the 1st inst., Dr. F. A. Hartsen quotes the words which I have placed at the head of this letter from Goethe. I am not aware in which of that great writer's works these words occur, but there can be little doubt that when Goethe used them he was borrowing from a much older book—viz., Luther's Translation of the Bible. The verse I Cor. xiii. 9, which we read "For we know in part, and we prophesy in part," is thus beautifully and forcibly given as follows:—"Denn *unser Wissen ist Stückwerk*, und

unser Wissagen ist Stüekwerk;" that is, literally: "For our knowledge is piecework, and our prophesying is piecework."

I am, &c. W. D. Moore, M.D.

Dublin, October 3, 1870.

EFFECTS OF AN OVERDOSE OF HYDRATE OF CHLORAL.

Letter from Dr. George Dabbs.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am not aware that any statement has as yet been put forward by any of the Practitioners who largely employ the hydrate of chloral, of the symptoms which would be likely to ensue from an over-dose of that drug. It has fallen to my lot within the last twenty-four hours to encounter very serious symptoms in the case of a patient under my care, for whom I had prescribed the hydrate for the most distressing asthmatic breathing—complicated, by the way, with pregnancy, in which state she has advanced more than seven months. I had given her, myself, thirty grains at 8 p.m., on September 28, and had left directions that about 2 a.m., should the breathing become seriously affected, twenty grains should again be administered. My patient woke, however, at midnight, and complaining of feeling restless and unable to sleep, implored a relative, who was officiating for the time being as nurse, to give her two tablespoonfuls of her mixture (equivalent to twenty grains). At about 12.30 a.m. she again insisted upon taking another dose, from the combined effects of which repeated doses she never thoroughly recovered until 4 p.m. on September 30 (just about 16 hours). About 2 a.m. she sat suddenly bolt upright in bed, and complained of agonising cramps in the legs, a feeling of suffocation, of swimming in the head, and of absolute inability to co-ordinate the movements of the lower extremities. She seemed in a peculiar state of consciousness, knew that she was very ill, and herself insisted upon my being sent for. On my arrival, at about 4·30 a.m., I found the head bent upon the chest, the face intensely flushed, the eyelids closed, and with some little difficulty opened, and the whole conjunctiva injected. The odour of chloral in the breath was something sickening. There was a slight tendency to vomit, and the relative with her told me she thought about a tea-spoonful of the last dose came back. The pulse was quick and bounding; its frequency about 120, but gradually decreasing, till at 8 a.m. it was only 96. The patient was with difficulty roused either to speak or take food, and on perfectly rallying at 4 p.m. to-day, she tells me she does not remember a single circumstance after swallowing the second dose at midnight, but that the sensation had been one of unlimited rest, unbroken by anything, but quite different from sleep. The only symptom to which she could herself refer, and this she did independent of any leading question on my part, was to the cramps, which even now remain to a very slight extent. She says herself that the agonising pain in her legs was the only occasional break in her otherwise complete mental monotony. As far as the treatment of the case goes, I aimed at first at producing vomiting, which was easily enough accomplished with some ipecacuanha wine which there was in the house, but finding, after carefully watching her, that no good resulted from this, and that the symptoms were slowly going off, I contented myself with simply watching the case from hour to hour. I may mention that no other drug entered into the composition of the chloral mixture, and that no other medicine had been given for three hours previous to the first dose at 8 p.m.

I am, &c. George H. R. Dabbs, M.D.

Castle View, Newport, I.W., September 30.

NEW INVENTIONS.

AN INSTRUMENT FOR PIECEMEAL EXTRACTION OF THE FŒTUS.

By Tempest Anderson, M.B., B.Sc. Lond.

It is generally agreed by obstetric writers that, when a pelvis is so much distorted that its conjugate diameter does not exceed 2½ inches, it is impossible to deliver an average fœtal head by the operation of craniotomy, as usually performed—viz., by perforation of the skull and simple discharge of its contents—even when traction is applied by the best forms of craniotomy forceps. In these cases the head must be further reduced in size before it can pass, or, if this be impossible, the operation of Cæsarian section becomes necessary. The head may be reduced in size either by repeated crushings with the cephalotribe—an operation which for many reasons has found little favour in this country—or enough of the cranial bones may be removed piecemeal to allow the remainder to pass. This proceeding is often attended with great difficulty; for instance, Dr. Meigs states that in one case he was occupied several hours in getting away as much osseous matter as would go to make up a parietal bone. It is to facilitate this process that the instrument shown in the figure has been contrived. It consists of a long and strong pair of forceps, the handles being long, so as to get a good purchase, and crossed in the greater part of their extent when closed, so as to

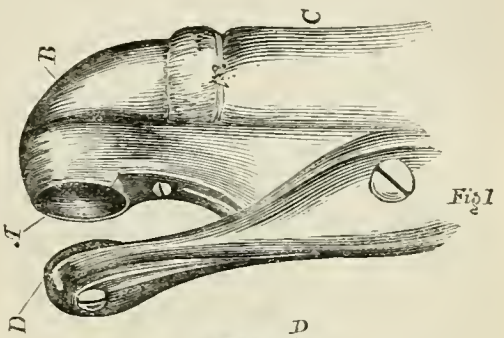

Fig 1

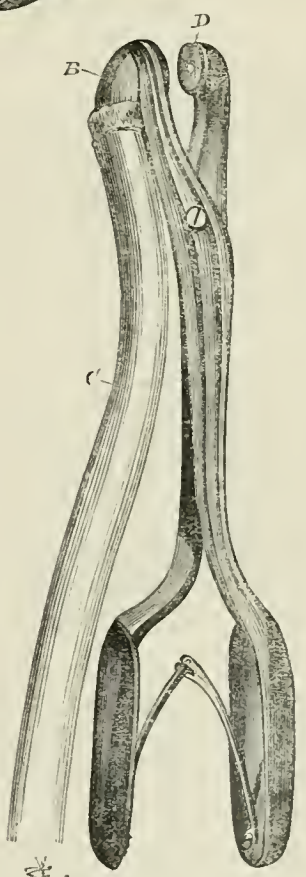

Fig 2.

Fig. 1.—Blades of instrument, full size.

Fig. 2.—Whole instrument, one-third size. A, orifice in blade with sharp cutting edges; B, metallic tube to which this leads; C, flexible tube of vulcanised indiarubber; D, sharp-edged projection on smaller blade, working into A.

occupy little room when open. The blades are not alike. One of them is pierced by a round hole rather more than half an inch in diameter, with sharp cutting edges, A, and from it a smooth canal, B, leads, to terminate in a flexible tube of vulcanised indiarubber, C, which passes down by the side of the handles. The other blade is not perforated, but is furnished with a slight projection, D, which fits accurately into the opening in the

other. This part of the instrument is shown in the figure of its natural size, so that a minute description is unnecessary. The mode of application is as follows:—Craniotomy is first to be performed, and the brain thoroughly evacuated. If now there be considerable contraction of the conjugate diameter at the brim, the two sides of the head, instead of being well rounded, will be somewhat flattened against the sacrum and pubes, their free cut edges presenting. An uterine sound or similar blunt instrument is to be passed between the scalp and the cranial bones, and these two structures separated as much as possible. The small blade of the instrument is then to be passed between the scalp and the bone, and the large one, with its flexible tube attached, into the cavity of the skull. The relative position of parts is ascertained and the instrument guarded by the finger, the hand being, if necessary, introduced into the vagina. Pieces of bone can now be cut off, and are pushed by those which follow them down the tube, and so escape externally. The tube does not seem so liable to be blocked up as might have been expected. By this means the cranial vault is to be removed, when only the face and base of the skull remain of the head. The face is now to be brought down by a crochet fixed under the chin, when the remains of the head will be in the most favourable position for passing a narrow aperture. The instrument was made by Mayer and Meltzer, Great Portland-street.

OBITUARY.

WILLIAM ALLEN MILLER, M.D., LL.D., F.R.S.,

Was born December 17, 1817, at Ipswich, and was educated at Merchant Tailor's School and at a Quaker's seminary in Yorkshire. At the latter place he first imbibed a taste for scientific pursuits during an attendance upon a course of lectures on chemistry. He entered as a Medical student at the General Hospital, Birmingham, and afterwards at King's College, London, at which institution he assisted the late Mr. Daniell, the professor of chemistry, who took a warm interest in his welfare. He became a pupil of Liebig, and, during his sojourn at Giessen, obtained the Warneford Theological Medal. He was elected demonstrator of chemistry to King's College in 1840, and professor of chemistry in 1845, on the death of Mr. Daniell. He was afterwards, in 1851, one of the Government commissioners to report on the water-supply of the metropolis. He graduated at the University of London in 1840, and, at the time of his death, was vice-president of the Chemical Society, treasurer and vice-president of the Royal Society, honorary Fellow of King's College, London, and of the Pharmaceutical Society, and assayer to the Mint and Bank of England. He was the author of various papers in the *Philosophical Transactions* and the *British Association Reports*. His "Elements of Chemistry," of which three editions have been published, is well known and highly appreciated. Dr. Miller was of a highly excitable, nervous temperament, and no doubt overtasked his mental energies. These completely gave way during the late meeting of the British Association, and brain fever set in and proved fatal.

MR. GEORGE HANBURY.

On Monday, the 3rd inst., the remains of Mr. George Hanbury, late House-Surgeon to the Eastern Dispensary, Liverpool, were deposited in Anfield Cemetery, in the presence of many Professional and private friends. Mr. Hanbury had occupied the position of House-Surgeon, which he held at the time of his death, for nearly six years, and by his extreme kindness to the poor, and courtesy to all with whom he was brought into relation, had won for himself a very sincere and wide esteem. Ever ready to oblige, he was taxing his energies to fulfil the duties of a sick colleague as well as his own, when he caught scarlet fever, and, after an illness of only two days, died. He was a Licentiate of the Royal College of Surgeons of Ireland in 1862, and had spent the first two years of his Professional life as one of the visiting Surgeons to the North Dispensary, Liverpool. At the expiration of that time the present Eastern Dispensary was founded, and he was its first House-Surgeon.

Case of Trance in New Zealand.—Dr. A. Weber, of Milton, Otago, New Zealand, has published, in the *Bruce Herald* for July 20, the particulars of a case of trance, which the crowded state of our columns prevents our noticing till next week.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, September 29, 1870:—

Chittenden, Chas. Peirce Downey, Lee-park, S.E.
Collier, William Henry, Sheffield.
Greaves, William, Great Easton, Leicestershire.
Newman, Ashwin Conway, Cheltenham.

The following gentlemen also on the same day passed their First Professional Examination:—

Atkinson, Walter Mark, Charing-cross Hospital.
Hartridge, Gustavus, King's College.
Wall, Abiathar, St. Bartholomew's Hospital.
Winterbottom, Augustus, St. George's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Pearce, W. H., M.R.C.S. Eng.—Demonstrator of Anatomy in the Sheffield School of Medicine.

Smyth, William, L.R.C.P. and L.R.C.S.E., late Deputy-Surgeon Kent County Prison.—Resident Medical Officer Kent County Ophthalmic Hospital, *vice* A. H. B. Hallowes, M.R.C.S., L.S.A., resigned.

Thorpe, G. E. K., M.R.C.S.E.—Demonstrator of Anatomy in the Sheffield School of Medicine.

MILITARY APPOINTMENTS.

Royal Aatillery.—Staff Assistant-Surgeon Thomas John Peatfield, to be Assistant-Surgeon, *vice* George Scott Davie, M.D., who exchanges; October 1.

Medical Department.—Assistant-Surgeon George Scott Davie, M.D., from the Royal Artillery, to be Staff Assistant-Surgeon, *vice* Thomas John Peatfield, who exchanges; October 1.

BIRTHS.

Chaumont.—On September 29, at Oakland, Woolston, Hants, the wife of F. De Chaumont, M.D., Staff Surgeon, of a daughter.

Gaaves.—On October 2, at Dover, the wife of William Graves, Army Medical Staff, of a daughter.

MARRIAGES.

Beatson—Hoyes.—On September 28, at South Stoneham Church, Hants, George Stewart Beatson, M.D., C.B., Inspector-General of Hospitals, and Honorary Physician to the Queen, to Elizabeth Adams, eldest daughter of Alexander Hoyes, Esq., of Bitterne-grove, near Southampton.

Copeland—Bate.—On September 27, at St. Mark's Church, Marylebone, John Copeland, Surgeon, of Lindfield, Sussex, to Jane, relict of Henry Francis Bate, M.D.

Jones—Kinnaird.—On September 27, at St. Paul's Church, Avenue-road, St. John's-wood, Alfred Orlando Jones, M.D., to Frederica Georgina Kinnaird.

Land—Potts.—On September 27, at Michael's, East Teignmouth, William Henry Land, M.R.C.S., Lond., Alma House, Exmouth, to Elizabeth Beard, widow of the late William Potts, Esq., of Bishopwearmouth, Durham.

Nuthall—Caichton.—On October 3, at Kinsale Church, Frederick Nuthall, 63rd Regiment I. of M., eldest son of Major-General W. F. Nuthall, Bengal Presidency, to Nina, grandniece of the late Major-General Lindsey, and third daughter of George Grey Crichton, M.D., Green-hill, Kinsale.

DEATHS.

Clendon, John Chitty, M.R.C.S., at 23, Cambridge-gardens, Kensington-park, on October 1, aged 60.

Millea, William Allen, M.D., F.R.S., Professor of Chemistry at King's College, London, at Liverpool, of apoplexy, on September 30, in the 53rd year of his age.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Brighton and Hove Dispensary.—Resident House-Surgeon; must have both Medical and Surgical qualifications. To the "Chairman of the Committee of Management," on or before October 31. Election on Dec. 6.

Dorset County Hospital.—House-Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to the Chairman on or before October 19.

Dursley Union.—Medical Officer for the Third District of this Union. Candidates must be duly qualified and registered. Applications and testimonials to Mr. G. Wenden, Clerk to the Guardians, Dursley, on or before October 26. Election the following day, at 12 o'clock.

General Hospital, Birmingham.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials, under cover, to the House-Governor and Secretary, on or before October 27. Election on November 4.

Morpeth Dispensary.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

NORTH RIDING OF YORKSHIRE.—Gaol Surgeon for the House of Correction at North Allerton. Candidates must be duly qualified and registered. Applications and testimonials to the Rev. John Field, West Rounton Rectory, near North Allerton, on or before October 8. Election on the 18th.

QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary on or before October 20th.

TOWER HAMLETS DISPENSARY.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to T. Stone, Esq., Hon. Sec., 5, Finsbury-circus, on or before October 10. Election on the 19th.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer; must be M.R.C.S. and L.S.A. Applications and testimonials to Mr. Smith, Portland-place, Charles-street, Worcester, on or before October 11.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Erpingham Union.—The North Walsham District is vacant; area, 7169; population, 3171; salary, £52 per annum.

Wisbech Union.—Dr. Sturkey has resigned the Second B District; area, 4798; population, 887; salary £10 per annum.

APPOINTMENTS.

Basford Union.—Thomas S. Woolley, M.R.C.S. Eng., L.S.A., to the Codmor-park District.

Newport (Mon.) Union.—Octavius H. Jennings, M.R.C.S. Eng., L.S.A., to the Marshfield District.

Wakefield Union.—John Heaps, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., L.M., to the Thorpe and Lofthouse, with Carlton, Districts.

Wolverhampton Union.—William B. Ford, L.R.C.S. Edin., L.R.C.P. Edin., L.S.A. Lond., L.A.H. Dub., to the Third Wolverhampton District.

UNIVERSITY OF CAMBRIDGE.—The Professor of Anatomy gives notice that the lectures on practical anatomy (the human skeleton) will commence in the Old Anatomical Schools on Wednesday, October 12, at 1 p.m., and will be continued daily. The Lectures on anatomy and physiology will commence in the New Museums on Thursday, October 20, at 1 p.m., and be continued on Tuesdays, Thursdays, and Saturdays, at the same hour. Instruction in practical histology will be given in the Old Anatomical Schools on Saturdays, at 11.30, commmencing on October 20. Microscopical demonstrations will be given in the Old Anatomical Museum on Mondays, at 6 p.m., commencing on October 30.

EDINBURGH UNIVERSITY.—A meeting of Edinburgh University Court was held last week, the Lord Justice Clerk, Rector of the University, in the chair. Principal Sir Alexander Grant said that at the last meeting of the Court he gave notice that on the present occasion he would submit a motion in reference to the constitution of the Court of Curators, who are patrons of several Chairs in the University. It seemed to him, on reconsidering the matter, that it was doubtful whether it would be proper or expedient for the University Court to take the initiative in a delicate matter of that description, and as the subject was to be under discussion at the ensuing meeting of the General Council of the University, who might possibly make a reference to the Court, he now withdrew the motion. A letter was read from Professor Allman, requesting permission, on the ground of ill-health, to retire from the post of Regius Professor of Natural History and Keeper of the Museum in the University of Edinburgh, with the allowance provided by the Act for retiring Professors. The Court agreed to report to the Queen in Council in favour of the application.

THE ITALIAN GOVERNMENT AND SANITARY IMPROVEMENTS.—The Italian Government has now before it one of the greatest sanitary problems of modern times, and, it may be, of the most beneficent and blessed tasks which it was ever the lot of a civilised government to fulfil. Happily it cannot be said to be unprepared for the task. Since the meeting of the International Medical Congress, held in Florence, twelve months ago, a special commission has been constantly at work—one formed of the first Medical, agricultural, and engineering authorities in Italy—for the express purpose of determining by what means malaria may be reduced. It has been in communication with the most eminent authorities both in Europe and America, distinguished by a special study of this very matter. It has always been maintained that the deficiency of population was one of the great causes of Roman malaria; that the fever is found to exist within the entire circuit of the Roman walls, with greater or less intensity, just in proportion to the more or less densely peopled character of the different localities, and that with the extension of building over the whole area of the city, the malaria in Rome itself might be expected greatly to diminish, perhaps quite to disappear. In addition to a Roman Metropolitan Improvements Board, the subsoil ploughing and draining of the Campagna might effect wonders.

MR. HAMMOND has resigned the office of Surgeon to Addenbrooke's Hospital, Cambridge.

THE NAVAL MEDICAL SERVICE.—At the last competitive examination for the Naval Medical Service, in August of this year, there were 25 vacancies, for which 15 candidates competed, only 10 of whom were found eligible. Another examination is announced to be held in November, and again there are at least 25 vacancies.

PRESENTATION TO A SURGEON.—A very gratifying proceeding took place at Bethnal-green Workhouse on Friday last. Dr. Smart, the senior Medical officer of the workhouse, having intimated his intention to relinquish that appointment, the nurses and other officers of the establishment determined that he should not leave without bearing with him some tangible proof of their appreciation of his past services to the institution. A subscription, commencing with the officers, was responded to by about 300 of the inmates, who contributed their pence, making up a sum sufficient to procure a handsome present. The article selected is a silver double inkstand, with a suitable statuette, and the following inscription:—"Bethnal-green Workhouse Infirmary, September 29, 1870. To Dr. James Smart, in acknowledgment of his valuable services as senior Medical officer during a period of twenty-five years." The presentation, which was made by the Rev. Thos. Peckston, was accompanied by an address, expressive of the good feeling and admiration of the subscribers. Dr. Smart made an appropriate reply.

THE Introductory Address for the session 1870-71 was given, at the Liverpool School of Medicine, on Monday, the 3rd inst., by Dr. J. C. Brown, D.Sc. Lond., Lecturer on Chemistry and Toxicology to the School; after which the prizes to the successful students were presented by Edward Gibbon, Esq., Chairman of the Royal Infirmary Committee. The lecture theatre was crowded. The following is the list of prizemen, etc.:—*Scholarship and Gold Medal:* Mr. R. A. H. Wood. *Exhibitioners:* Messrs. E. A. Fox, R. Leigh, H. C. Pope, and R. A. H. Wood. *Northern Hospital Exhibition:* Mr. A. B. Rees. *Medicine:* Mr. N. Smedley, medal; Mr. T. W. Sleddall, certificate. *Surgery:* Mr. R. A. H. Wood, medal; Messrs. Rees and Pope, certificates. *Physiology (seniors):* Mr. J. B. Lyth, medal; Messrs. Rees, Phillips, Molyneux, and Steele, certificates. *Anatomy (seniors):* Mr. Lewtas, medal; Messrs. Phillips, Hendry, and Molyneux, certificates. *Anatomy and Physiology (juniors):* Mr. J. B. Postance, medal; Messrs. Joseph, Riding, Hutchinson, and Jones, certificates. *Chemistry:* Mr. Hutchinson, medal; Mr. D. L. Parry, certificate. *Prosector's Prize:* Mr. Lewtas. *Midwifery:* Mr. Wood, medal. *Diseases of Children:* Mr. Lewtas, medal; Mr. Steele, certificate. *Materia Medica:* Mr. D. L. Parry, medal; Messrs. Marmon and Whiteside, certificates. *Medical Jurisprudence:* Mr. Wood, prize; Mr. Steele, certificate. *Botany:* Mr. Riding, prize; Mr. Joseph, certificate. *Practical Chemistry:* Mr. D. L. Parry, prize; Messrs. Riding and Hutchinson, certificates. *Comparative Anatomy:* Mr. Lewtas, prize. In the evening the students and their friends dined together at the Adelphi Hotel; Dr. A. T. H. Waters presided.

IT has been said that rice-gruel, a common article of diet in China, produces a copious secretion of milk. Every European mother in China has doubtless experienced the truth of this remark, but it is very questionable whether it produces the same effect among the Chinese. A naturally stronger constitution, a more generous and stimulating diet, may have something to do with this increased secretion among foreign ladies. The Chinawoman's milk is deficient, so far as I have observed it, both in quantity and quality, when she is fed entirely on native food; how otherwise can we explain these withered and pendent mammæ, and those ill and scantily-nourished children? They are certainly not "more rapidly thrust forward upon rice." They are, as a rule, insufficiently nourished, and consequently stunted and small for their age. It is often remarked how much more fully-developed, physically and mentally, European children are, compared with the Chinese. They talk sooner, and speak better Chinese than their Chinese equals—I mean those brought up under Chinese nurses; and at 3 years of age are equal, if not superior, in strength and appearance, to Chinese children 5 years old. As a substitute for breast-milk, the Chinese make a pap with rice-flour and sugar. This is steamed or dissolved in a little hot water, which reduces it to the consistence of paste, and it is then smeared with the finger on the child's gums. The preparation

is here called *kau kan*. The flour of the *China root*, and other edible *fungi*, are sometimes used alone, or in combination with rice-flour, for this purpose.—*Eighth Annual Report of the Peking Hospital, by John Dudgeon, M.D., C.M.*

Composition and Quality of the Metropolitan Waters in September, 1870.—The following are the returns of the Association of Medical Officers of Health :—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	15·73	0·057	0·083	0·001	12·6	3·0
West Middlesex	15·60	0·033	0·091	0·000	12·1	2·9
Southwark & Vauxhall	15·33	0·060	0·065	0·001	12·6	3·4
Chelsea	15·70	0·069	0·075	0·002	12·6	3·0
Lambeth	16·17	0·064	0·075	0·001	12·8	3·3
Other Companies.						
Kent	27·00	0·007	0·125	0·000	18·9	5·3
New River	15·87	0·017	0·091	0·000	12·7	2·9
East London	15·37	0·017	0·110	0·001	12·0	2·9

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 111,718,824 gallons; and the number of houses supplied was 481,149. This is at the rate of 34·4 gals. per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 29·3 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

H. Letheby, M.B.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Invalid, A. B., and others.—We have positive information, from private letters from the Riviera, that the English are *très-mal vus;* and, therefore, though there may be no war there, the position of English visitors may not be pleasant. But there may be war, through an attempt to reannex Nice to Italy. There are the Bermudas, Madeira, the Canary Islands, Gibraltar, Lisbon, Cadiz, Malaga, Malta, Palermo, and Cairo.

Sigma.—It is not contained in the old Pharmacopœia; the formula will be found in the "British."

Candidate.—By ballot. A recommendation signed by three members is required.

T. P. L.—The announcement was made at the time.

One Present at the Trial.—The omission was not accidental. Reference will be made to the circumstance in a future article.

"*Old, but not Promoted.*"—We published our correspondent's letter last week, but had not space to notice it. Our correspondent implies from our remark that candidates entering the Medical service of the army in February next would do so under comparatively favourable circumstances as regards promotion; that we consider the rate of promotion in the Army Medical Department to be at present in a satisfactory state, or likely soon to become so. That such is not our opinion must be well known to all who have read the remarks we have from time to time made upon this subject; and even in the paragraph to which our correspondent objected, we stated that, unless some change of system be soon introduced, the prospects of promotion of Assistant-Surgeons at present in the service must continue very remote. The fact, however, still remains that those who may enter in February next will have an interval of more than two years between them and those immediately above them, and their promotion—late though it may be—will in varying degrees be relatively earlier than that of their predecessors on the list.

Indistinct Lecturers.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am an old man of the days of Graham, and Hope, and Knox, and Dunbar, and Alison, and Mackintosh, and Hamilton, and Christison (then a rising young man), when Edinburgh was Edinburgh. Now I have three sons studying our Profession in three different schools, and they all concur that the lecturers of the present day are indistinct and inaudible, with little method and no anxiety to convey instruction. With four years only given to learn a science, which no man ever yet acquired in forty, why this waste of time? Why this appointment of Professors without the power of utterance, and of giving clear and decided information?

I am, &c. Laudator Temporis Acti.

Medical Club, 9, Spring-gardens, S.W., October 5.

Work for Qualified Practitioners.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you oblige me by answering the following questions in the next issue of the *Medical Times and Gazette?*—

1. What prizes are open to qualified Practitioners for competition, and what are the relations attached?

2. How can a Practitioner living in the provinces obtain access to a good reference library in London? Lewis's appears to be more adapted for the circulation of modern standard text-books than of old works of reference.

3. What is the readiest way of detecting dilatation of the bronchial tubes by post-mortem examination? My idea has been to inject them with fusible alloy, and so obtain a cast.

I am, &c. Dum Spiro Spero.

1. The Jacksonian Prize, at the Royal College of Surgeons; the Astley Cooper Prize, at Guy's Hospital; the Triennial Prize, at the College of Surgeons; the Fothergillian Gold Medal, at the Medical Society of London; there is also a Hastings Medal, given by the British Medical Association; lastly, the Godard, Monthyon, Riberi, and other foreign prizes in abundance, particulars of which are published in our columns from time to time. 2. The library of the Medical Society of London and that of the Royal Medico-Chirurgical Society. 3. Inflate, dry, and dissect out.

Conversation with a Medical Student During the Vacation. Suggestion of Task-work Instruction.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Having had some conversation with a Medical student who had passed through his second winter session at one of the small London Hospitals, I was surprised to find that the so-called "walking the Hospitals" still exists. I put the following questions to him :—"Have you no weekly class examinations at your Hospital?" "No," was the reply. "Are there no written questions given to students to prepare them for the examinations?" "No." He stated, however, that some of the students were examined at the end of the session. I need hardly state that so long as such a state of things is permitted to exist in the Hospital Schools of Medicine, the students must seek instruction from "grinders" as a matter of grave necessity. There are many students who require a system of task-work instruction from day to day, because they have not the inherent power of self-instruction, or, in other words, no idea of dissecting hooks, so important for possessing a right knowledge of clinical instruction. I would therefore suggest that weekly class examinations should be established in every Hospital, and every student should be furnished with written questions weekly, upon every subject during each session. The first year's students should be permitted to answer the questions by reference to books at their own lodgings after Hospital hours; but the second year's students should be compelled to write answers to questions without reference to books, in a room in the Hospital.

By adopting such a system of task-work instruction, time would be economised, to the advantage of parents as well as the pupils themselves.

I am, &c. A Physician.

P. S.—For many years past the students at St. Bartholomew's Hospital had the advantage of frequent class examinations, and the third year students who were working for the College of Surgeons were examined in a small class three times a week. In those days *viva voce* examinations only were required, but nothing impresses knowledge so much as writing answers to questions.

The Contagious Diseases Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—You are probably well aware that laws for the regulation of prostitution and for the alleged purpose of restraining venereal disease have been in operation in France for nearly a century. In 1864 a law, ostensibly for the same purposes, was introduced into England, the French law being taken for a model. The Act, as passed in 1864, was considerably altered in 1866 and 1869, each time being made more arbitrary and despotic. The Continental law essentially consists in the registration of women and in the certification of their state of health, so far as they are supposed to be suffering from contagious disease, or the contrary. The registration of women for this purpose and their enrolment in the great army of prostitutes is entirely a police affair, and it is not dependent so much upon the unchastity of the woman as upon the whim, caprice, or impression of a spy. Notwithstanding Dr. Rumsey's assertion to the contrary, I conclusively proved in my last letter that under the Contagious Diseases Acts we have habitual and authorised registration and certification of women for precisely the same objects, and that consequently the French and English systems are substantially the same. Dr. Rumsey's attempt to show that a police register is not a public document, and that a register of prostitutes kept by the police in England is entirely different from an exactly similar register of prostitutes kept by the police in France, and for the same purpose, is exceedingly amusing. Such a lame defence, however, is so far satisfactory as it clearly shows that Dr. Rumsey was ignorant of the subject on which he volunteered to lecture his Professional brethren at Newcastle. The truth is, the French and English systems are identical, excepting so far as the English is much the worse and more brutal of the two, since it authorises the registration as prostitutes of mere children, in spite of the reclamation of parents, wives in spite of their husbands, and kept women in spite of the persons with whom they live, atrocities which the French system does not permit. I cannot understand the difference Dr. Rumsey endeavours to draw between the French and English systems of registration. In his remarks at Newcastle he said nothing about public or private registration—his words were "authorised registration." I have shown that the women are habitually registered, and by the authority of the Secretary of War. What higher authority does Dr. Rumsey require? The act of registration is the same in England as on the Continent. In both countries it is carried out by the police, in both the register is equally public, and in both it is a positive seal of the woman's degradation. It breaks down the bridge behind the sinner, forbids all attempts at concealment of her shame, and is an infamous disgrace she can never overget. The effect is clearly acknowledged to be such by some of the highest authorities, including even the most powerful supporters of the Acts, both at home and abroad. It clearly devotes the woman to a life of perpetual prostitution as a condition of continuing to exist. Surely, Dr. Rumsey cannot be aware that, under this Act, "modest" women (see Mr. Parson's evidence Blue-book) unquestionably submit to this registration and periodical instrumental violation rather than meet a public accusation of prostitution, and that dress-makers, milliners, labourers' wives, and the wives of small trades-

men are classed as prostitutes for the purpose of these Acts. I ask Dr. Rumsey whether he is cognisant of these facts—they are in the Parliamentary Blue-books; and I further ask whether, being acquainted with them, he considers these Acts a most beneficent piece of legislation and a crowning glory of our civilisation? I cannot believe so badly of Dr. Rumsey as to suppose that he has read the Acts themselves or the evidence upon which they profess to be founded. The most charitable construction is that of entire ignorance. My belief is that he has derived his inspiration from a document issued by the society for extending the Acts, which, I regret to say, contains many false facts, a good deal of fallacious reasoning, and a considerable amount of impudent and unwarrantable assumption. I am quite certain that, if Dr. Rumsey would take the trouble to acquaint himself with both sides of this unspeakably important question, his good sense, and I trust good feeling, would speedily induce him to become as earnest and thorough an opponent of this iniquitous legislation as I am myself.

I am, &c. THOMAS WORTH.

P.S. Dr. Rumsey states that the Act of 1869 repeals the provision of the Act of 1866, which handed over the certificates to the women, and hence he wishes it to be understood that at the present time such certificates are either not written or not handed to the women. I meet the Doctor's statement with such a direct denial as only facts can give. The following certificate is quoted from the Act of 1869—the last upon the subject:—

"In pursuance of the Contagious Diseases Acts 1866-1869 I hereby discharge A. B., of , from this Hospital, and certify that she is now free from contagious disease.

"Dated this day of , 18 , at the Hospital.

"Signed by G. H., Chief Medical Officer."

Perhaps Dr. Rumsey will say that although the certificates are written they are not handed to the women, but that, in pursuance of Sect. 8 Act 1869, they are lodged in the hands of the police; in reply to which I state that so late as the 11th, 13th, and 14th of April, 1870, the women were supplied with papers after each examination; and the Surgeon is bound by the Act to supply them papers which state the date of the last examination and the time of the next, and which are clean bills of health for the intermediate period—exactly the same as the document supplied to the registered women in France.

Bloodletting in a Case of Epilepsy complicated with Acute Cerebral Congestion.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In a recent number of your excellent journal attention was drawn to the great efficacy of general bloodletting in suitable circumstances, and your pages have recorded several appropriate examples, to which I beg to add another, should you consider its publication of use as additional evidence of what you properly term the "value of an old remedy."

On the 28th ult. I was summoned to see a young maid servant, said to be in hysterics consequent on falling downstairs with her master's child in her arms—the idea of her master and mistress being that fear of injury to the child had brought on the hysterics. I found her held down in bed by a strong man in order to restrain her powerful convulsive paroxysms, which recurred every few minutes. She was unconscious, respiration seemingly suspended, eyes shut with dilated pupils, face much suffused, pulse very frequent and full (which I did not at this time count, but supposed it to be about 160). Concluding that she was suffering from acute congestion of the brain, which might have originated from a powerful nervous impression or emotion, such as fear, and having ascertained that she had been in this state for two hours, despite the application of cold to the head and other restoratives, I decided to try bloodletting, and forthwith opened a vein at the usual situation, from which blood flowed in a full stream. When from 10 oz. to 12 oz. of blood was drawn she opened her eyes and began to look about in a bewildered way, evidently "trying to think," as a bystander remarked; the convulsions ceased, and the breathing was performed audibly. I now temporarily arrested the hæmorrhage, believing a large bloodletting most injurious, at least in its remote effect, and finding that the convulsions did not recur and that she was growing more conscious I bound up her arm. It was observable that the blood was at first quite black, that it became red, and coincidently that the breathing improved and that the pulse fell considerably and became less bounding. After the arm was tied up I counted the pulse, which was then 135, and in four hours it came down to nearly 100. The subsequent course of the case was most satisfactory, convalescence having set in early, and I gave up attending after four days. I was informed that she was picked up after the fall quite insensible and unable to help herself in the least; that she was carried to a sofa, where she lay motionless and insensible for ten or fifteen minutes; that she then "came to herself," and was partly able to go upstairs to her bedroom; that on lying down in bed she suddenly became unconscious, and then for the first time became convulsed. She had not the faintest notion that anything had befallen her, maintaining that she did not fall on the stairs until reassured of the contrary by her master, who first went to her assistance. With the exception of scanty menstruation, she enjoys good health and looks well. Her mistress, however, has noticed that she is sometimes in low spirits without any obvious cause, which I think of importance as tending to mark a predisposition to cerebral disease, presumably of an epileptic character. Allow me, in conclusion, to observe that in my opinion her fall was caused by an epileptic fit, to which was superadded congestion of the brain of a severe form, and which was immediately and permanently remedied by venesection.

I am, &c.

WILLIAM CAMPBELL, L.R.C.S. Edin. and L.S.A.

Does the Spring Season in this Climate induce Physiological Changes in our Bodies of a Special and Characteristic Kind?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is often a great deal of truth in popular views on questions dealing with the varying physiological condition of our bodies, which views have probably either arisen from a lengthened blind experience of facts by the people themselves, or have been traditionally handed down through many years from the dicta of some eminent philosopher whose name, perhaps entirely forgotten, has long since ceased to be associated with them. A very general popular physiological belief is that aperients and diaphoretics should be copiously taken, especially by the young, in the spring time, and accordingly in this season electuaries of sulphur and cream of tartar are largely administered to their children by mothers of the humbler classes, with the object, as they will tell you, of "cooling the blood" of the children, and preventing possible disease. Is this strange custom a good one, and can it be defended by facts or reasoning? It is certain that seasonal alterations in temperature and other conditions of climate suggest to us such suitable corresponding changes in our diet, clothing, etc., as are usually roughly obeyed. But is there anything in the spring season in addition to ordinary climatal influences which makes the development of disease more common and derangement of our physiological economy easier than in any other season? I think there is. The spring is always marked by a strange waking to life of all creation, which cannot be adequately explained by the meagre theory that it is caused solely by increasing heat and light; whatever it is, there is an all-generative force, independent of these, which

> " . . . . Strikes through the thick blood
> Of cattle, and light is large, and lambs are glad,
> Nosing the mothers' udder, and the bird
> Makes his heart voice amid the blaze of flowers."

The time of the singing of birds is pleasant enough for the listeners; for the melodists themselves it is in all probability very different. It is not for joy of heart that the birds of our trees and hedgerows, that pair in the spring time, sing so sweetly, nor is it in obedience to blind instinct for our gratification; it is because of a strange restlessness and irritability that can find expression in no other way. These much-admired warblers are neuter as to sex during the greater part of the year; their yearly broods are no sooner able to take care of themselves than the essential organs of generation, testicles and ovaries, wither and become atrophied in the parents till the returning spring flushes these organs again with blood, and they swell and mature like the bud bursting from the branch, or through the slimy or sutured bonds which keep its delicate leaves folded up in vernation. And so in the rutting season of deer the essential organs of generation are developed to wither away in their turn when the object of their development has been accomplished. The same is the case with fishes, and, although it is in the autumn and early winter that the spawn of many familiar kinds of fish is deposited, it is in the spring that the ovum bursts to liberate the animal, and this is in reality analogous to the bursting of the plant bud and the development of testicle and ovary in hot-blooded animals breathing open air. The existence of a strange new force in spring cannot be questioned, and there is much ground for believing that it is different from mere exalted vital force of the ordinary kind, for hyper-vitality in diseased action does not produce the distinctive phenomena of this season. Is the human body exempt from the operation of this prevailing law, or do subtle changes occur in it, too, associated with and marked by physical signs and symptoms which we can appreciate—changes of a kind that plainly increase the liability of the body to disease, or may themselves run into this state? It will probably be found, when our experience is more extended, that there is an absolute heightening of the temperature of the blood of healthy persons in the spring time, just as in sthenic fevers, inflammations, etc., and as it certainly is heightened in birds at the time of their pairing. Late investigations with the clinical thermometer, now, happily, so generally used, would, I believe, if compared, go far to explode the theory that healthy blood must always be 98° Fahr., or very near it. I have often seen it as low as 95° Fahr., in persons in absolute health. The records of skin diseases indicate the spring season as the time especially marked by that type of highly inflammatory eruptions which are always associated with an exaltation of the temperature of the blood, and sthenic febrile affections, not caused, as in epidemics, by the agency of a specific poison, are of most frequent occurrence in spring. To dogmatise on insufficient facts is very objectionable, but is it not a question worthy of careful consideration whether in the interests of good health we should not in the spring submit the body to such a regimen as will combat its natural tendencies to disease in this season?

I am, &c. H. SMILEY KANE, B.A., M.D., etc.

Antrim, Ireland.

The Army Surgeon.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Although the warrant for the Medical officers of the army is delayed, there seems to be little doubt but that it will ultimately be published, and report says that when it sees the light—in addition to the changes, of which we have already heard—the officers of the Indian Medical service will find themselves amalgamated with the British service, or made into a civil corps, the care of the sepoy regiments being handed over to general service men. Whether men liable to serve in all parts of the empire, and consequently with only a portion of their time to serve in India, are likely to be as well acquainted with the language of that country as men who came out intending to make a lifetime of it, I leave others to decide. But with regard to our transformation into a corps exclusively staff, the more I think about it the more I am convinced that in future we should not be attached to regiments. If we are made into a staff corps and attached to regiments, we shall occupy a position held by no other description of officer in the British army. The man who could propound the dogma, that to attach men to regiments instead of regularly gazetting them, would improve their position, must be strangely destitute of common sense. Why, sir, the attached man would be the most isolated creature in (shall I call it) his regiment. Every member of the staff, pay-masters, and quarter-masters, and in cavalry riding-masters and vets, would be considered more of their corps than "that wretched fellow of a Surgeon who seems to have no corps of his own, and certainly does not belong to us, who out of pity we allow to get his grub at our mess." Can you, Sir, point out one single advantage which an attached man would have over a gazetted man? Do you think that the regimental Hospital sergeant and the regimental Hospital orderlies would do their duty so thoroughly and give as much respect when they had over them a staff doctor, as when they had one over them wearing the uniform of their corps? Fancy at what a disadvantage an attached man would stand in enforcing his right to choose quarters by seniority. In any dispute with the combatant officers he would find the sympathy of every man of them with their brethren more even than it is at present. It would be worth the while of no one to be the friend of one who might be shifted anyhow; and don't imagine that the officers of her Majesty's army are such generous fellows as not to take advantage of those in isolated positions. No, Sir, if after our disestablishment we are to retain any self-respect, any independence, we must be taken away from regiments entirely, and attached to stations like chaplains, purveyors, barrack-masters, etc., with lodging allowance or a house distinct from the barracks. Who ever heard of any of the above-named non-combatants having to fight and squabble with regimental officers over choice of quarters, which latter officers would entirely regard them as intruders in barracks at all. Why should we form the only exception to the rule for all distinct corps? Why should we form the only instance of staff corps men being attached to regiments, to which we are not to be gazetted? Why should we be different from pay-masters, vets., riding-masters, and quarter-masters on the one hand, and different from chaplains, purveyors, and barrack-masters on the other If we are not to be regi-

mental men in future, let the separation be complete, or the entire department will sink to a position to which it has never yet sunk, and will in its fall help very likely to lower the entire Profession. Outsiders dining at a mess will not forget that poor creature of a Surgeon whom nobody seemed to care for—the solitary member of that mess who had no right to call himself one of the regiment, and will remember that he belonged to the Profession of Medicine.

Probably a Surgeon with any pride about him would hardly ever dine at the mess, and would get his dinner at some hotel. Occupying such an extraordinary quasi-position, he certainly would avoid the mess on guest nights. Why, Sir, the very differences of his uniform would indnce strangers to ask who he was. Was he a guest, or did he belong to the regiment? No, he was not a guest, nor did he belong to the regiment. He could hardly accept any hospitality at any quarters where the regiment to which he was attached happened to be stationed, as he could make no return, having only the mess of which he himself was an honorary member to invite friends to, and having to ask the mess president as a favour to be allowed to do so. If attached to stations with the Hospital of the station under our own control, and the staff of Hospital servants, including the Hospital sergeant —composed of army Hospital corps, then under the orders of the Medical officers, and no one else, we would at least be independent. It would never do to have the Hospital dependent on each regiment for a sergeant and orderlies. Any one who has served in regiments must know how difficult it is to get captains of companies and troops to part with really good sergeants and smart men. Some men might even try to get rid of slovenly privates by shunting them into the Hospital as orderlies. If we are in future attached to stations, perhaps the change might be for the best. There is no doubt that all staff men occupy in regiments a somewhat false position. Relative rank, except with respect to choice of quarters, is a farce, and there are lots of little jealousies even with respect to choice of quarters. Sometimes even the pay of a Surgeon is viewed with jealousy. You will hear some unlicked young cub of 19 years of age, grumbling that he is not paid so highly as a staff officer of mature years, forgetting that when the staff officer in question was his age he was probably hard worked at college, instead of loafing about a barrack-square, and being paid for doing next to nothing. If Surgeons were separated from regiments, out and out, all these petty jealousies would cease. In conclusion, if happily we are in future attached to stations, it is most desirable that the appointments should be for fixed and definite periods, otherwise, the expense of frequent moves would be, especially to married men, well nigh ruinous. An unfortunate man with a wife and family might find himself saddled with the rent of more than one furnished house in a year. In India all Medical officers ought certainly to have horse allowance, as it is not always possible to get a bungalow near the Hospital, and a walk of a mile several times a day, perhaps with the temperature 90° or 100° in the shade, is rather severe, to say nothing of delay when summoned in haste. Hoping you will agree with me, I am, &c. An Army M.D.

COMMUNICATIONS have been received from—

Dr. H. G. Sutton; Mr. W. Smyth; Mr. Joseph Mackay; Dr. Dabbs; Mr. Leech; Mr. Mitra; Dr. H. P. Ribton; Dr. Lono Fox (with enclosure); Dr. E. Henoerson, of Shanghai; A Surgeon-Major Bengal Army; Dr. Alex. Fleming; Mr. Gascoyen; Mr. F. W. Young; Dr. Sturges; Mr. F. R. Wilson; Mr. G. T. Mockett; Mr. Johnson Smith; Mr. J. Chatto; Mr. C. Bader; Professor J. Woon; Dr. Moxon; Dr. Gervis; L.S.A. Lond.; Dr. Cheadle; Dr. A. H. Newth; Dr. B. W. Foster.

BOOKS RECEIVED—

Quarterly Journal of Microscopical Science, October—British and Foreign Medico-Chirurgical Review, October—Quarterly Journal of Science, October—Journal of Mental Science, October—Edinburgh Medical Journal, October—The First Dressing on the Field of Battle, by Dr. F. Esmarch—Black's Clinical Examination of the Urine—Hardwicke's Science Gossip—Practitioner, October—Dr. Bradbury on Vertigo, or Dizziness—Monthly Microscopical Journal, October—Monthly Homœopathic Review, October—Journal of Anthropology, October—Medical Mirror, October.

APPOINTMENTS FOR THE WEEK.

October 8. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

10. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

11. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

12. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

14. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Clinical Society, 8½ p.m. Dr. John Harley, "A Case of Injury to the Liver." Mr. Spencer Watson, "Four Cases of Parenchymatous Keratitis associated with Acute Rheumatism." Dr. John Ogle, "A Case of Tetanus treated with Ice and Belladonna." And other Papers.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 1, 1870.

BIRTHS.

Births of Boys, 1099; Girls, 1117; Total, 2216.
Average of 10 corresponding weeks, 1860-69, 1990·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	652	625	1277
Average of the ten years 1860-69	627·7	669·2	1236·9
Average corrected to increased population	...	...	1361
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	3	35	3	2	...	4	1	5
North ...	618210	6	4	47	1	...	7	8	...	10
Central ...	383321	...	2	13	3	1	2	4	...	3
East	571158	6	3	18	...	1	3	...	5	7
South	773175	1	2	58	3	9	2	6	4	12
Total	2803989	14	14	171	10	13	14	22	10	37

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·188 in.
Mean temperature	55·7°
Highest point of thermometer	71·9°
Lowest point of thermometer	37·4°
Mean dew-point temperature	50·5°
General direction of wind	N.E., E.N.E., & E.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 1, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Oct. 1.	Deaths Registered during the week ending Oct. 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2216	1277	71·9	37·4	55·7	13·16	0·00	0·00
Portsmouth ...	122084	12·8	64	32	75·1	33 5	54·8	12·66	0·00	0·00
Norwich	81087	10·9	52	53	71·7	43·2	56·6	13·66	0·00	0·00
Bristol	171382	36·6	113	87	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	45	24	71·2	40·2	54·5	12·50	0·01	0·03
Birmingham ...	369604	47·2	222	110	73·6	37·0	55·6	13·11	0·00	0·00
Leicester	97427	30·4	66	56	73·2	36·2	54·9	12·72	0·00	0·00
Nottingham ...	88888	44·5	68	38	73·7	37·0	55·5	13·05	0·00	0·00
Liverpool	517567	101·3	345	301	70·4	44·8	55·9	13·28	0·00	0·00
Manchester ...	374993	83·6	283	159	73·5	37·0	54·4	12·44	0·00	0·00
Salford	121580	53·5	93	50	75·0	38·9	55·9	13·28	0·00	0·00
Bradford	143197	21·7	130	64	68·5	43·0	55·3	12·94	0·00	0·00
Leeds	259527	12·0	319	138	70·0	42·0	54·5	12·50	0·00	0·00
Sheffield	247378	10·8	189	98	71·0	37·0	53·0	11·67	0·00	0·00
Hull	130869	36·7	72	67	67·0	33·0	49·4	9·66	0·00	0·00
Sunderland ...	100979	30·5	129	34	...	...	...	...	...	...
Newcastle-on-Tyne	133567	25·0	128	49	64·0	43·0	52·0	11·11	0·00	0·00
Edinburgh	178970	40·4	109	63	68·7	42·0	56·0	13·33	0·00	0·00
Glasgow	468189	92·5	378	182	66·8	38·5	53·9	12·17	0·00	0·00
Dublin (City, etc.*)	321540	33·0	166	144	71·9	38·8	56·5	13·61	0·00	0·00
Total of 20 Towns in United Kingd'm	7216325	33·8	5187	3026	75·1	33·0	54·7	12·61	0·00	0·00
Paris—Week ending Oct. 1 ...	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Sept. 24 ...	622087	167	...	265	...	...	52·5	11·38	...	...
Berlin—Week ending Sept. 29 ...	890000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·188 in. The highest barometrical reading was 30·40 in. on Saturday morning, and the lowest was 30·00 in. on Monday.

The general direction of the wind was N.E., E.N.E., and E.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital.

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

Lecture VI.

In the last lecture I was showing the importance of recognising the different kinds of activity which different groups of elements of tissue exert to compose their part of the process of inflammation. We took the group of elements which are permanently cellular in form, whose function is discharged by repeating the production of new cells while the old die away; and the propositions advanced were these—

1. That these cellular elements, under slight morbid irritations, show a tendency to the over-rapid multiplication of their numbers, constituting hyperplasia or numerical hypertrophy. I think it was clearly seen, in the instances I gave, that the cellular elements of tissue do so multiply with great facility.

2. That the swellings so produced in organs that abound in cellular elements are commonly transient, and easy of requiescence and subsidence; and

3. That, under conditions the opposite of irritation, these cellular elements show an equally marked proneness to wasting.

What I wish to have shown is that there is a class of diseased actions in the cellular elements of tissues which are easily excited by irritations that do not affect the intercellular (connective) elements. They are caused by slight causes—too slight, at least, to evidently arouse the connective elements. Yet the swelling attending them is great if the multiplied cells are confined in the tissues, as in glands, and so are unable to escape; while if, on the other hand, the irritation is to a free surface, the new cellular elements slip away in the accompanying flux of secretion, causing catarrh of the surface.

Another character of these catarrhal irritations is that their duration is like the duration of the cellular elements, whose multiplication is their tangible part. It is short-lived.

Now, to my mind there has always been present one difficulty, in considering the history of what are called inflammations, which is greater than all the other difficulties, and that lies in the manifold differences that the so-called inflammations offer among themselves. The catarrhal irritations I have described are inflammations—so, too, are pyæmic abscesses; and so are lupous ulcerations; so are chronic indurations of the lung; so is an erythematous blush. In the common history of inflammation as a process of exudation from vessels, we see no hint at a reason explaining these differences.

I am trying to shew you how far, by considering the elements which these different processes are worked out in, we may see the grounds of the differences in the inflammations by observing a correspondence between the kind of pathological action which the elements in question evince in their irritation, and the sort of action which those elements exert in their natural functions.

While recognising that cellular elements function by multiplication, we can infer beforehand and the more readily discern that they shall be the elements which show catarrhal irritations under slight acute excitements, and that they shall be the parts which most readily undergo great hypertrophies.

If now we look to the tissues which have no cellular elements in them—such as bone, fascia, etc., whose composition is all intercellular—we find that such irritations as cause catarrhs of mucous surfaces (such as exposure to cold, for instance) will not produce any multiplication of elements in them. If my clothes get wet, I may get a catarrh in my nares and trachea, with a distressing amount of proliferation of their epithelium and flux of mucous secretion; but if the irritation, instead of attacking my nares, fixes on my lumbar fasciæ, then there is no flux, no suppuration, no lymph—nothing, in fact, of that kind to correspond; there is only pain and stiffness. Why is this? The reason is that cellular elements easily multiply, and so such an irritation to the seat of cellular elements causes catarrh; but intercellular elements don't easily multiply, and hence the same irritation causes no catarrh on the fascia which is wholly composed of them. Its pains are the equivalents of catarrh. So rheumatism is catarrh of the fascia, and *vice versâ*, and the etymological connexion of the words is justified.

We have already partly seen, and shall continue to see further, that the variety of modes in which the compound tissues develop morbid products at a slow rate is very great. These processes or modes make up what are variously called hypertrophies, indurations, chronic inflammations, and so forth. We must learn that a large part of the differences, in different chronic inflammations, does not lie in a diversity of sorts of changes occurring indiscriminately in the parenchymatous elements of the tissue, without regard to their nature and habits, but rather they lie in the limitation of the process to different tracts of those different kinds of elements that go to construct the organ concerned.

We shall have, further, to be impressed with the truth that any of these chronic processes is liable to be exaggerated to such a pitch that a new order of phenomena arises. The healthy nutrition, with its evenly distributed flow of nutritive currents, is in these lower degrees only altered in its balance; but, after a certain pitch of intensity, it is overpowered or exaggerated out of all character. It becomes enormous, and the changes then are accompanied by pain, heat, redness, and swelling on a great scale. Then we say there is inflammation in the old Galenical sense. So that inflammation is *not one thing*, but the *climax of many*—nay, of any textural change. Nevertheless, its phenomena, whatever its origin, are so important that the continued recognition of it as a definite thing in therapeutics is essential.

We have already had under consideration these phenomena of Galenical inflammation, when studying inflammation from the point of view which the changes seen in the vessels afford. What I now want to show you is that the microscopic elementary changes which we are at present considering—those changes which arise in the nuclei and cells of the textural elements—stand to the vascular changes as antecedent and causative of them. The extent to which these changes in the cellular and intercellular elements create inflammatory fluxion, with its attendant phenomena of pain, heat, redness, and swelling, is dependent on the degree of severity they reach. And it is important to recognise the truth that the processes of elementary multiplication, which make the microscopic part of the history of inflammations, may lead to thickenings, etc., in the textures, and yet may be so slow and so feeble in intensity that the Galenical phenomena never arise, or, at least, may escape notice. Thus, we often find extensive thickenings—say of the capsule of the liver—in cases where there has been direct denial of any pain in the side; and the question arises—are these thickenings inflammatory, were they caused by inflammation? Pray see how far this is a question of terms. If by inflammation you mean the heat, pain, redness, and swelling which define it at the bedside, then the thickened capsule was not "caused by inflammation"—there was no inflammation. You would probably call the process of thickening "hypertrophy," or, perhaps, be content to say "irritative thickening." But, if you include in your idea of inflammation the process of elementary multiplication as its leading and causative factor, as you are sure to do if you aid your perceiving power by a proper use of the microscope, then you will be disposed to consider the thickening as essentially inflammatory, and will express your view by saying that the irritation, of which the thickening was the result, was too feeble and slow to evoke active vascular changes of such intensity as to draw attention. When, however, you have come to see that those active vascular changes which of old received the name of inflammation are only phenomena created by the texture multiplications, and thus are secondary, and, indeed, hold the same relation to the multiplication as the light, heat, and other imponderables that appear in fire do to the tangible matter that is burning there, then you not only have a clear sense of the clinical and pathological use and import of the word, but are reconciled to its derivative signification, seeing that the Galenical four are the flame of the elementary microscopic change, which underlies them as the chemical interchanges underlie common combustion; and which, like those chemical changes, may be so slow and feeble as to progress without exciting them. And just as slowly oxidising phosphorus is liable to burst from its flameless smoulder into fierce burning, so the slower forms of elementary multiplication which create painless thickening may light up into acute inflammation. The example I have chosen in the capsule of the liver may well serve again as an instance. How often we find these thick capsules coated with recent acutely formed lymph. How often do we find an inflammation light up on the surface of such a liver, and, spreading over the whole of the peritoneum, kill by acute general peritonitis.

I think we should thus recognise inflammation as the climax

of severity of a great variety of processes, just in the same way as combustion is the climax of a great variety of processes. The burning of chlorine in hydrogen, or of sulphur in iodine vapour, is equally a combustion; and without going so far for our illustration, we all know what various substances—such as gas, wood, or tallow—in an ordinary way will make practically the same kind of flame when they are lit.

To sum up, then, that we may proceed in our inquiry. The view I want you now to take of all these processes that are called irritations, hypertrophies, indurations, and chronic inflammations, or subacute or sub-inflammations, is that their differences arise out of the properties of the kind of elementary component texture they involve, and that from this point of view the differences of the various slow processes that occur in any organ may be better understood; but that, given a certain or rather an uncertain augmentation of their violence, and then their differences are nothing to the point. The process of acute inflammation has prevailed, and the import and moment of the affair now is a question of vascular congestions and stases and the results of these, just as the pathologists of the bygone thirty years have described them.

Now let us proceed to examine the dealings of the intercellular elements under such irritations as compel them to multiply.

There is no tissue which has not got some of these intercellular mechanical tissues in it, to give shape and consistency to the organ. The arteries and nerves, the brain, even the retina—every tissue has intercellular elements in some form, modified to suit the requirements of the part. To describe in detail their various modes of distribution would be to give you the whole range of histology in detail-outline.

And hence it is very important for us to know the pathological habits of this group of elements in a general way; for the changes in these elements make a very important class of diseases in all organs.

Some organs, as the bones, joints, and fasciæ, which discharge purely mechanical offices, are composed almost entirely of such elements, the other elements, such as bloodvessels, and nerves, and marrow-cells, only entering into their composition in the same subsidiary way in which the connective elements enter into brain, or kidney, and other properly vital organs.

Now, remembering what were the characteristic dispositions of the cellular elements—namely, rapid multiplication from slight causes, easy subsidence to natural volume, and corresponding tendency to atrophy under states the opposite to excitement—if we observe the pathological habits of the intercellular group of tissues, we shall see they are very different from these. I think they may be stated thus:—

1. The causes that give rise to sudden increase or diminution of their quantity require to be more severe; and the causes of slow increase more prolonged.

2. The resulting increase of the intercellular elements, if they are hastily produced in numbers, as in severe acute irritations, produces a very grave effect on the organ concerned—an effect which partakes of some of the characters of what is called "malignancy."

3. But if the new intercellular elements attain organisation, the increase is permanent.

As to the first proposition, I have already dwelt on it in contrasting catarrh with fascial rheumatism, seeing that catarrhal irritation, which produces a free epithelial flux, has no such effect on the fasciæ. But this first proposition is for the most part rather an aspect of the second; for we generally can only infer the severity of the cause—of which in so many diseases we are ignorant, or, at least, whose force we cannot measure—by the severity of the effect which this second proposition affirms. The second and third propositions often apply together to the severer sub-inflammations of compound tissues, many of which include both a grave destruction and an equally pernicious formative change progressing together.

We must observe that if the new elements produced in the multiplication of intercellular tissues are got in large quantity and hastily, then we are no longer dealing with a fact of the same significancy as when cellular elements multiply and produce cells. For the new elements so quickly arising have not the characters of the mutually connected parent connective cells, but are free, rounded, or caudate, and approach the character of epithelium (lupus), or of white blood cells. Neither can they be regarded as the earlier stages of cells like their parents; for, being thus hurriedly made, they could not rise to the full development—they are lower things, with different tendency. We see that the tissue has produced forms unlike its own. Do you say, What of that? Well, if we agree in Virchow's able and original generalisation of the doctrine of heterology, we shall see that very important consequences follow from the production in a tissue of forms unlike those proper to it. The new forms are heterologous and proportionally malignant, so that they tend to infect—and, indeed, is it not an admitted truth in general pathology, at present, that all living pus developed from areolar tissue, corinm, or any intercellular elements is contagious. They are heterologous. On the other hand, catarrhal cells, pus-like as they may be, are not so. But when the new connective elements are produced slowly, they never differ from their adult form, as in simple divisions of the cells; or whatever differences they have are only those of young things from old things of the same kind, which time will conduct to the parent's form, and, in the case of these elements, to the parent's permanency. If you watch the most prolonged irritations of epithelial (cellular) elements of the skin, you will find that if only you can remove the irritation, whatever that may be, the resulting thickening vanishes. Take, as an example, the case of a postman with paraplegia, the soles of whose feet will quickly lose their thick epithelial cover; or, as another example, the case of common lepra, counteracted by arsenic—all the morbid product is soon removed. But if, instead of the epithelial (cellular), the irritation has increased the corium or subcutaneous (intercellular) elements equally gradually, so that they have had their time for organisation as they formed, then you can no more think of removing these than you would think of removing the fascia lata with physic.

Now to proceed to practical illustrations of these doctrines, and show the respective actions of the cellular and intercellular forms, when side by side in the compound tissues.

We can contrast the active changes of the cellular and intercellular groups by taking as instances the same organs as we in the last lecture used to show the effects of cellular irritation—for all the organs that contain cellular elements contain also intercellular; and we shall find, in the same tissues as have furnished us with examples of the facility and benignancy of formative changes in the cellular elements, sufficient evidence of the obstinacy or severity of formative changes in the intercellular elements.

To begin with the skin: we observed before that those skin diseases that were characterised by multiplication of the epidermis were slighter and more transient, and leave no scars behind, and were more amenable to remedies. Take the skin diseases that depend on derangements of the epithelium, and you find them short-lived, and nearly all curable by arsenic. We will not instance the eruptive fevers, for in them the disease of the skin is but the skin of the disease; but take the group that are called "Squamæ"—namely, lepra, psoriasis, and pityriasis; or the "Vesiculæ" (Sudamina)—herpes and eczema; or the "Bullæ"—pemphigus and rupia; or the "Pustulæ"—ecthyma and impetigo; and of the Papulæ lichen, which is a heap of epidermic cells about the mouth and hair follicles.

In all of these that are accompanied by excessive production of cellular elements—and all of them at some time in their history do produce an excess of these—the use of slight local treatment of a stimulant kind, combined in some cases with arsenic internally, will soon get rid of the disease—*provided always that the disease remains limited to the epidermic tissues.* When, as in rupia, or inveterate psoriasis, or eczema, or lichen ruber, the intercellular tissues of the corium take on action, then the disease is obstinate and severe.

If now we take those skin diseases that implicate the true skin with its intercellular elements, we find them very obstinate and unmanageable.

These diseases make the family of Tubercula, and are—elephantiasis, molluscum, acne, lupus, framhæsia, and keloid. If we look over this series we see that they include very obstinate and uncontrollable diseases, requiring severe measures for their cure, or curable only by removal of the affected part, or quite incurable.

As to their real nature, they are all of them founded on an increase of the intercellular elements of the skin, or of the skin and subcutaneous tissue. Some are more acute and some chronic, and those that are acute approach near to malignancy. Lupus consists, as far as its anatomy goes, of a production of fresh connective tissue elements. These fill up the spaces in the areolar tissue, and are either caudate if the process be slower, or pus-like if the process be severer. Indeed, a certain extent of suppuration will be sure to accompany the process at some time. The formation of connective tissue is often very considerable in lupus, and gives rise to the thickened, brawny state of the diseased skin, while it remains as dense scar-substance at the healed spots. In some cases of lupus in the

hand, the hand becomes much distorted and misshapen by the contraction of the scar tissue. In more acute lupus, the new elements of skin connective are produced too hastily for plastic formation, and they and the tissue which produces them perish together, producing lupus exedens, and perhaps rodent ulcer, which some think to be cancer.

Generally the epidermis is little affected: it grows dry and cracks, and is broken through by the ulceration, and the sebaceous glands and hairs disappear from the part, though a few may remain. But sometimes the epidermis is produced in great quantity, so that a scaly surface covers the diseased patches, and the condition called psoriasis lupus is produced.

If we now take the very obstinate disease, acne and sycosis, this is what we find—the hair-roots are the parts essentially implicated; so that it is commonly and rightly said to be a disease of the hairs and hair follicles. But the obstinacy of the severe forms of this disease is not due to the hair follicles, but to the circumstance that suppuration occurs in the skin around the hairs; and in severe cases, also, permanent connective tissue is formed, and the skin is thickened and scarred. This formation of new connective in the skin reaches its highest development in frambœsia, where the thickened skin, with hairs passing through it, rises off the surface in a little prominence, having the look of a raspberry. The hairs whose follicles by their inflammation have created this little mass still pass through it, and pus points are seen in it on section. That most unsightly disease, acne rosacea, in its later stages, shows decided increase of the connective tissue in the skin, along with it inveterate obstinacy. In true leprosy, also, there is a growth of these intercellular elements in the corium, thickening the skin to the production of the characteristic tubera. They are described by G. Simon and by Danielssen and Bock as rounded and caudate corpuscles, in the meshes of the cellular tissue of the corium; and while the connective thus thickens, the hairs and glands in the skin waste, a few glands enlarging. In the dissecting-room is a drawing which shows masses of such corpuscles round the veins from a case of leprosy that lay for a long time in Stephen ward. Dr. Carter has described the like increase of connective tissue corpuscles as occurring in lepra anæsthetica in the nerves of the limbs, causing them to swell, while the nervous matter wastes.

In elephantiasis and vitiligoidea, on the other hand, which are chronic, and of low intensity, there is no acuteness and no malignancy, but only an intense obstinacy. The same is the case with Addison's keloid, which was believed to be permanent, but Dr. Fagge's important researches have shown that after lasting a great while it may disappear.

From this review of diseases of the skin we learn that obstinacy and severity in the characters of any of them goes with the affection of the intercellular elements which compose the corium, while diseases that affect the cellular elements are both milder and less lasting.

Indeed, when considering the several diseases which in their earlier stages limit themselves to the epithelium, or hair, or follicles, we find that they only retain their proper characters so long as they limit themselves in this way, and that when the diseases get deeper hold, and cause increased thickness of the connective elements in the skin, then they acquire a common character of severity and obstinacy, which may be said to reduce their differences to very little. When lichen has become lichen ruber, and eczema or psoriasis have become inveterate, then to all intents and purposes they have acquired common characters, and will need the same management—rather, perhaps, will equally obstinately resist management. They might as well be elephantiasis or ichthyosis, for which, on the lower extremities, examples of them may be mistaken.

We often find that a variety of opinions are given as to the proper name of such cases. What guides us to the true view of their origin is the history, coupled with any recent patches that may be present; and while we are glad to discern this, it is important that we should recognise that, having caused hypertrophy of the corium tissue, they have raised a new problem. For the new connective has all the disposition which the corium tissue itself has, through its intercellular elements, to remain in a complete state of development when it anyhow attains to it.

SUPPLY OF WATER TO SYDNEY.—Three schemes are before the municipality for the supply of water to Sydney; but as neither is free from objection, the execution seems to be postponed *sine die*.

ORIGINAL COMMUNICATIONS.

NOTES FROM THE WAR.

By A. TREHERN NORTON, F.R.C.S.,
Assistant-Surgeon, St. Mary's Hospital.

WHEN I arrived at the seat of war after the battle of Gravelotte, I found large numbers of the wounded, and still larger numbers of sick, lying upon straw. The sick were suffering chiefly from dysentery and typhus fever. Now, to an English mind the idea of a sick man lying upon straw seems the height of destitution; but, from experience, I soon found that straw or hay as a bed was not so greatly to be despised, for as the organisation for the care of the sick and wounded became improved, mattresses containing straw replaced the former litter. These, after a short time, became in places so hard and matted that they were productive of very numerous bed-sores, whereas the simple straw was readily shaken and made even for the patient, whilst, at the same time, those portions which had been soiled by discharges were readily separated and thrown away. I think, also, that hay and straw must act, in part, as a disinfectant. But the sick and wounded wanted at that time not only beds—food and clothing were deficient. A sick soldier can, and most frequently does, lie with no other covering than his uniform; but this cannot suffice where a man has undergone some severe operation and where, as in bullet wounds or injuries from shell, it is necessary that washing and Surgical dressing should be gone through some two or three times a day. I found, however, that many men possessed no shirt; that their uniform had been lost in part; and that blankets or coverlets were not forthcoming in sufficient numbers to supply the immense number of men that were wounded in the three days' battle of that neighbourhood. With regard to food, it is not at all uncommon that the commissariat department of any army breaks down for a time in the supply of the fighting troops, and it cannot, therefore, be difficult to understand that the wounded and sick, who are necessarily looked upon as of secondary importance, and who, from being scattered about in various villages, farm buildings, and temporary erections, are for a time unknown as to numbers, condition, or abode, should be in part, or even altogether unprovided for.

The Hospitals in which the wounded were placed after the battles were, of course, composed of any and every place which possessed a roof. The villages on and around the battle-fields were all filled, and then the wounded were transported to many other villages at a greater distance; and as it afterwards turned out to be the case, fortunate were those who were carried to a distance. A red-cross flag was immediately hung over every church, house, or building which contained the wounded.

The churches were the best Hospitals; they were well lighted and well ventilated, and from their height they gave a good allowance of cubic feet of air to each patient. The other extempore Hospitals were variable. In many the wounded were necessarily closely packed, and, as the rooms were very low, the space of air was totally insufficient; added to which many objected to have the windows open. In many, on the contrary, the bursting of one or more shells had broken every window, and in these the ventilation was perfect; and so long as the weather remained fine nothing could be much better for the patients. But soon the rains came, and now the orifices through which the shells had entered or had passed gave free passage to the wind and rain, and the rooms became slopped with the water which came in. Barns were in a similar condition—all that could be desired in the fine weather, miserable indeed in the rainy season.

But as days went on, and the changes in the weather continued, decomposition commenced in the human bodies and horses which were buried on the battle-fields. The graves were but lightly covered with earth, and the smell soon became unbearable; and in the midst of this most poisonous of atmospheres were those Hospitals which were the most crowded, and which contained the most gravely wounded cases. It cannot be supposed that in these places the percentage of recoveries was large, or the result of operations satisfactory.

In a very small village, Anoux le Grange, there were at first upwards of 800 wounded. The number of deaths was immense, and it became necessary to clear them out of the houses at once. Many were evacuated to other villages. Wooden sheds were erected. It was found that in the sheds many of the cases commenced to improve at once. The sheds, however, had a some-

what miserable aspect, for, though the eaves were open, and the ventilation was sufficient, the roofs were boarded in, and the sheds were dark. Not only in Anonx, but in other places, sheds were erected. The Medical men all desired to be in charge of the sheds in preference to the honses. But later in the season, towards the end of September, a new difficulty showed itself. I have already referred to the scarcity of blankets and covering of all sorts; and though, of course, a large number had been distributed, not only by the Prussians but by our own ambulance—for we (Mr. Sewill, Mr. Lyman, and myself) had given away upwards of 1000 blankets, besides other covering of every description, in our own immediate neighbourhood of Briey—still, the necessity became more and more felt. The men complained to me bitterly of the cold; they said they could not sleep at night, the cold was so great, and often in the day it seemed to them but little less. Men already influenced by suppurative discharges, perhaps having undergone some severe shock also, and many at the same time suffering from diarrhœa, can make no headway against cold. They lose their vitality, and die.

The reasons already explained have shown the necessity of evacuating many villages. Orders, therefore, have been issued that certain villages should be at once evacuated, and under this order all, whether slightly or whether gravely wounded, have been removed. Cases of amputation and other operations, whether recently performed or not, have been taken among the rest. Every care has been bestowed in their removal, but severe consequences have resulted—in many instances secondary hæmorrhage has been induced, and in two cases known to me hæmorrhage from the main artery, resulting in immediate death. In some amputations which were doing well before their removal, the flaps afterwards became œdematous, abscesses and extensive suppuration ensued, and the cases were lost. But then, on the contrary, cases which were in a condition to be moved improved still more rapidly in their new abode; and, though evacuation of a village has in many cases been attended with loss of life, it has also probably been the means of saving many who would have fallen victims to typhus fever or to dysentery.

After the battles of Sedan and its neighbourhood, the wounded were taken off *viâ* Libremont by railway into Germany as soon as it was possible. The waggons were specially fitted up with supports and with convenient apparatus for removing them, and it is astonishing how comparatively few remain in the vicinity of those battle-fields. In those neighbourhoods, however, as in others, are to be found the two same diseases—typhus fever and dysentry so-called—the enemies of the Surgeon, which spread to the operations when perhaps they are doing well, and render all statistics unavailable.

A CASE OF ABSCESS OF THE LIVER—EARLY EVACUATION OF THE MATTER BY PUNCTURE—RECOVERY.(a)

By GEORGE SCOTT, M.D.,
Physician to the Royal South Hants Infirmary.

W.G. aged 27, sailor, states that he has followed the employment of a mariner for the last twelve years. For the last four years he has been in the Peninsula and Oriental Company's service. He has always enjoyed very good health, never having been ill all his life until at the end of last year (1868), when he was seized with pains in his right side. I saw him on December 31, 1868, for the first time, and found him complaining of severe pain in the hepatic region, increased on taking a long inspiration, but he had no cough. He went through what I considered to be an attack of acute hepatitis. He was leeched, had turpentine stupes applied to the painful side, was purged, and so on. I attended him until about the end of January. The pain in the side was obstinate, and lingered longer than one would have anticipated. Although he has been in all parts of the world he has never had dysentery or any other disease incidental to a hot climate.

On March 4, 1869, being apparently quite recovered, he went to sea again in the *Bangalore* steamship, but had been only one week on board ship when he was again seized with severe cutting pain in the right side of a similar character to that he had suffered from two months and a half previously. He was put on the sick list and attended by the Medical officer of the ship. Abont two or three days after the pain seized him again in the side, the latter began to swell, and the Doctor told him that he had either a tumour or an abscess in the liver.

Being ill, he did not make the whole voyage to Marseilles, but was sent home again from Alexandria in the *Massilia*, and arrived at Southampton on April 1, 1869. During the fortnight of his coming home he felt better and suffered little pain.

I saw him again on Monday, April 5, when he told me of his having suffered a relapse and of the swelling in the right side. On examining him without his clothes on the following day, I found to my surprise a large swelling in the right side pushing out the ribs at the hepatic region. The right side at this part was much larger than the left. On measurement the right side was 17½ inches round from the spine to the middle line in front at a point about three inches below the ensiform cartilage. The left side measured only 16½ inches round at the same level. The swelling was absolutely dull on percussion and corresponded evidently with the liver. The hepatic dulness extended higher and lower than natural posteriorly. Anteriorly it extended higher but not lower; the percussion sound just below the ribs in the right hypochondriac region being quite tympanitic, thus showing no increase in size of the liver at its inferior margin anteriorly at this time. He had no pain at this period, only a sensation of weight at the right side. He was able to walk about quite well. I merely ordered him a little tonic and an aperient when necessary. I told him to take plenty of meat and nourishing diet, but no beer nor other stimulants.

Towards the middle of April he began to complain of pain and tenderness over the tumour, which was relieved by an occasional sinapism and by an opiate at night. He also felt the swelling getting larger internally, and about this time I could hear the percussion sound dull for a little way below the ribs anteriorly, thus showing slight enlargement of the liver in this direction. The external appearance of the side was much the same as when I first examined it on April 6.

He went on getting worse, and at the end of April his appetite began to fail. He could lie only on the back; he felt great tenderness in the affected side, and especially in the centre of the tumour posteriorly. He also had a few shiverings followed by slight sweatings during the last two weeks in April. The last sweating occurred on April 30.

On the latter day (April 30) the anterior edge of the liver was felt distinctly for an inch or more below the ribs. The left hepatic lobe was also felt easily a little to the left of the epigastric region.

Taking into consideration the history of the case, the physical signs and the symptoms, more especially the pain and tenderness of the tumour, and the shiverings and sweatings, I judged the case to be one of hepatic abscess.

On Friday, April 30, I asked Mr. Mott to see the case. This gentleman thought that he could feel deep-seated fluctuation between the ribs in the tumour, posteriorly, at the part where the patient complained of the greatest tenderness.

Mr. Mott being of the same opinion as myself as to the nature of the tumour, we determined to open it with Bowditch's trocar and draw out the matter with the syringe.

On Sunday, therefore, May 2, at 3 p.m., I froze the skin over the tender part of the tumour posteriorly, and then made an incision about one inch and a quarter long in the skin and subjacent textures down to the outer surface of the eleventh rib, taking care to make the cut in the skin about half an inch below where I intended to plunge in the trocar. Then Mr. Mott holding up the skin and subjacent textures, as far as possible, with the fingers of both hands, I plunged in the trocar in the space between the tenth and eleventh ribs, and about six inches external to the spinal column. I then drew off easily two pints and a half of a reddish-brown, grumous-looking pus, so characteristic of the matter obtained from a hepatic abscess. Towards the end of the pumping there was considerable resistance to the action of the syringe, and the patient complained of a dragging pain as if his inside were coming out. Notwithstanding the complaints of the patient, I got away all the matter that would come, which, as above stated, was two pints and a half of perfectly bland, reddish-brown pus, having no smell whatever.

On withdrawing the trocar the skin was allowed to slip over the opening into the abscess, thus closing the latter in a valvular way. A pad of lint was strapped over the external wound, and a calico bandage put round the body. The patient was a little faint, but otherwise bore the operation very well. He had some brandy and water administered to him, and was then put to bed.

(a) Read before the Southampton Medical Society.

I saw him again in the evening at about 8·30. He said he was easy and comfortable, and much relieved by the operation. ℞ extr., opii gr.jss., extr. hyoscyami gr.j., m. ft. pilula horâ somni sumenda.

May 3, Noon.—Rested pretty well last night. Pulse 124, of fair strength. Hardly any tenderness in the tumour. Says he feels much easier than before the operation. Has less sensation of weight in the side. Can sit comfortably when once up (which he could not do before the matter was let out), but has pain in rising. Had an egg beaten up in tea this morning at about six o'clock, and another boiled egg with some bread and butter since. Rep. pil. extr. opii et hyoscyami. An aperient pill to be taken to-morrow morning.

May 4th.—Rested very well last night, better than for the last week or two. Pulse 102, of fair strength. Had an egg beaten up in his tea at 6 a.m. and another at 8 a.m. this morning with some bread and butter. The aperient pill has operated once. Tongue cleaner, and appetite pretty good. To have fish and beef-tea and three or four eggs in the twenty-four hours. To have no beer, but only two glasses of wine daily. Omittatur pilula extr. opii., etc.

5th.—Slept very well last night without the opium pill. Pulse 100, of good strength. Had four eggs yesterday and a sole for dinner. Urine loaded with lithates. Tongue clean.

6th.—Is up and out of bed to-day. Slept well last night without the opium. Appetite good. Bowels regular. Urine very thick. Thinks abscess is collecting again. To have meat diet.

7th.—Pulse 94, of good strength. Appetite very good. He measures to-day 16½ inches round the right side, and 15½ inches round on the left side, at the same level as in my previous measurement on April 6 last. Dulness posteriorly begins at the level of the eighth rib. Anteriorly, just below the mamma. Urine clear. Tongue clean. Bowels open.

11th.—Not so well to-day. Feels great pain in the right side at the swelled part. Pains him to lie on either side, especially on the right. Appetite keeps good, and he thinks he is gaining flesh. Pulse 96. Rep. pil. extr. opii et hyoscyami ut suprà.

12th.—Pulse 96; slept well; feels no pain now. Rep. pil. opii etc., omni nocte.

14th.—Feels easier; sleeps well with opium pill; thinks he is gaining flesh. I dressed the wound to-day for the first time; it is open to the extent of about one inch; is discharging a small quantity of healthy pus; bowels open; appetite good; urine clear.

18th.—Much better.

20th.—Some pain to-day; no shivering since the operation, but the perspirations are abundant; bowels moved three times to-day; stools very offensive. ℞ mist. aperient. ʒij., ft. haustus, et sum.

21st.—Slept well, but feels a good deal of pain to-day; has a sensation of quivering in the tumour; pulse 90; rather weak; external wound nearly healed; he vomited aperient mixture yesterday. Rep. haustus aperiens hâc noct.

24th.—Feels better; no pain; to have two aperient pills to-morrow morning.

25th.—Slept well; pills acted well this morning; cannot lie on either side; feels no pain when he lies quiet on his back; has pain when he walks from the tumour shaking.

June 7.—During the last few days he has been suffering from symptoms similar to those he had before the operation was performed a month ago, but not quite so severe—viz., great pain and tenderness in the tumour, inability to lie down comfortably, restlessness, a falling off of the appetite, and so on. Under these circumstances, it was determined to repeat the operation with Bowditch's syringe, using, however, in this case a larger trocar and canula. The latter was inserted as nearly as possible in the same place as before. Two pints of matter were thus drawn off; the fluid was whiter than before, also thicker and more gelatinous. The patient bore the operation very well. He was put to bed and a pill composed of extr. opii gr.jss., extr. hyoscyami gr.j. given at bed-time.

8th.—Pulse 83; slept pretty well last night; much relieved by the operation yesterday; to have meat diet.

9th.—Pulse 90; of fair strength; slept well last night without any opium pill; suffers no pain; urine thick.

10th.—Pulse 92; feels better; has been out in the garden to-day. Can eat and drink as heartily as any healthy man; not allowed beer, but only a tablespoonful of brandy twice daily; bowels open; has had no sweating since last operation.

16th.—I ordered him a teaspoonful of cod-liver oil to-day to be taken one hour after breakfast. The oil, however, made him so sick that he could not go on with it as I wished him to do; some aching pain in the right side to-day. With the exception of this he has had no pain in the side at all since the last operation.

18th.—Tolerably well; no pain to-day; had great pain on the evening of the 16th inst.; took an opium and hyoscyamus pill soon afterwards, which lulled the pain, and he felt better yesterday morning; slept well last night without any opium.

26th.—Distinct fluctuation is felt outside the ribs on the right side, and about two inches above the opening in the skin made at the operations. At this point fluctuation was most distinct, but it could be felt over a surface fully as large as a hand. There was also a little fluctuating tumour about the size of a large walnut, just immediately above the wound in the integuments above mentioned, but, on pressing this, no matter exuded. There is some tenderness at the latter point, also at the spot above where the fluctuation is most distinct.

27th.—At 11 a.m. to day, when he was out in the town, the abscess burst and let out a large quantity (he says fully one quart) of matter. On arriving home everything on him below the ribs was soaked. He does not feel unwell and has no pain. The bursting of the tumour rather gave him relief.

29th.—Better. Dulness, externally and posteriorly, begins at the level of the spine of the ninth dorsal vertebra, and extends for some inches downwards. The liver anteriorly is not below the ribs; takes his food well; abscess still discharging; matter is not at all offensive in smell.

July 12.—Weight to-day is 10 stones 5 lbs. Before the commencement of his illness his weight was 12½ stones; side looks smaller; opening is discharging freely a brownish red, grumous-looking pus; no pain, but some tenderness over the tumour.

August 2.—Side has been discharging daily a great deal since the last report, and is still doing so, but the opening in the skin has become very small, and seems to impede the free egress of the matter. He suffers considerable pain in the affected side, and it is in some parts very tender on pressure. Appetite has somewhat fallen off of late. It was therefore determined to enlarge the opening in the soft parts downwards, and, if possible, make a thoroughly dependent aperture for the exit of the matter.

4th.—At 3.30 p.m. to-day, Dr. Sims kindly put the patient under the influence of chloroform, and I then enlarged the opening in the skin and soft parts covering the ribs to the extent of about four inches in the downward direction. A great deal of matter had burrowed between the ribs and soft parts, and at the bottom of the incision—that is, at about the level of two inches above the crest of the ilium—I found an opening which led right into the liver-abscess, and from which a great deal of the same kind of brownish-red, grumous-looking matter escaped. There was an opening into the liver-abscess at the upper part of the incision corresponding to the opening made by Bowditch's trocar, through which a long bullet-probe could be passed for many inches, and through which alone I thought that the matter had been all along escaping. It appeared, however, that the abscess had been emptying itself through the lower as well as the upper opening, judging from the quantity of matter found between the soft parts and ribs. After allowing the pent-up matter to flow out as much as possible, I put an elastic india-rubber tube, of about the calibre of a crow-quill, into both upper and lower openings, and dressed the wound with lint. I then attached to the lower tube a long elastic one of about a quarter of an inch calibre, and thus drained the matter into a vessel placed underneath the bed. ℞ Extr. opii gr.jss., extr. hyoscyami gr.j., ft. pilula horâ somni sumenda.

5th.—Slept well. About half a pint of matter has drained away since the operation yesterday. I washed out the abscess with warm water, through first upper and then lower tube. Rep. pil. extr. opii et hyoscyami.

6th.—Slept well; appetite very good; about half a pint of matter has come away since last report. Abscess to be washed out every day with warm water. Rep. pil. extr. opii, etc.

7th.—Slept well; pulse 88, of fair strength; no pain; about half a pint of thick matter has been discharged since last report. Rep. pil. opii, etc., omni nocte.

9th.—Not so much discharge from abscess; matter is strongly tinged with bile; there is a good deal of discharge from wound in soft parts.

10th.—Improving; pulse 80; appetite very good; discharge from abscess is decidedly diminishing; tongue clean; bowels regular; is able to sit up in bed, but does not put on his clothes on account of the inconvenience of wearing the tube.

16th.—Improving wonderfully; appetite voracious; sleeps very well; bowels open; during the last day or two the dis-

charge has been much less in quantity, not averaging more than two or three ounces in the twenty-four hours. It is also altered in character. It is more like pus tinged with greenish bile; it is scarcely at all offensive; the right side looks decidedly smaller, more like the left side. The abscess has been syringed out every day regularly since last report, with much comfort to the patient. Takes no medicine.

20th.—Improving rapidly. On measurement both sides were equal in size, while on April 6 last the right side measured 17½ inches, and the left only 16½ inches. Left out upper tube to-day.

30.—Improving very much; wound discharges scarcely anything, and is contracting rapidly in size. I sent him away to the country to-day for change of air.

The patient was so much better on October 2 last, that he was able to go to sea in the s.s. *Bangalore*, and to attend to his duties as a sailor. The last accounts heard of him were from Marseilles, on October 28, and were most satisfactory. He said that he was feeling as well as ever he did in his life, and that the wound had quite healed up.

The above case is instructive in several points.

1. As regards the diagnosis of hepatic abscess. This was here not very difficult from the presence of the following symptoms:—α. I had attended the man only a short time previously for an attack of acute hepatitis which, in individuals who have been much in tropical climates, very often leads to suppuration. β. The great enlargement of the liver. γ. The occurrence of shiverings and subsequent sweatings, these however not being very marked. δ. The feeling, although indistinct, of fluctuation between the ribs pointing to the existence of fluid in the hepatic tumour. ε. The great pain he suffered in the swelling at all times more or less, and the great tenderness.

2. The next point of interest connected with this case is the argument it affords for opening the abscess at as early a period as possible. Had the man been able to survive the exhaustion consequent on the great pain he was suffering before the first operation, and thus allow the abscess to burst, there would have been as much likelihood of its breaking into the pleura or into the lung as into the stomach, or intestine, or externally. Death would most likely have followed, sooner or later, after the two first eventualities. Whereas by withdrawing the matter at an early stage externally a road was, as it were, made for the ultimate evacuation of all the pus formed by the abscess in the way most likely to terminate in permanent recovery.

3. Lastly, another and very important lesson gained by the experience of this case is the facility and safety with which the matter of a hepatic abscess can be evacuated by means of Bowditch's syringe. A large quantity of pus can be removed without a single particle of air gaining entrance into the interior, and thus all danger of decomposition of the contents of the cavity and subsequent irritative fever avoided.

A CASE OF POISONING WITH YEW BERRIES.

By A. H. NEWTH, M.B.

Poisoning by yew berries (*Taxus baccata*) is of so rare an occurrence, many persons being able to eat them with impunity, that perhaps a brief account of such may prove interesting to the readers of the *Medical Times and Gazette*.

E. C. C., a chronic lunatic, was found dead in the wards of the Sussex County Asylum, on the afternoon of September 24, 1870. On the morning of that day he had taken lunch with his usual heartiness, and returned to work; at dinner he complained of pain in the epigastrium, and vomited part of his food. As he was a very greedy man, eating all he could get hold of, this was not considered remarkable. At five o'clock, when the attendant went to rouse him to bathe, he was found sitting in a chair, with his head bowed down on his breast, quite dead. Suspicion of poisoning was awakened, by the motion passed into his clothes having been noticed to contain stones of yew berries. On inquiry, it was found that he had eaten some about 10 o'clock.

The following morning, Dr. Nicol, the late assistant Medical officer, and I, made a post-mortem examination. We found the body but slightly death-like in appearance (except some purplish patches on the shoulders and elsewhere), well nourished, and loaded with fat; post-mortem rigidity present. The lungs were healthy, lower lobes slightly congested. Heart substance normal and firm; coronary vessels turgid, especially on the left side; right cavities contained fluid blood, but no coagula. Blood of a peculiar dirty plum colour, very limpid, and staining readily.

Mucous membrane of mouth and œsophagus rather paler than natural; alimentary canal, elsewhere, somewhat inflamed throughout and distended with gases. Stomach pinkish externally, with dilated veins; it contained about four or five ounces of dark-coloured slimy matter. The mucous membrane was reddened and softened, with black congested patches here and there, more especially in the *cul de sac* and along the lesser curvature.

The duodenum was much congested, and softened to such an extent that it broke down with slight force; one or two berries partly digested were found in it. The large and small intestines were congested in patches at different parts, and contained much mucus and numbers of berries, mixed with half-digested food (bread and cheese). There was no appearance of ulceration.

At the lower end of the ileum we found a large mass of berries and fæcal matter; and on the mucous membrane of the intestine and lower surface of the ileo-cæcal valve there were numerous vesicles, corresponding to the contact of this mass. These vesicles were of various sizes, from a small point to that of a large millet seed; and were filled with a whitish fluid containing apparently granular corpuscles. They had somewhat the appearance of sudamina, but the outline of many were very irregular. Several were also observed in the stomach, but, being more confluent and less distended there, were not so noticeable.

The pancreas was of a dark colour, considerably congested and enlarged. The spleen had a peculiar jelly-like feel, broke down easily on pressure, and appeared very much congested and watery on section.

The liver and kidneys were also very much congested. The gall-bladder contained a dark-coloured, dirty, purplish fluid. The bladder was distended with urine. The membranes of the brain were thickened, passively congested, and in parts stained. Arachnoid opaque, with some considerable subarachnoid effusion. Brain rather watery; puncta sanguinea not very numerous; choroid plexus congested; fornix, crura, and optic thalami much softened.

Such were some of the appearances we noticed; if they have not been stated very clearly, I must ask to be pardoned for brevity's sake. It would be interesting to know how far the peculiar colour of the blood, the remarkable state of the spleen, and the vesicles found on the mucous membrane of the intestines, were due to the poison; and, further, to what extent these berries are really poisonous, if the narcotico-acrid properties reside solely in the stones, whether chemistry is able to separate the active principles, and if they could be employed in Medicine to replace other more expensive drugs.

Hayward's-heath.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE ROYAL ALBERT HOSPITAL, DEVONPORT.

The Royal Albert Hospital, Devonport, is a building of recent date, situated on the brow of a hill, overlooking the Hamoaze and Keyham Dockyard. In shape it is somewhat irregular, but all the wards are airy, clean, and nice. It is divided into two portions—the Government or Lock division, and the civil side; the former containing 160 beds, the latter but 60. In the Lock division, however, only 120 beds are now paid for by Government, as the cases admitted are much less troublesome than they used to be, and do not require such prolonged treatment. At one time as many as 150 were in-patients, but at the period of our visit only 33 remained; the number had been gradually diminishing. So that it is probable that Government will yet further reduce their subsidy. This division of the house is superintended by Mr. Milner Moore, who is responsible directly to the Government authorities, and has sole charge of the inmates. Close by are the premises used for inspecting the Devonport women, but this has no connexion with the Hospital. Mr. Moore told us he found tannin best for discharges set up by ulceration of the os, but if these were deep he used nitrate of silver and alum in powder, especially if the discharge were obstinate. For vascular ulcer of the os this gentleman prefers equal parts of glycerine and iodine

applied on cotton-wool, and allowed to remain for a time. The patients did not strike us as looking very ill, but of their condition there was no means of speaking from personal inspection, as, owing to the annoyance they have been subjected to by the opponents of the Contagious Diseases Act in force there, the authorities are careful to give them no grounds of complaint. It should be noted that all women coming here for the first time are segregated from the others, thereby enabling the chaplain the better to point out to them their sad state, and increasing his chances of rescuing them from their evil courses. In each ward was a placard, informing the inmates that if they believed themselves wrongly detained they might appeal to a magistrate. On the whole, they are said to be well-behaved.

The other portion of the building is conducted in the usual fashion, and contains one very nice ward for children. The main wards are not divided into Medical and Surgical, but into male and female. The cases were not very numerous when we visited the institution. Among others we noted a somewhat singular case of dropsy with albuminous urine following on what seems to have been latent scarlet fever. The patient was aged 28, and was a sailor. He had never been off work, but in February had a slight scarlet eruption, and, in six weeks after, his legs began to swell. Since that time he has suffered from dropsy. The rapid progress of the affection, if the dates be accurate, are striking. Close by we noted a case of typhoid of rather a mild character. The disease, we were told, is not very common in Devonport; they treat it with milk and brandy. Wood's operation for the radical cure of hernia is often done, especially by Mr. Swain. We saw a case, in the person of rather a young subject, which seemed to have done well.

Not far off was a man, aged 23, whose thigh had been fractured and, strange to say, there had been no attempt at reunion; it was then enveloped in plaster of Paris.

We noticed a very neat way of applying traction for relief of a diseased joint. A weight, with string attached and running over a pulley, was fixed to the ankle in the usual way; but, instead of using counterbalancing traction by means of a perineal band, the foot of the bed was merely raised until the inclination of the plane of the bed exactly neutralised the weight suspended.

A plan in use in Bristol is also very neat. A long straight splint is used with a piece projecting from its lower end at right angles, so as to stretch from one foot to the other. The splint and perineal band are applied to the sound side, so that the cross-piece comes to the foot of the affected side. Here is a pulley, over which runs a cord made fast to the foot on the one side and to a piece of elastic, such as is used for keeping doors closed, on the outside of the long splint. The perineal band fixes the splint, but leaves the affected side unencumbered, and the elastic band keeps up the requisite degree of tension, without interfering with a slight degree of motion.

In a female we noted a femoral hernia which had been strangulated and operated on, whilst on the other side of the body was an irreducible one. She was doing well, as had a case of femoral hernia occurring in a male shortly before operated on. A child, under the care of Mr. Swain, was suffering from nævus. This Mr. Swain treats in Fergusson's fashion, using a double thread.

In the eye ward we noted nothing very uncommon.

The number of accidents admitted is hardly as great as one would have expected, as those occurring in the naval yards are treated in the naval Hospital at Stonehouse. The following constitute the existing staff:—*Consulting Surgeons*—Joseph May, F.R.C.S., and Thomas Crossing, M.R.C.S. *Surgeons*—Frederick Row, M.D.; Richard John Laity, Esq.; Christopher Bulteel, F.R.C.S.; and William Paul Swain, F.R.C.S. *Resident Medical Officer*—Mr. Milner Montgomery Moore. *House-Surgeon*—R. S. Hudson, M.D.

The three junior officers, however, preside over a Provident Dispensary, which has been started in place of an out-patient department. The out-patient department existed, but was found to cost so much money that it was given over. This provident institution has the vice of most others—no proper arrangements for selecting fit from unfit cases.

MEDICAL COLLEGE HOSPITAL, CALCUTTA.

CASE OF VASCULAR TUMOUR OF THE SCALP — OPERATION — INJECTION OF TANNIN—RECOVERY.

(Under the care of Professor PARTRIDGE.)

CHINTAMONY, a Hindoo gardener, aged 40, admitted into the Medical College Hospital with a vascular tumour of the scalp on April 25, 1868. The tumour, congenital in origin, had been gradually increasing in size from the period of birth, though its progress had been somewhat more rapid for the last three or four years. At the time of his admission, it occupied a space corresponding nearly to the integument covering the right half of the frontal bone, encroaching slightly over the parietal bone, and extending below into the structure of the upper eyelid. There was no perceptible pulsation in the tumour; its bulk diminished on pressure, but it rapidly filled again when the pressure was removed. Both temporal arteries were enlarged and contorted, a condi-

well illustrated in the accompanying photographs.

In February, 1860, and again in May, 1863, cases of extensive vascular tumour came under my care in the Medical College Hospital, the details of which I published in the *Indian Medical Times* of Feb. 1, 1866. The first was a case of venous nævus involving the whole of the right cheek, and extending into the orbit, half of the upper lip, and the whole of the lower lip. The second was a pulsating tumour, involving the right auricle and the whole of the integument of the temporal region. In both cases I resorted to a plan of treatment first employed, I believe, by Mr. Haynes Walton in 1856, and in both cases the result was satisfactory. I determined, therefore, to adopt the same measures in the present case. The treatment consists of the consolidation of the tumour by the injection of a saturated watery solution of tannin. The instrument I now use for the purpose is a small brass syringe, such as is usually employed for preparing injected specimens for the microscope, one of the finer injecting nozzles belonging to the apparatus being filed to a sharp point to facilitate its introduction into the tumour. The injection requires to be repeated at several points, because the consolidation of the contents is limited to the immediate neighbourhood of the point of injection. In this manner, having previously placed the patient under the influence of chloroform, I treated the present case, the operation being performed on May 6. For three days the patient was restless and feverish; the tumour became of a bluish colour, and its temperature fell below that of the surrounding integument; there was, at the same time, a considerable amount of swelling of the right side of the face. About May 11 the tumour began to shrivel and assume a darker colour, and a clear line of demarcation became traceable at its circumference. By the 20th of the month, nearly the whole of the morbid growth had separated, leaving a healthy granulating surface beneath. At one point, near the centre of the wound, was a space about the size of a threepenny piece where the frontal bone was exposed. From this time the cicatrisation steadily advanced, interrupted only for a few days in the early part of June by a slight attack of malarious fever. The patient was discharged on August 13 with the wound perfectly healed, and with the temporal vessels reduced to their normal dimensions. Although the tumour partially involved the structures of the upper eyelid, there was

no distortion, and the patient, when he left, could close the eye perfectly.

The details of the following case of successful amputation at the hip-joint were published in the *Indian Annals of Medical Science*, No. 20, of January, 1867 :—

CASE OF SUPPURATING EXOSTOSIS INVOLVING THE LOWER TWO-THIRDS OF THE RIGHT FEMUR—AMPUTATION AT THE HIP-JOINT—RECOVERY.

A. N. G., aged 16, a Hindoo resident of Simla, in the Hooghly Zillah, was admitted into the Government Sukeas-street Hospital and Dispensary, Calcutta, August 15, 1866. He was found to be suffering from considerable constitutional irritation, resulting apparently from a large suppurating tumour in the right thigh. On inquiry and examination, it appeared that the tumour was one of several which had existed in a more or less developed form from the period of infancy, and which presented all the characters of ordinary exostosis. Of these tumours, besides the one suppurating at the time of his admission, and which, as already stated, was connected with the right femur, there were other minor growths connected with several other parts of the skeleton. Two such tumours were found upon the left femur, one on the right humerus at its upper part, one on the left ulna immediately above the wrist, and a few smaller ones on the ribs and on the bones of the legs. The majority of these growths, though gradually increasing in size, were still, comparatively speaking, unimportant; they gave rise to no sensation of pain, and were only somewhat inconvenient from their prominence and the consequent deformity. About a year before the patient's admission into the Dispensary, he had been a temporary inmate of the Medical College Hospital, under my colleague, Dr. Fayrer; the tumour on the thigh was then, according to Baboo Money Lall Dutt's recollection (who was Dr. Fayrer's assistant at the time), about the size of a large orange. From the Medical College Hospital, my patient, it seems, absconded, and returned to his village, where about five months prior to his admission under my care he was attacked with intermittent fever and enlargement of the spleen. During the attack the tumour in the right thigh became inflamed, increased rapidly in size, suppurated, and sinuses were formed, which have since that time been constantly discharging their icherous pus. At the time of his admission the tumour occupied about two-thirds of the thigh, involving principally its inner and anterior aspects. The general health of the patient was manifestly being rapidly undermined by the continual suppuration; although able to walk he was much emaciated, had a weak, somewhat fluttering pulse, suffered from daily attacks of fever, and complained of the pain in the growth seriously interfering with his nights' rest. For a few days an attempt was made to improve his general health by small doses of tincture of iron, good nourishing food, perfect rest, and small doses of morphia at bedtime. As the suppuration, however, continued to increase, as the fever persisted, and as he was decidedly sinking under the constant irritation, operative interference became imperative, and I therefore, on August 29, amputated the limb at the hip-joint. I was assisted in the operation by Baboo Money Lall Dutt (in Medical charge of the Dispensary), Baboo Kassy Kinkur Milter (my assistant at the Medical College Hospital), and my prosector, Mr. Zorab. There was nothing in the operation itself especially worthy of record. It was performed under chloroform—the ordinary operation, with an anterior and posterior flap; the femoral artery was controlled by the pressure of the finger in the groin. Very little blood was lost, and the patient stood the shock remarkably well. About eleven ligatures were applied, and the flaps were brought together with iron-wire sutures. Light dressing of wet lint and bandage was applied, and a moderate opiate administered. The tumour was examined microscopically by my colleague Dr. Ewart, and found to consist of fibro-cartilage and bone. When isolated it weighed ten pounds. The progress towards recovery was so steady and uniform that little remains to be recorded. For the first few days there was some slight febrile excitement; the temperature of the body was above the normal standard, and the pulse on September 1 rose to 132, but from that date gradually fell to the normal rate. The appetite throughout was moderately good, and his rest at night not much disturbed. On September 12 the last ligature, that from the femoral artery, came away; and on the 13th all the sutures were removed. Small collections of matter occasionally formed in the neighbourhood of the cicatrix; and for a few days—from September 9 to 12—he suffered from a slight attack of diarrhœa. A sinus on the outer side of the stump, communicating, apparently, with the acetabular cavity, closed finally about November 18; and by November 25 the whole wound was thoroughly healed.

Throughout the treatment the patient's strength was steadily supported by good nourishing food, and a moderate amount of port wine. For a short time cod-liver oil was administered; but as it gave rise to nausea it was discontinued, and quinine substituted. He was kept under observation until March 2, 1867, and was then finally discharged in excellent health and condition, the other osseous growths showing no tendency to increase.

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Medical Times and Gazette.

SATURDAY, OCTOBER 15, 1870.

MEDICAL SCHOOLS OF THE FUTURE.

There is an idea, reasonable or not, which seems to be firmly implanted in the public mind, that theory and practice are separate and incompatible pursuits, and that no man can serve both these masters. Hence, woe to any man who desires practice, if he becomes known—still worse if well known or celebrated—for excellence in any theoretical pursuit. We know for a fact that, some years since, a general Practitioner who was attending a patient of condition proposed a consultation. "Whom shall we call in?" said the lady of the house. "I recommend Dr. Blank, a very clever and rising man." "But does he see patients?" said the lady; "I thought he was a professor of physiology (whatever that may be) at some Medical school, and I did not know that he had time to practise." This anecdote represents a general fact. If a Physician is proposed for consultation who is disliked by any of the parties concerned, they need only call him a mere anatomist, physiologist, zoologist, chemist, or botanist, and his chance of earning a fee is as good as lost.

We do not deny that, during the earlier years of the Physician's or Surgeon's life, some attention to physiology, such as is necessary if a man is to teach it, is of great advantage. Sir Benjamin Brodie, in his most interesting autobiography,(a) refers to the advantage which his seven years' service as anatomical demonstrator in Windmill-street gave him in acquiring his "knowledge of diseases and Surgical treatment." He also speaks with gratitude of the good effects *on himself* of the four courses which he began to give at the Royal College of Surgeons, in 1819, from the chair of Comparative Anatomy and Physiology. "In the composition of my lectures," he says, "I had to go to the bottom of many things with which before I was only superficially acquainted, and thus I acquired much information which I should never have possessed otherwise, and which has been a source of interest to me ever since."

(a) "Life and Works," by Charles Hawkins, vol. i., p. 66.

"Few things," he adds, "have contributed more to my own improvement. . . It enabled me to detect my own deficiencies, to avoid hasty conclusions, and to be less conceited of my own opinions than I should have otherwise been." But he tells us honestly that "these lectures were *a frightful addition to his labours*. It was only by giving up many hours which ought to have been devoted to sleep that I was able to fulfil my engagements; and, even with this sacrifice, *I had not the satisfaction of knowing that my lectures were such as I could have wished them to be.*"

Now, Sir B. Brodie's position was precisely, in 1819, that of fifty young men at the present day—assistant-Surgeons to Hospitals, and demonstrators of anatomy, or lecturers on physiology, looking forward to pure Surgery as the business of their life—that from which they hope to get fame and fortune. They *cannot* commit themselves to a life of anatomical pursuit. They use their lectures on a branch of science as a ladder to lift them to a full Surgeoncy and plenty of practice; and when they have got what they wanted, they (like the the devil in the proverb) kick the ladder down. When they teach anatomy, some of them do their best to give it as Surgical a flavour as possible, and excite the smiles of their cleverer students by stories of astute diagnosis pronounced by them in marvellous cases of hernia or tumours, or of how they "were sent for one day by a nobleman," etc. They begin to angle for future consultations when their present students shall have ripened into Practitioners.

But such are not the men by whom anatomy as a science can be advanced. This can only be by men whose life is devoted to the work, and who pour forth knowledge fresh and abundant from the fulness of their hearts, not merely dribble out what they have "got up" the evening before by robbing themselves of necessary sleep.

Still, the important training which young men would get from the study of anatomy and physiology sufficiently to become teachers, all the benefits of information acquired and rendered precise, which Sir B. Brodie sums up, might still be enjoyed, even though there were in London one or two central colleges of science, which should afford enough honour and "emolument" to some of the ablest men of the day to induce them to devote their lives to the task of teaching science and enlarging its boundaries. There must be class-room lectures to teach the rudiments, to examine the students as to their progress, and to watch over them so that they may not risk an examination before they are reasonably sure to pass. Prosectors and demonstrators in the dissecting-rooms can never be dispensed with, and these offices will suffice for the improvement of the young Surgeons who hold them in the higher branches of anatomy.

We have dipped into Sir B. Brodie's life for the purpose of quoting his history and opinions in favour of our doctrine that London requires one or more schools or colleges apart from the Hospitals (and not so many as the eleven Hospitals which at present enjoy the monopoly), in which science, and especially those branches of it introductory to Medicine, shall be taught; and our present argument is that, unless a man can live by it, he will not give time for the original research by which science is enlarged. We say that the new schools would be no detriment to young gentlemen who make their anatomical and physiological lectureship a mere stepping-stone to practice, and would be much better for those who would do their work well and seriously as a life task. A scientific Professor of reputation, who could teach well, would draw crowds of the students who, under the present system, have no choice beyond their own Hospital walls.

We are sure that this must be done, and the sooner the better. One able Surgeon advocated it in his Introductory Lecture last week. "Every Medical student," he observes, "should pass an examination in Arts at least equal to the Matriculation of the London University." It would be a simpler plan to require this Matriculation, or an equivalent from some other university, and to discontinue the examinations held in Arts at the Apothecaries' Hall and College of Surgeons. Further," says Mr. Gascoyen, "every student should pass an examination in chemistry, botany, comparative anatomy, and natural philosophy (the Preliminary Scientific Examination of the University of London) before admission to a Medical school;" and lastly, Mr. Gascoyen commented on "the waste of time, money, and energy caused by the support of so many schools of Medicine, and advocated their amalgamation into two Medical colleges, where the Professors should be paid such incomes as would insure the best available teaching power, and attach them permanently to their chairs, whilst the several Hospitals should be used for clinical purposes, as is now done." We said so five years ago.

EXCISION OF THE KNEE- AND ANKLE-JOINTS IN CONSEQUENCE OF GUNSHOT INJURIES.

Of all gunshot injuries of joints, those of the knee are, if not actually the most serious as regards the patient's prospect of recovery, perhaps the most difficult and embarrassing to the Surgeon. The complicated nature of the articulation, the extent and intricate convolutions of the synovial sac contained in it, and the extreme difficulty of securing perfect rest, render injuries of this joint of an extremely hazardous nature. The difficulties of diagnosis, as to whether or not the joint has been actually opened by the projectile, are also very considerable. Bullets which appear to have traversed or penetrated the joint, may have been deflected so as not to have actually injured it. The escape of a synovial fluid from the bursa behind the ligamentum patellæ may contribute to the opinion that the joint has been penetrated when such has not really been the case. On the other hand, the joint may be presumed to have escaped penetration, until subsequent symptoms have exposed the error.

The essential importance of maintaining complete immobility of the limb, and the difficulty of effecting this object in military practice, appear to have deterred our Surgeons in the Crimea from more frequently excising the knee-joint. The same reasons influenced the American Surgeons during the late war, notwithstanding their anxiety to avoid the deplorable necessity of amputation in every gunshot wound of the knee-joint. The circumstances laid down by Legouest and Macleod as indicating the propriety of substituting excision for amputation—viz., that the injury to the epiphyses should be inconsiderable, that the patient should be young and robust, and that the requisite hygienic and Surgical resources for careful after-treatment should be available—are in an active campaign in the field so seldom met with in conjunction, that the opportunity which they might afford for the successful practice of conservative Surgery in such injuries hardly ever presents itself.

Only seven examples of excision of the knee-joint for gunshot injury had been recorded prior to the American war. Two were successful; one at Birmingham, under the care of Mr. Crompton, senior Surgeon to the General Hospital, being reported in this journal for May, 1861. The patient was 19 years old, and had received a charge of small shot in the left knee-joint on December 26, 1860, from a gun, at the distance of only a few inches. The shot passed into the inner condyle of the femur, breaking off a portion loose into the joint, and then passed downwards, grazing the inner side of head of tibia, and passed out. The operation was performed on the same day. A thin portion was sawn off the head of the tibia, and a corresponding thin portion from the condyles of the femur, for the purpose of making two flat opposing surfaces for anchylosis; nearly the whole internal condyle of the femur was then sawn off obliquely. The patella or its cartilage was not interfered with, nor was any portion of

the cartilage of the femur removed, except that which was attached to the portion of the condyles removed by the saw. The wound was closed by several sutures, and the limb was swung in a Salter's sling; wet lint was the only dressing applied. The progress of the case was favourable. On March 25 the limb was taken off the splints, and the patient could lift it from the bed without any assistance, and he got up for the first time. On April 1 he could walk with a stick, and bear half his weight on the limb. On April 5 he was discharged cured. The limb was from half to three-quarters of an inch shortened. The above case is of great interest, and is remarkable from the patella—contrary to the rules laid down by military Surgeons—not having been removed. Mr. Crompton states that, on the patient's discharge from Hospital, the patella moved laterally as freely as ever over the end of the femur. The other successful case occurred in the practice of Verneuil, and was reported in the *Gazette Hebdomadaire* of November, 1862.

The only instance in which the operation was performed in the British army during the Crimean war is included among the seven above alluded to. The case at first progressed favourably; most of the wound had healed by the first intention; but on the twenty-eighth day the patient was carried off by constitutional irritation, attended by vomiting and diarrhœa. A sacculated abscess was found at each side of the lower end of the femur, containing fetid and thin purulent matter, with a thin layer of exfoliation from the resected extremities of the bones. The patient belonged to the 77th Regiment. He was wounded on September 8 by a round musket-ball, in the left popliteal space. The bullet lodged in the inner condyle of the femur. The operation was performed on September 30, and belongs, therefore, to the "intermediate" class. The incision was semi-elliptical from condyle to condyle; about half an inch of the femur, a thin slice of the tibia, and the whole patella were removed. The interior of the joint was much inflamed, and an abscess had formed in the sheath of the rectus.

The case reported by Mr. Hutchinson in the *Lancet* of April 20, 1861, as having occurred under his care in the London Hospital, is also included among the seven earlier cases of the operation under notice. The patient was a young man of 20, through whose right knee-joint a charge of small shot (No. 6), discharged at a distance of about twelve feet, had completely passed, penetrating and lodging in the left leg, having carried before it a small splinter of bone from the right leg. The large vessels and nerves of the right leg were uninjured, but the joint was shattered. The patient complained of "numbness all over" in the left leg, but was able to state correctly what parts were touched. The operation of excision was performed on the same day, and the shots were at the same time removed from the left leg. The progress of the case was at first favourable, but on the morning of the seventh day the premonitory symptoms of tetanus supervened, and on the next day became fully confirmed, and the patient died about fifty-two hours after their commencement, and on the tenth day from the accident. It had been ascertained, on careful trial, that the spasms were not excited by handling the right limb—that operated on—but that the gentlest touch on any part of the other induced them. Up to the time of death, the progress of the parts concerned in the excision of the joint had been perfectly satisfactory; the limb was in good position—free from œdema; the soft parts where contused had cleaned, and were granulating healthily. The post-mortem examination revealed nothing requiring notice in the state of the excised joint; but in the opposite limb, the charge of shot was found to have passed close behind the posterior tibial nerve, the trunk of which was contused and ecchymosed. Two or three shot-cones were imbedded in its sheath, and there was much lymph effused about it. The peroneal nerve was uninjured. Nothing abnormal was found in the spinal cord. Under such circumstances, Mr. Hutchinson appears to have been quite justified in the opinion that the tetanus, which caused the death of the patient, originated in the injury of the nerves of the left leg, and not in the operation performed on the right knee-joint.

During the late American war, complete excision of the knee-joint was performed eleven times; in one instance with undoubted success, as the patient a year afterwards was able to walk with a cane, and three years afterwards continued in good health. The wound had been inflicted on October 22, and the operation performed on the 24th by Surgeon Bontecou, United States Volunteers. In another case the success claimed was so extraordinary as to suggest to Dr. Otis some doubts as to its authenticity. In this case the operation was performed by Acting Assistant-Surgeon J. Thorne, United States Army, on April 7, 1863. The patient had been wounded on December 28, 1862. The outer condyle and two and a half inches of the femur were removed by an oblique section, together with the patella and articulating surface of the tibia. No anæsthetic was used. A large amount of pus escaped, and the wound was full of shattered bone. The patient was much emaciated from copious diarrhœa, and at the time of the operation was nearly insensible; pulse 120, and feeble; skin dark and dry, like parchment. He was much prostrated after the operation, but on the next day revived. Nutritious diet and stimulants were freely given, and he continued to improve. Complete bony anchylosis resulted, with the leg bent about ten degrees. On December 8, 1863, he was discharged from the service, able to walk nearly as well as ever.

Even admitting the authenticity of this case, the fourteen deaths in eighteen recorded cases gives a mortality of 77·77 per cent., about 13 per cent. greater than that following amputation of the thigh in military practice. It must be admitted that the prospects of success are not very promising. But, at the same time, the operation can hardly yet be excluded from military practice in some of those rare instances presenting the favourable circumstances insisted on by Legouest and Macleod.

Professor Langenbeck is a decided advocate of the conservative treatment of gunshot injuries of the knee. He would neither amputate nor resect, except in cases where fragments of bones are actually severed, or where shattering of the bone-ends is complicated with considerable tearing or loss of soft parts. He directs the joint to be kept immovable by rigid plaster of Paris bandages, ice to be applied for the first three or four days, then lint dressings steeped in permanganate of potash or carbolic acid. During the Bohemian war of 1866, out of eighteen cases of gunshot wound of the knee so treated, eleven were cured; and in some instances the patients had been transported by railway without any ill results.

Resection of the ankle-joint was not once performed in either the English or French armies during the Crimean war. The operation is advocated by Langenbeck, who resected five times with only one death during the German-Danish war of 1864; and in the Bohemian war of 1866, eleven times with two deaths; all the operations were "sub-periosteal," and in the latter war all were secondary.

During the American war, of twenty-two recorded cases, eight were excisions of the tibio-tarsal articulation, and the remainder were nearly all ablations of portions of the tarsal bones; of eighteen terminated cases, twelve recovered and six died. Five of the fatal cases were reported by Surgeon Bontecou, United States Volunteers. They were all secondary operations—but were formal resections, and not mere gouging out of necrosed bone. The mortality in the terminated cases was at the rate of 60·60 per cent. The results are sufficiently discouraging. The conclusion arrived at by Dr. Otis—that the judicious use of the gouge and bone-forceps is admissible in gunshot wounds of the ankle-joint, but that formal excisions are rarely successful—confirms to a great extent the experience of Langenbeck as to sub-periosteal secondary operations.

A SWEET CITY.

The good people of the city of Lincoln are bestirring themselves—and, from all we can learn, not too soon—to put themselves into accord with the opinions of the day upon sanitary matters. Perhaps we ought rather to say that the more enlightened section of the community there is thus engaged; for, as has been observed to be the rule in every town where such matters are agitated, there is a clean party and a dirty party; and these two parties have had two grand field-days, during which each has maintained its cause before an inspector sent down from the Home Office to inquire into the validity of a complaint that the Board of Health has failed in its duty, inasmuch as, during an existence of four years and a half, it has made no proper provision for the sewerage of its district, or for an appropriate outfall. The Board of Health and the Corporation both maintained, in opposition to the memorial forwarded to the Secretary of State, that the charge of default of duty was most unfounded, and one worthy alderman of Lincoln asserted that the Corporation felt that their's was "one of the sweetest towns in the kingdom." It is not our intention to trouble our readers with the evidence adduced on the two sides, further than may be necessary to indicate a condition of affairs which is most disgraceful to a city admitted on all hands to be both wealthy and prosperous. Its "sweetness" must indeed be marvellous when we are told (and the statement was not contradicted) of a general drainage into cesspools and by open gutters, which in many instances receive their overflow, and of such a contamination of the subsoil water that where foundations for houses are dug, dirty water smelling of sewage oozes from the soil. No wonder there is not a spring of water in the city that is not poisoned. The evidence given by the officers of the Board of Health, who, it may be presumed, would not be likely to exaggerate, appears to us all-sufficient for our purpose. In December, 1867, Dr. Charles Harrison, the Medical officer of the Board, reported that such was the prevalence of fever that the town could not be considered in a healthy state, and that an analysis of its waters showed that the water used in Lincoln was wholly unfit for domestic purposes. Again, in January of the present year, he reported that the deaths from fever were considerably higher than during the two previous years, and that immediate attention should be paid to the state of the river into which, directly or indirectly, the sewage of the city finds its way, lest the inhabitants should suffer from an epidemic. The Board, then, could not plead that they had received no warning of the probable consequences of continued neglect. But the most curious and instructive evidence was that given by the surveyor of the Board. We will give his own words, as reported in the *Lincoln Gazette;* a local acquaintance with Lincoln is not necessary for their appreciation:—"I am surveyor for the Lincoln Local Board, and have been so for four years. I am familiar with the by-laws, and know the duties of a surveyor. I have no plans of the drains—none have ever been made." After saying that during the existence of the Local Board only four drains had been put down at the public expense, amounting to the sum of £200, he was examined as to some special points relating to the drainage of the town. This is a part of what he says:—

"There is no provision for the drainage of the Blue Coat School, which goes into the ground. I don't know where it goes. I have seen water running down Danes-gate, but I don't know where it came from. There is a drain in Potter-gate, which I *think* brings the slops down the New-road. There is another sewer on Greestone-stairs: the contents of that sewer runs down the north side of the New-road on a surface gutter. There is something not very agreeable from that gutter, and I was told that it came from a water-closet of a house in the vicinity, but on searching the house referred to, I could not find that such was the case. I do not know of any other drain in the upper part of Lincoln, or in East-gate. There are some large houses and schools in that district. Mr. Mantle and Mr. Shipley have schools there, and there is a young ladies'-school. I should think you would be wrong if you considered that district would represent a fourth of the rateable value of the city, even if you were to take it from the east end of the Castle to the east of Newport, and from the end of Bail-gate to the Terrace. I don't know of any drain for that district but what there is on the surface. I believe that the Local Board was requested to make a drain at Mr. Mantle's, as he had fever, but they did not do so. The filth gets away as best it can. The observation as to the absence of any but surface draining would apply to Nettleham-road and the locality. Langworth-gate is drained by open channels into the ground. I don't know where the sewage goes. There is no drain to carry off the refuse. Greetwell-gate, near Mr. Jekyll's house, has a surface drainage. I have seen that place dry. Part of the sewage runs into the ground, and the rest into the ditches, and there it dries up; the smell is sometimes offensive. I don't think the drainage going into the grounds would improve the springs of water, but we don't want many springs, as we have got plenty of water-works. Mr. Shipley has complained of the want of drainage in his part of the town, but nothing has been done. My attention has been called to a 'river' in front of the top of the hill, near Mr. Williams's house. That stream, or whatever else it may be called, drains from a kitchen, scullery, bath or lavatory, and flows on until it gets to Mr. Williams's house, and then it goes into the ground. The attention of the Local Board was called to the matter about four months ago, but nothing—beyond the cleaning out of the ditch—has been done up to this moment. There is no drain to take the sewerage from Lindum-terrace or the Grammar School-house in that part of the town. I believe they have all cesspools. Mr. Fowler, the master of the Grammar School, has complained of bad smells. I recommended him to ventilate the cesspools, in order to get rid of the effluvium arising from them. There was a leakage of one cesspool, and no drain to carry the sewage away. There have been similar complaints from Miss Bacon—who keeps a large ladies'-school—and I suggested to her the propriety of having the place examined. There was no particular smell. With a slight exception of a covered gutter, there is no drainage for the Steep-hill or St. Martin's, and the drainage flows out into the High-street. All the drains from Newland empty themselves into Brayford. A drain in Guildhall-street brings the water from Asylum-lane and Hun-gate. There is a drain down the High-street, which is discharged under the High-bridge, and has proved very offensive, as several water-closets are emptied into it. There are about 700 children at the Wesleyan Schools in Rosemary-lane. The overflow from the cesspool is emptied into the Witham, as in the case of all the other drains spoken of on the west side of the Stamp-end Lock. On the south side of the Witham there is a drain from the Corn-hill, which carries a good deal of drainage from the water-closets. The drain from Tentercroft-street goes into Sincil-dyke; the drain from Monson-street does the same. Queen-street is not drained at all. The sewers all down High-street will go into Sincil-dyke. Salthouse-lane (near High-street) drains into the Upper Witham. There is only surface drainage for Alfred-street. Anchor-street goes into the Upper Witham. So far as there is any drainage for that part of the town, it falls either into the Sincil-dyke or the Upper Witham. There is no drainage for the Dale-street ditch, which receives at a distance of from five to twenty-five yards the refuse of the houses. Nothing has been done by the Lincoln Local Board to provide any outlet for it. I don't think the Sincil-dyke is in a pure condition. (Laughter.) I must confess that it is foul. A cesspool fresh opened would be fouler than the Sincil-dyke; after the cesspool had been opened a while it might not be so foul as the Sincil-dyke. I cannot say that the river Witham is worse than the Sincil-dyke, but it is not by any means sweet."

The defence set up by the Board was the usual one in such cases. They had only been in existence four years and a half. The great expense of public and private drainage works had to be considered, and the question how it was to be met; and finally, the Board had simply been taking time to consider which scheme of drainage was the best; authorities differed, and how could the Board decide? So "the sweetest town in the kingdom" ought to be satisfied with its delicious odours; and if people die of fever they should "rest and be thankful." It is worthy of remark, as showing the conservative feeling in this ancient city, that while the memorial to the Home Secretary was signed by sixty-six of the inhabitants, a counter-memorial addressed to the Local Board obtained 2600 signatures. "The Inspector: 'I don't know what the memorial wants.' Mr. Tweed: 'It wants things to remain as they

are.' The Inspector: 'I am quite content with that.'" All honour to the courageous sixty-six, say we; and to similar minorities in some other towns we could name, we say—go and do likewise.

THE WEEK.

TOPICS OF THE DAY.

That the Medical officers of the Prussian army have taken their fair share of the dangers of the battle-field is proved by the lists of Prussian losses published by the Government. The list of Prussian killed and wounded down to August 18 records a loss of 7 Surgeons and Hospital attendants killed, and 35 Surgeons and 5 Krankenträgers wounded.

The letters of Surgeon-Major Wyatt, of the Coldstream Guards, who is now in Paris, which have been published in the *Times*, although, perhaps, not written for publication, are of great interest. Surgeon-Major Wyatt is an old Crimean campaigner, and his report of the state of things in Paris may be taken as that of an experienced and impartial witness. It is clear, from the tenour of his letter, that our National Aid to the Sick and Wounded Society, in whose hands such enormous sums of money have been placed, would have done well to have formed a large depôt for stores in Paris as well as on the Rhine, under the charge of a member of their committee. Even in Germany, if we are to believe unprejudiced witnesses, it seems that many of the efforts made by the National Society have been marred by want of system, and that, however usefnl we have been, we have met with indifference or ingratitude from those whom we desired most to assist. But there can be no doubt that hitherto the Society has rendered their principal assistance to the Prussians for the care of their own wounded and their wounded prisoners—a breach of nentrality which may fairly be pleaded against the charge of furnishing contraband of war to the French. On the whole, Surgeon-Major Wyatt writes by no means despondingly of French chances in a seige. He describes the *physique* of the Garde Mobile as admirable. He would be "very glad to see such recruits in the Guards—stout, sturdy lads of 5 ft. 10 in., with good broad shoulders and expansive chests, and legs to match. I watch them by thousands." The veteran Nélaton is in Paris, and devoting his skill to the service of his country. Surgeon-Major Wyatt writes:—

"My friend Dr. Chenu, who was formerly attached to the French head-quarters in the Crimea, presides over the executive Medical arrangements, without any interference from the Military Intendance, and the Medical service has the supreme advantage of M. Nélaton's surveillance. He combines the rare association of sound jndgment with exquisite practical manipulation, and although a veteran in our Profession, is still replete both with resource and research. He was good enough yesterday to ask me to accompany him to witness a very bold but successful treatment applied to relieve the oppressing effects of a gunshot wound of the chest, into the cavity of which a Prussian bullet had lodged, penetrating in its transit one of the poor fellow's lungs. He was gasping for breath and in great agony. It was a moment for action, and, as the bullet could not be detected, a novel plan was adopted, which not only produced great relief, but resnlted in the foreign body being detected this morning in the back, when it was at once cut down upon and extracted, demonstrating altogether about as brilliant a piece of Surgery as I ever saw performed or heard of."

In Mr. Wyatt's second letter, dated October 1, he gives some details of the condition of the wounded who were brought into Paris after the affair of Bas Meudon, on September 30:—

"The cannonade commenced abont 4 o'clock on Friday morning, and we could not for some time imagine what was the nature of it. However, as I was thinking about going to the field and making the necessary preparations, I met several ambulance waggons full of wounded coming to the military Hospital, to which I returned, and remained there until past noon, the arrivals being incessant all the time.

"I remarked that the wounds were principally in the upper part of the body, and nearly all from the effects of the needle-rifle bullet, which certainly is a most destructive missile, comminuting the bones in every direction, and rendering operations necessary, which, from the exceeding smallness of the external wonnds, would not appear to be so upon snperficial examination; hence the greater risk of attempting to save a limb, as I have seen in several instances to day, when we have been obliged to resort to amputation from the snpervention of acute mortification. Of course, greater efforts can always be made to follow a conservative or preservative line of action in Hospitals permanently established, when the wounded are not subjected to the liability of subsequent locomotion, than in temporary field ambulances.

"I passed the afternoon of Friday and the whole of yesterday at the Palais d'Industrie, where they received 211 wounded, the Val de Grâce counting 192 of all ranks. It was the first occasion on which any real pressure has been pnt upon the International Society's central establishment, which has risen to the emergency with considerable success. This is not a moment to criticise, but I may safely say this much—that I consider the large military Hospitals permanently established here should be first filled before the private and international ambulances are occupied, and that one system should co-operate with and assist the other without too much attempt at exclusive action, otherwise I venture to predict very considerable inconvenience will arise.

"Many of the wounded were shot quite early in the morning, and did not reach Paris till quite late in the evening. They were nearly all in a condition which we call 'shock'—cold, trembling, and sometimes almost pulseless, which is a condition well known to military Surgeons, requiring warm beverages to assist in producing sufficient reaction for an examination of their injuries—the consequence of which was that most of the operations were not performed until yesterday, which was indeed a bloody day, and reminded me of Crimean associations. The wonnded here during the siege will have many very important advantages which they could not possibly obtain in the movable field ambulances, not the least of which will be the benefit of every species of modern contrivance applicable to their individual circumstances; and I have already seen many novelties, suggestions of practical importance, which I should be glad to be able to procure hereafter."

Mr. Goschen has consented to receive the joint Committee of the British Medical Association and the Poor-law Medical Officers' Association on the subject of the registration of disease on Monday, the 17th inst. The names of Dr. Budd, of Bristol, and of Dr. Trench, of Liverpool, have been added to the joint Committee. The registration of disease is now acknowledged, by all well-informed sanitary reformers, to be a national desideratum. It can only be obtained through the agency of an improved public Medical service; and the fact that the Dispensary system of Ireland provides the requisite machinery for registering disease, affords an argument which must not be forgotten by those who are to advocate a reform of the English parochial Medical service on the Irish system in the coming session of Parliament. We are glad to be able to state that, in answer to the request we made to our readers, some valuable evidence, in proof of the heavy burthens which the present system of Medical relief has thrown upon the ratepayers, has been received by the President of the Poor-law Medical Officers' Association. We have no doubt that more will be forthcoming, and we would again insist upon the importance of demonstrating to Parliament and to the nation that it is not to their interest to starve the Poor-law Medical Service. The Legislature is not likely to listen to mere declamation on the hardships of the Poor-law Doctors, and the scanty Medical attendance afforded to the sick poor. But if it can be shown that a more efficacious Medical service implies a decrease of pauperism and a diminution of poor-rates, we shall speedily have to welcome a reform which the constant increase of pauperism under the present system will render imperative.

At the meeting of the Council of the Royal College of Surgeons, which took place on Thursday, the expiration of Mr. Skey's term of office in the Court of Examiners was announced, and the resignations of Sir W. Fergusson and Mr. Quain of their Examinerships were accepted. At the next meeting of

the Council, which we believe will take place on Thursday, October 27, these vacancies will probably be filled up; and it remains to be seen whether the Council will carry into action their resolution lately passed, and will elect three Examiners who are not and have not for the past year been Members of the Council. We hear that Mr. Curling is not likely to allow himself to be put in nomination on the present occasion for one of the vacant Examinerships, on the ground that, having taken an active part in the recent discussions on the constitution of the Court of Examiners, he prefers to defer for a time his own claims.

The Home Secretary has made an example of the unhappy woman Margaret Waters, which it is to be hoped will not be lost on the trade of baby-farmers or on the fathers and mothers of illegitimate children. We allow that the sentence was in accordance with the evidence, and was in the strictest sense just, but its execution bears the aspect of unparalleled rigour, when it is regarded in the light of the previous apathy of the Government and of the police. The Government, in a fit of spasmodic sternness, has made a public example of Margaret Waters. We would advise them now to turn their attention to our manufacturing districts, where children are put out during the day to be poisoned with syrup of poppies and quack carminatives, and to be starved on indigestible food, whilst the mothers are working as factory hands. One form of slaughter of the innocents will, it is to be hoped, be checked by the terrible punishment which has overtaken the baby-farmer; but there are other plans of destruction which are closely allied, and which are carried on with impunity in broad daylight in our most crowded centres of population. If our laws are framed to punish the one, cannot society and Parliament interfere to prevent the other?

Mr. Watkins, one of the St. Pancras guardians, has lately preferred some charges against Dr. Hill, the Medical officer of the workhouse, in reference to vaccination. Mr. Watkins proposed that a special inquiry should be held by the guardians, and that Medical witnesses to give evidence on certain points should be summoned, and their expenses paid. The Poor-law Board, on being applied to, however, reminded the guardians that they had no legal power to summon witnesses or to defray their expenses, unless the inquiry were to be instituted by the Poor-law Board and conducted by one of its inspectors. The guardians, at the meeting at which the communication from the Poor-law Board was received, decided by a majority not to apply to that Board to institute an inquiry by an inspector, and so the matter falls to the ground. We believe that Mr. Watkins's principal charge against Dr. Hill was that he had performed too many re-vaccinations—an error at all events on the right side. Mr. Spencely, one of the guardians, in the course of the discussion said:—

"If these charges were being made continually, it would be dangerous for any Medical man to hold office even for a day, more especially, as in this instance, where he believed they were unfounded."

We are glad to add that the majority of the meeting seemed to agree with Mr. Spencely.

A contemporary asserts that six women are dissecting a female subject in the same department with male students, in Dr. Handyside's dissecting-room, in Edinburgh. The statement is so incredible that we can hardly believe it. Are there no Scottish gentlemen in Dr. Handyside's class to protest against such a proceeding? We are glad to publish a letter from Dr. Barnes conveying the information that the authorities of St. Thomas's Hospital Medical School have declined to admit women to their classes and dissecting-rooms.

Several chemists of repute are spoken of as probable candidates for the Lectureship on Chemistry at St. Bartholomew's, vacant by the death of Dr. Matthiessen. Amongst others, Professors Roscoe and Vernon Harcourt, Mr. Heaton, and Dr. Maxwell Simpson are named.

The subject of competition for the Fothergillian Medal in 1871 is left to the choice of the writers, the only limit being that it shall be some subject in Obstetrics, including the diseases peculiar to women. Croup is the subject selected for 1872. If there be many competitors for the prize of the coming year, we think that the adjudicators may have some difficulty in deciding—in fact, it is difficult to see on what grounds they are to adjudge the prize. Surely it would have been better to have limited the candidates to, say, half a dozen allied subjects.

THE MIDDLESEX HOSPITAL.

We lately inspected some alterations which have been adopted in the post-mortem theatre at this Hospital. The conventional benches, which formerly occupied two-thirds of the room, have been removed, so that the students—no longer standing above as mere spectators—have every encouragement to handle the morbid specimens for themselves; and the space thus gained has allowed room for another slate table, and a smaller table for microscopic work. A large slate has been furnished for tutorial purposes, giving the normal weights of the male and female viscera, and ample space for diagrams. Above each post-mortem table a supply of water is conducted by means of a flexible tube terminating in a rose spout, so that the specimens can be well washed without removing them from the table. These improvements, together with the elaborate ventilation arrangements, which have long been adopted, render this post-mortem theatre one of the most complete and convenient we have had the pleasure of inspecting; and it is due to Dr. John Murray, the Medical registrar and pathologist, to state that the various alterations were mainly carried out at his suggestion.

SANITARY AFFAIRS AT LIVERPOOL.

Dr. G. Buchanan visited Liverpool last week for the purpose of inquiring into the means for limiting the present epidemic of relapsing fever. As the result of an interview which he had with the Health Committee, that body adopted two important resolutions:—Firstly, that all parochial and dispensary Medical officers be requested to send in a list every morning of all houses requiring disinfection, and that the Medical Officer of Health give daily the necessary instructions for disinfecting all houses of which such notice shall have been received; and, next, that whenever compulsory removal of patients to Hospital should be insisted on, the expense should be borne by the Corporation. At one of the meetings of the Health Committee, Dr. Trench, Medical Officer of Health, complained of the way in which cases of overcrowding were treated by the justices. He instanced a case where sixteen persons slept in one room—and, on its being brought before the magistrates, it was dismissed—and remarked that he could tell beforehand what the decision would be if he were informed of the name of the justice who would hear the case. This method of administering the law may do much to explain the present sanitary condition of Liverpool.

AID ON THE BATTLE-FIELD.

Professor Esmarch's "First Dressing on the Battle-field" is a pamphlet of a few pages, containing a concise description of the many forms in which our old familiar friend—a three-cornered handkerchief—can be applied as a bandage on emergency. So high is the Professor's opinion of the utility of such an appliance, that he advises that every soldier should carry one on going into action—not in his knapsack, which he frequently loses or throws away, but in his breast-wallet, which he never parts with. Accompanying the pamphlet is a piece of stout calico, of the size and shape recommended as most generally useful, and on it is clearly stamped a well-drawn group of wounded soldiers applying to one another the bandage in its various forms. Professor Esmarch's suggestion that

every soldier should be taught how to use such a bandage is a good one, and we should like to see it carried out in our own army. To civilians, also, living in remote districts, such knowledge and skill would be very desirable. The pamphlet has been translated by Dr. Guy, Deputy Inspector-General of Military Hospitals, and Medical Director of the National Society's Ambulance, now about to proceed to the seat of war. Staff Assistant-Surgeon A. Moffitt, Instructor of the Army Hospital Corps at Netley, has also published, under the patronage of the National Aid Society, a small work, embodying his lectures to the men of the Army Hospital Corps as to the best means of succouring the wounded on the field, and removing them therefrom. The book is simply and clearly written, and well illustrated by diagrams and drawings, and will no doubt be most useful as a text-book for the men for whom it is intended, and indeed for all lay attendants on the victims of war. It also occurs to us that regimental Medical officers, by making use of it, could easily, and with great advantage to the service, instruct a selected number of the men of their respective corps in the various duties of the *krankenträgers* of the Prussian army.

IRRIGATION AT RICHMOND.

At a special meeting of the Select Vestry of Richmond, held on the 4th, the drainage question was discussed at considerable length. Dr. Warwick opened the debate in an able and exhaustive speech, in which he discussed the various systems of dealing with the sewage of towns, and stated that only two were at all effectual—the downward intermittent filtration, and the irrigation processes. He was in favour of the latter, and combatted the arguments used against it on the score of its alleged insalubrity, etc., and proved, by documentary evidence, that in places in which the plan had been carried out the health of the inhabitants had not suffered. He showed that under proper management it was more economical than the other plan. After a long discussion, the subject was referred to the Sewage Committee, with instructions to report thereon to the Vestry.

FROM ABROAD.—INTRA-UTERINE INJECTIONS.

At one or two recent meetings of the New York Medical Society, an interesting discussion took place on the subject of "Intra-uterine Medication," this ensuing on a paper upon the subject read by Dr. Nott. He stated that he had of late paid much attention to the chemical effects produced on bloody and other uterine discharges by the agents usually employed in topical treatment of affections of the uterus. A portion or a whole of such substances becomes neutralised and rendered inert. Even chromic acid may be injected into a uterus full of blood, and pass out without irritating the vagina, which is yet very sensitive to the action of this substance. The favourite modes in New York of applying any of these substances—by means of a probe covered by cotton; or that by Dr. Sims, in which a glass rod, without the cotton; is used—must, in most cases, be followed by mere negative results. For efficient action in the uterus, this must be first cleared out by suction with a syringe, or a weak solution of muriatic acid or of common salt may be required to remove the discharge when tenacious.

As the result of his experiments, Dr. Nott finds that the best means of controlling uterine hæmorrhage is to inject iodine and plug the cervix with cotton and persulphate of iron; and in disease there is no potent remedy of which the uterus is so tolerant as iodine. Even Churchill's tincture, undiluted, is well borne where the most cautious use of nitrate of silver would give trouble. In intra-uterine treatment we should first test the tolerance of the organ with tepid water only, and then with a very weak solution of iodine. Though commonly almost destitute of sensibility, under some conditions the uterus becomes as sensitive as inflamed periosteum or peritoneum; but even then it can usually be educated to bear injections of the requisite strength. One source of danger in uterine injections has been too much overlooked—viz., "obstruction to the return current by coagula;" and this may also go to explain some of the contradictory results obtained by some gynæcologists. To obviate this inconvenience, Dr. Nott employs a double canula. The injecting tube is very small, and runs within the return tube, which is four or five times its size, having a very large eye, so placed as to be kept clear by the injected stream. Even with this apparatus it has been sometimes found impossible for the return current to take place, owing to the rapid coagulation produced by some of the solutions employed.

Dr. Fordyce Barker observed that it was especially fitting that a full discussion of the subject should take place in a city where "intra-uterine medication might almost be said to have originated, and where it had been pushed to a more audacious extent than anywhere else." His own special favourite substance for the last fifteen years had been the sulphate of zinc, which he especially employed in those more or less trying cases of menorrhagia, so frequently associated with the climacteric period, and unconnected with prominent organic disease, although the uterus is commonly enlarged. For excessive flooding in such cases, he employs a paste made of 1 oz. of the sulphate with 2 drachms of glycerine, which can be easily introduced through a canula the size of Simpson's sound. From 3 to 5 grains of this paste is thus introduced, one or two applications sufficing; the hæmorrhage commonly not recurring, and no unpleasant symptoms resulting. Dr. Peaslee considered that the "cautions remarks from such a Nestor of the Profession as Dr. Nott must have had good effect upon some of its younger members, who, I fear, are led on too rapidly and recklessly by the brilliancy of intra-uterine medication." He believes that it should be resorted to in comparatively very few cases; and what these cases are, as well as what substances should be used, are far from settled—the practice at present being merely empirical. Dr. Peaslee has found iodine, strong solution of persulphate of iron, and saturated solutions of alum or of tannic acid safe and effectual agents, and therefore has an objection to so powerful a substance as chromic acid. Dr. Emmet, on the contrary, who has used this last substance more than any other person—and that for the last fifteen years—speaks highly of its efficacy. With equal weight of water it is no stronger than nitrate of silver, while it does not, like this, harden the tissues after repeated use. Dr. Kammerer said that he employed uterine injections daily; the cases, however, in which application need be made to the uterine cavity being rare, compared with those in which the canal of the cervix requires such treatment. Dr. Kammerer, however, always injects tepid water into the cavity of the body as a means of cleansing it, even when he intends only treating the canal of the cervix. It is chiefly in cases of flexion, especially anteflexion, that the cavity of the uterus is often found dilated with mucus, which is, however, not usually thick, but clear, transparent, serum-like. "I am in the habit of dilating the canal; and I frequently observe that, after cleansing the cervical cavity up to the internal orifice by a very small sponge or bits of cotton, that, on dilating the internal orifice, a teaspoonful or more of clear, serum-like fluid flows out, evidently from the cavity of the body. In these cases of catarrh of the body, I have often insisted that it is extremely important to keep the canal wide. These cases often improve by simple dilatation of the internal orifice, repeated once or twice a week for a certain length of time. Gradually the hypersecretion diminishes; sometimes with no local treatment at all. But sometimes I have found that the contents of the cavity were not simply serous, but mucous and purulent; and in these cases I invariably resort to intra-uterine remedies." Dr. Kammerer related two cases in proof of the great danger of

the practice recommended by Courty of leaving portions of the solid stick of nitrate of silver to dissolve *in utero*. Dr. Whitehead has found, in slight cases of endometritis, a concentrated tincture of iodine (Dr. Budd's formula—iod. gr. lxxx., iod. pot. ʒss. sp. rect. ʒj.) very useful, applying it on a cotton-wrapped probe, which has been conveyed up to the fundus. He has met with ill-effects from the use of fused nitrate of silver, not to mention the constriction of tissue its frequent application gives rise to. Dr. Jacobi stated that he had employed undiluted carbolic acid in many cases without any ill-effects resulting. He thinks that the action of nitrate of silver is too localised.

At an adjourned meeting, Dr. Byrne observed, that after a long experience in the injection of powerful caustics into the cavity, he had abandoned their use, having of late employed mild substances, such as solution of sulphate of soda, sulphurous acid, tannin, etc., which easily return from the uterus if a proper catheter be employed. He had also become fully convinced that in all cases of very troublesome intra-uterine affection there is some constitutional dyscrasia; and that no topical treatment is of permanent avail without keeping this in view, and giving the most careful attention to constitutional and hygienic measures. Dr. Gaillard Thomas stated, with all the authority of his large experience, an opinion which will certainly command assent in this country—"Now, my impression is that intra-uterine injections do not constitute an advance in the treatment of uterine disease; that they have done and are going to do a great deal of harm; and that although they are popular, their evil results will cause them, after a more thorough trial, to be discarded." After narrating some cases in which fatal mischief resulted, he continues:—

"Now, these are selected cases, I allow; and it is by no means a final argument against any procedure that such selected cases should speak badly for it. The question is very different, however, from that in such a capital operation as amputation of the neck of the uterus, for example, which you enter upon expecting, and the patient and her friends expecting, that there is at least a chance of a fatal issue. Such an operation is justifiable, and often imperative, as offering the only chance of life, though it may be a very small one. But if the woman be suffering from some slightly annoying affection, she does not expect to die from the routine procedure you may resort to for her relief, and you have no right to employ any means attended with such hazard. Again, I see no necessity for intra-uterine injections. My impression is that the uterus rarely contains over a drachm of fluid, and that it is an error to represent it as often containing a considerable amount of putrescent discharge. But if it have within it such fluid requiring removal, dilate the cervix and replace the organ, if ante- or retro-verted or flexed, and what is to hinder the fluid from coming out? The dilatation itself will accomplish much. Then, in addition, if necessary, give ergotine or ergot and general tonics; and, if required, introduce the cotton-wrapped probe. Every one knows the difficulty of removing the plug of viscid mucus from the cervical canal. For this purpose I keep a supply of little bits of sponge, not larger than my finger's end, which, being wet and squeezed, wipe the canal nicely, and then are thrown away. This done, I see no difficulty in passing up the probe armed with cotton, and painting over the whole internal surface. For myself, I never use intra-uterine injections, even for the hæmorrhage of abortion."

Dr. Thomas confines his objections to injection, not extending them to the use of intra-uterine medication by means of the brush or probe.

Case of Variola Ten Days after Successful Vaccination.—An infant, 27 days old, having every appearance of health, was brought to the Hospice des Enfants-Assistés on February 28, and vaccinated next day. On March 8, on account of the perfection of the pustules and the vigour of the child, twenty nuns, fifteen nurses, and a ladies' boarding-school were all revaccinated from it. The next day an eruption appeared, which proved to be variola, of which the child died on March 13. None of those vaccinated from it took small-pox. In several the revaccination succeeded.—*Revue Méd.*, September 3.

THE TWELFTH ANNUAL REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL.

The annual report of the Medical Officer of the Privy Council has recently been published, and it, as usual, contains much that is of interest to the public as well as to the Profession. The account of last year's proceedings of the department are given under the following heads:—

1. The special diseases of the year 1869.
2. The common sanitary wants of the population, and especially as regards nuisances removal and water supply.
3. Public vaccination.
4. The practice of pharmacy.
5. The constitution of the Medical Profession.
6. Scientific investigations in aid of the practical work of the department.

Of the last mentioned material contained in the appendix, three papers are especially attractive—Dr. Burdon Sanderson on the Intimate Pathology of Contagion, Dr. Thudichum on the Chemistry of Disease, and Dr. Thorne on the Effects of Milk from Cows Suffering from Foot and Mouth Disease.

Dr. Sanderson's paper does not contain a very great deal which is original, but it presents an admirable *resumé* of what has been done to elucidate contagion; and he has filled up little gaps and made clear certain intricacies heretofore existing. First, he sets himself to work to prove that the contagious material is neither gaseous nor soluble in water, but constituted by particles of excessive minuteness. For an illustration of the mode in which a contagium works he falls back on digestion, where we see pepsine soluble, yet producing no turbidity; incapable of subsidence or filtration, yet wholly indiffusible; capable, too, of transforming albuminoid material of whatever kind into a uniform kind of product. Vaccine is in many respects similar. If vaccine be examined by high microscopic powers, as Dr. Beale has shown, rounded particles are found to float in it, along with bodies similar to white blood- or pus-corpuscles. If, now, vaccine be allowed to remain in perfect quiet, these large bodies—the so-called leucocytes—will gradually sink to the bottom of the vessel. Thus collected, they are shown to have no influence after inoculation beyond that produced by any similar organic product.

To advance a step, vaccine may further be placed in immediate proximity to a quantity of water—as, for instance, when a layer of water is delicately and judiciously superimposed to a layer of vaccine in a fine tube. As gases tend to diffuse and commingle, so do fluids thus placed; and after a time it is found that the layer of water has acquired some of the elements of vaccine, even to albumen, but it has no power to produce vaccinia; the contagium is not, therefore, diffusible. But if the water and vaccine be stirred up together, the mixture retains its power of infection, not so as to produce a feebler result, as one would expect were the two exactly commingled, as in the case of a strong mineral acid rendered dilute; but in a certain number of cases no result followed; in certain others the ordinary consequences of vaccination indicated that the virus was unequally diffused through the water, probably the result of its being made up of particles. If, therefore, the contagious power rests in some minute bodies of definite form, those already referred to as existing in vaccine might be considered the type of such means of contamination. This general conclusion is further borne out by the researches of Chauveau, of Lyons, on small-pox, sheep-pox, and farcy.

It having thus been settled that these minute particles are most probably the means of contagion, it remains to be seen wherein the specific power rests. Two views may be adopted: either these minute particles are embued with a specific poison of a liquid character—which it is hard to believe—or, to depend for

this power on something inherent in them, without which they could not exist. The one is the chemical, the other the vital theory of infection. Thus far, analogy certainly favours the latter assumption; but, going beyond, we are lost in a sea of mystery. Hallier and others have attempted to fathom this by invoking the aid of the phenomena of fermentation. In this process certain fungi are developed *pari passu* with the product of fermentation. Now, where putrefaction is going on, something similar is observed; exceedingly minute spherical bodies there abound, which under certain circumstances lengthen out, and form what are called "bacteria," or, as many now prefer to term them in both stages, "microzymes." Can these be traced through their various degrees of development, starting off from one common seed, but maturing into bodies of very different kinds, each producing putrefaction or organic changes, also very diverse? Hallier's theory of the origin of cholera in a rice fungus is, we fear, doubtful. At best, even now, it is a speculation, but it shows the direction taken by many modern investigators, and shadows forth what many believe to be the true theory of disease. Here Dr. Sanderson's paper comes to an abrupt conclusion, but we may look for something more on the same subject at a later period from one whose researches carry with them, especially to those knowing the man, unusual weight and authority.

Of the researches of Dr. Thudichum, two appear to us to be of peculiar value; many of the others seem to be marred by that peculiar tendency of their author to manufacture strange names. In one he has set himself to work on uric acid and the best mode of estimating it aright—this has long been a bugbear to physiological chemists. First of all he uses alcohol, and washes well with the same to remove colour; next he separates phosphates by hydrochloric acid; the uric acid is dissolved in potash for its further purification, and finally precipitated by hydrochloric acid. The quantity, as then estimated, passed daily by a healthy man is about ·35 grammes, or between five and six grains. To Dr. Thudichum belongs the credit of separating a new acid from urine extractive—he has called it kryptophanic acid; and here in this volume there are elaborate researches into its constitution.

Dr. Thorne's report hardly settles the vexed question whether eczema epizootica produces anything like itself in the human subject through the medium of milk. He was able to find out certain isolated cases of vesicular eruption about the mouth, in the neighbourhood of Beccles, but their direct causation could hardly be traced. The negative evidence was very strong in most parts of the country. We fear, therefore, we shall not get beyond this: that, sometimes when foot and mouth disease is raging among cattle, a vesicular eruption is seen about the mouths of those who consume milk largely.

The report tells us that the year 1869 has been, Medically speaking, made famous by the prevalence in some localities of an epidemic to which the country has for many years been a stranger. The disease here referred to is relapsing fever.

The whole of the cases in 1869 were treated in the London Hospital; but in the first three months of this year (to which Mr. Simon thinks it advisable to extend his report), some of the cases were treated in an additional Hospital provided at Hampstead by the Metropolitan Asylums Board under their Act of 1867. The number of cases thus treated in the last three months of 1869 was 694, and in the first three months of 1870 was 551, and of these 140 were still in Hospital at the date of the report (March 31). Of these cases, 153 were treated in the Metropolitan Hospital at Hampstead and the rest in the London Fever Hospital. The number of deaths was 17. The report condemns the Diseases Prevention Act, which had in this "important crisis to be treated as virtually obsolete, because its enforcement would have confused instead of simplifying, and have weakened instead of strengthening, the machinery which it is imagined to make more effective."

Another matter exceptionably treated in the report is the recent and, in fact, still (in some places) prevalent epidemic of scarlet fever. An account of it has already been given in our columns, but as Mr. Simon gives in a condensed form the official experience of the visitation, and as this is the first time that Government has dealt with the question generally, we will state what seems to us to be the official views on the matter.

Mr. Simon says that our present scientific knowledge of the disease is such that all we can do to prevent its spread as much as possible is to enforce a thoroughly strict system of isolation-rules against infected persons, and infected houses, and infected furniture, and infected clothing; for, he continues, we know that persons who are themselves under the influence of the poison "evolve it in enormous quantities," but yet, though this is so, Mr. Simon says, "as knowledge and administrative resources now stand, official powers of preventing this murderous disease are, practically speaking, insignificant." With such a statement as this we cannot help asking of what use the Sanitary Act is. We have long known that the blundering in the matter of local authorities is a disgrace to those who are responsible for the Act, but we did think that the Act, so far as disinfection is concerned, excepting in one particular, was capable of being efficiently worked. Now, however, we are authoritatively told it is not. All this tends to demonstrate most forcibly that extreme precaution should be as far as possible taken to confine any outbreak which takes place to as narrow limits as possible, or, as the report says:—"Thoroughly to isolate the sick from intercourse with susceptible persons, and thoroughly to trap and exterminate all contagium which the bodies of the sick evolve, are the preventive feats which have to be accomplished."

The two great steps which are to be taken are the ample local provision of Hospital accommodation and the total separation of the sick from the healthy. But the report says:—"Doubtless such rules would interfere with certain hitherto permitted freedoms; that children should at their parents' discretion carry infection from families into schools, that schoolmasters should at their discretion disperse infected children haphazard about the country, that householders should at their discretion send infected wash-things to common laundries, that lodging-house keepers should at their discretion conceal the infectedness of their apartments, that all sorts of people, in all sorts of ways, should at their discretion endanger others; but I apprehend that, in the present state of our knowledge, freedoms such as the above can, in practice, only mean an unlimited acceptance of disease; for to imagine that, while such freedoms are allowed, extremely contagious diseases will spontaneously cease, is an absurdity which, when the cattle-plague was in question, no average cowkeeper entertained."

Nevertheless, these are matters which should be insisted upon, for, as Mr. Simon says, scarlatina (under our present knowledge of it) "cannot be effectually limited, except in proportion as the public is prepared to enforce thoroughly strict isolation-rules against it."

Our space will not permit us to do more than notice very briefly two other matters dealt with in the report—viz., what the department has done under the powers vested in it by the Pharmacy Act of 1868, and what it has done in the matter of inspection of vaccination. In the former matter the Privy Council has appointed assessors to attend during the examinations of candidates desirous of being admitted to pharmaceutical practice; it has also sanctioned new bye-laws, made by the Pharmaceutical Society, regulating matters connected with the Society; it has made additions to the list of poisons in the schedule to the Act of 1868. But this section further records the regret of the reporter that the clause of the Act which extends to drugs the provisions of the Adulteration of Food Act has not been of any practical usefulness, and that the section of the Act which empowers the Pharmaceutical Society to make regulations for the keeping, dispensing, and selling of poisons should also have been barren of results. That these two matters are of immense importance to the

public health cannot for one moment be doubted, and we trust that we shall be able to state that these important matters have been seen to. With reference to vaccination, we need only say that the amount distributed amongst the public vaccinators of 391 districts during the year 1869 amounted to £3885 15s. 4d., that 235 received first class and 156 second class gratuities, and that this represents a very great increase in the rate of first class over second class recipients, and we may fairly assume records a corresponding improvement in the vaccination itself.

The departmental inquiries into local outbreaks of disease do not, in the present report, obtain much notice. They were apparently of the ordinary kind of polluted air and polluted water, often accompanied with more or less overcrowding; and the one of which particulars are recorded serves but to show to what a state water may be polluted, and yet be used by the inhabitants of a place without their seeming to be aware of the poisonous qualities which it possesses.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.(a)

The Fellows and Members of the College have reason to be pleased with this annual publication, which increases in interest every year, and will be found a vast improvement on the old "List" of former years.

A new feature observable this year, and one much required, especially at the time when the annual elections into the Council arrives, is a chronological list of the Fellows in the order of their seniority, from which we find that Mr. Joseph Swan, a late member of the Council, is the senior Fellow, and not the late Mr. Bacot, as stated at the time of his recent decease by some of his biographers. From an inspection of this list we find that, out of the original 500 honorary Fellows, only 203 survive, the youngest being Professor Murray; but, after a careful analysis, we find that this number is reduced by deaths to 193. Of Fellows by examination there are are 421, and by election 726, making a total of 1340. During the past year only 15 Members have been elected to the Fellowship, whereas the number of Fellows admitted by examination during the year was 37.

The Council or governing body of the College consists of 24 members, three of whom, when no vacancy either by resignation or death has occurred during the year, go out in rotation annually in July, but are eligible for re-election by the Fellows of the College. During the past Collegiate year there have been sixteen meetings, at a remuneration to the Councillors of 316*l.* 1*s.* Sir William Fergusson, Bart., is the President, and Messrs. George Busk and Henry Hancock are the Vice-Presidents, and for the first time in the annals of the College, the latter gentleman is not at present a member of the Court of Examiners. The senior member of the Council is Mr. J. F. South, who was elected in 1841, and has twice filled the President's chair—viz., in 1851 and 1860; the junior member is Mr. Henry Lee, elected in July last. Of the officers of the College, taking them in chronological order, Mr. Stone appears to have served 38 years, Mr. Chatto 17, Mr. Trimmer 11, Mr. Flower 9, and Mr. Moseley 2 years.

The Court of Examiners consists of ten members, elected by the Council from the Fellows of the College; at the present time there are three members not on the Council—viz., Messrs. Skey, Partridge, and Adams. During the past collegiate year the Court has held five meetings for the examinations for the Fellowship, and fifty meetings for the Membership. For the former distinction 82 candidates offered themselves for the Primary Examination, of which number 67 passed, and 15 were referred for six months. At the Pass or Final Examination there were 39 candidates, of which number 37 passed, and 2 were referred for one year. For Membership there were 586 candidates examined in Anatomy and Physiology, of which number 394 passed, and 192 referred to their studies for three months. At the Pass Examination on Surgical Anatomy and the Principles and Practice of Surgery and Medicine, 380 candidates were examined, of which number 272 passed; 51 were approved in Surgery, but required to qualify in Medicine; 43 were approved in Surgery, and afterwards qualified in Medicine; and 57 were referred for six months. For these fifty-five meetings the examiners received £3612 10*s.* 6*d.*

The Board of Examiners in Midwifery consists of four members—viz., the Chairman, Mr. George Busk, as Senior Vice-President, and three other members, who are required to be elected either from the Fellows or Members of the College, or from the Fellows or Licentiates of the Royal College of Physicians; the other members of the Board are—Drs. Farre, Barnes, and Priestley; the two latter gentlemen are members of the College. During the past year the Board met three times, and examined 16 candidates, 9 of whom passed, 4 being referred for a written examination, and 3 referred for three months. The fees paid to the members of the Board were £18 4*s.* There are now 1013 Licentiates in Midwifery.

The Board of Examiners in Dental Surgery consists of six members elected by the Council for five years—viz., three members of the Court of Examiners of the College, and three other persons skilled in Dental Surgery. The Board consists at present of Messrs. Partridge, Hilton, and Cock, ex-Presidents of the College, and Messrs. Cartwright, Harrison, and Ibbetson, Fellows of the College. During the year 9 candidates were examined, of whom 6 passed to the satisfaction of the Board, and 3 were referred to their Professional studies for six months. The sum of £47 5*s.* was the amount of fees paid to the Board.

A new Professorship appears since the last calendar was published—viz., on Dermatology—founded by the munificence of the gentleman now worthily filling the chair, Mr. Erasmus Wilson, F.R.S.; the other Professors are—in Surgery and Pathology, Mr. John Birkett; and in Comparative Anatomy and Physiology, Mr. W. H. Flower, F.R.S. Mr. J. W. Hulke, F.R.S., is the Lecturer on Anatomy and Physiology.

The Honorary Medal of the College was presented—in 1800, to Mr. J. Wilson; in 1822, to Mr. J. Parkinson; in 1825, to Mr. J. Swan; in 1834, to Mr. G. Bennett, of Sydney; and in the past year, 1869, to Mr. W. L. Crowther, of Hobart Town.

For the Jacksonian Prize no dissertations were sent in during the past year; the subject of this prize for the present year is "Hæmorrhagic Diathesis and Spontaneous and Accidental Hæmorrhage." The subject for the ensuing year, 1871, is the Treatment of Wounds after Operations, including the Arrest of Hæmorrhage, Primary and Secondary. The Collegiate Triennial Prize, consisting of the John Hunter Medal, executed in gold, to the value of fifty guineas; or, at the option of the successful author of the dissertation, of the said Medal, executed in bronze, with an honorarium of £50. The subject for this prize is the Anatomy and Physiology of the Organs of Taste and Smell in the Mammalia. The essays must be sent in before Christmas-day next.

The Library, on which the Council has expended a large sum of money, now contains 33,062 volumes, 13,592 works, and 35,962 tracts, pamphlets, reports, and theses. An interesting account of the Museum is also published in the Calendar. To gentlemen now pursuing their studies for the diplomas of the College, the Calendar will prove very useful, containing as it does the various examination papers submitted during the past collegiate year. Altogether, the Calendar is a very creditable production on the part of those engaged in its compilation.

(a) 8vo. Pp. 337. Taylor and Francis.

THE INTRODUCTORY ADDRESSES DELIVERED AT THE OPENING OF THE MEDICAL SCHOOLS.

ST. GEORGE'S HOSPITAL.

The Introductory Lecture was delivered by Mr. Brodhurst, who, after some remarks, said:—Hard work, then, is a grand element of success. But besides hard work, there should be unity of purpose. He who acts as though there were but one thing in the world to be done, and does it well, is certain of success, while he who has many irons in the fire fails.

Genius is the lot of few—it falls to no more than one in a million. Not only so, but it is rare indeed to find anyone gifted with super-eminent talent for the employment he may undertake. The resolute man, however, fits himself for the work which is ordained for him; he accustoms himself to it, perfects himself in it, and determines to carry it out vigorously; and whether it be a trade or a profession to which he devotes himself—whether his work be, in the eyes of the world, lowly or reputable—he expends his whole strength in doing that

which is set before him to the best of his ability, and thus to the honour of God. He masters the difficulties which surround him—he does not evade them.

If we could but recognise our condition here as a state of pilgrimage in which a certain amount of work had to be performed and accounted for—work, however agreeable or disagreeable, which, having fallen to our lot, had to be done to fit us for citizenship elsewhere—if every man could view the work imposed upon him in this manner, we should never hear of listlessness, idleness, or *ennui*.

It rarely happens that success attends those who, having been placed in a certain position, change their purpose and embrace a new undertaking. For want of fixity of purpose, these fail for the most part in the new, just as they did in the old undertaking. They have already expended a certain amount of brain-work in their first calling, and they arrive later than their fellows, with much toil and disgust, at their second.

Consider this; and if your minds are not fully made up, pause and reflect whilst there is yet time. If you determine to throw in your lot with us, then with brave and earnest hearts set to work, and you shall have all the help that we can give you. Never faint, but remember that the more difficult the task the more noble it is to overcome it. They will succeed who deserve success. Bring with you, then, earnestness of purpose, and it shall compensate you for defects, whether personal or of mental culture, and for the want of genius. Earnestness is the talisman which overcomes every impediment, and opens the door to success. If it is, then, success in life which you seek, and for which you come here to prepare yourselves, study with earnestness, and rouse yourselves to a sense of the dignity of labour. And yet, be not too ambitious to secure the good things of this life. Work on honestly and modestly, and doubtless competence will be added to you.

In this country, unlike all other countries in Europe, there is little room for ambition—high honours have never yet been attained to by any practising member of our Profession. State dignities seem to be thought incompatible with scientific attainments. And although the highest dignities of the State, next to the Royal family, are open to members of the church and the bar, none are provided for members of the Medical Profession.

A successful soldier or sailor may cut his way to the Peerage, or a successful merchant may so distribute his wealth as to raise himself to the House of Lords; but such qualifications as those which were possessed by Halford or Brodie are not yet considered equal to the valour of the soldier or the craft of the merchant. A baronetcy or knighthood is sparingly offered to members of the Medical Profession (not according to merit, however, but simply to those who are about the Royal person), and similar honours are much more profusely bestowed on sheriffs and mayors, who have perhaps presented an address or fêted Royalty, but whose names are probably unknown beyond their own immediate circles of acquaintance—while a Faraday, or an Owen, or a Syme, or a John Hunter receives no recognition from the State.

Such, then, being at present the manner in which honours are distributed, you must not enter the Profession with the hope that, even though you render great service to the State, you will be adequately rewarded, or rewarded as a member of any other Profession would be. You will be called upon whenever occasion requires it, to render whatever service you can to the State, but you will seldom even gain thanks for the service you have rendered.

I firmly believe, however, that this unsatisfactory, and I may add, discreditable state of things is drawing to a close, and that by the time when you are ready to profit by the change, those who have devoted their lives to the cultivation of science and the benefit of their fellow creatures may, in Great Britain, receive not less honour than is accorded to them in France, or Prussia, or Austria, or than is accorded to distinguished members of the other learned professions.

But, beyond this earnestness of purpose, there is still another quality which you will do well to cultivate—namely, sympathy with the sufferings of those around you A cold, heartless manner is intolerable in a sick room; and no amount of knowledge will compensate for the want of a genial sympathetic, and unaffected manner. Without it you may fail to crown your labours.

And, again, there is that which no man acquires by nature, which is necessary for every mortal man, and without which other things are comparatively useless—"reverence—honour done to those who are greater and better than yourself; without fear—distinct from fear." Goëthe speaks of three kinds of reverence—namely, reverence for what is above us; reverence for our equals; and reverence for what is beneath us; to recognise in pain, sorrow, and contradiction—even in those things, odious as they are to flesh and blood—to learn that there lies in these a priceless blessing. This he defines as being the soul of the Christian religion—the highest of all religions; a height to which man was destined and enabled to attain, and from which, having once attained it, he can never retrograde.

If you will cultivate this frame of mind, it will best fit you for those trials in life which are sure later to overtake you, as they overtake the best men; and in this spirit you can alone practise your Profession with any comfort and satisfaction to yourselves. The career which it opens to you is a noble one, if the best faculties of the heart and mind are engaged in the pursuit of it, and all meanness and littleness are excluded. It opens to you abundant opportunities for usefulness in the world; you gain the esteem of your fellow-men; and you earn for yourself independence at least, if not wealth.

In conclusion, gentlemen, think nobly of your Profession, put forth your strength with earnestness to master its details, and be assured that my colleagues and myself will spare no pains to facilitate your work. Proceed in this path with diligence, remembering that there is no sweeter recollection than the sense of difficulties overcome. Do everything that can become a man, avoid everything that can degrade him. Thus you will honour your Profession by your virtues, and you will reap the most substantial blessing which this life can afford—namely, the knowledge that you have not misspent your time, but that you have improved your opportunities.

THE LONDON HOSPITAL.

The Introductory Lecture was delivered by Dr. Henry G. Sutton. After some preliminary remarks, the lecturer said that he intended to address not only "Medical students," but students of Medicine. He would endeavour to show how each department of Medical science bears on the prevention and cure of disease. There is an order in our studies with this object in view. We first study anatomy and physiology, since to know man in disease we must first know man in health. Next we work at morbid anatomy and pathology, and lastly we learn the arts of Medicine, Surgery, and midwifery. The lecturer, in several parts of his lecture, pointed out the intricate relations of physiology and pathology. He urged very strongly that in the study of healthy states we should give a large share of our attention to the anatomy and physiology of lower animals and plants. By investigating comparatively simple organisms we shall have less narrow views than the exclusive study of man's more highly complex organisation tends to produce. Besides studying the minute anatomy of the several parts of the body, and the functional relations of its numerous organs in the "ideal man" the physiologist speaks of, in teaching, we must study variations from the ideal standard. Here the lecturer drew particular attention to the importance of studying inherited peculiarities of bodily conformation and of mental action. Men are born different; moreover they live, or, as we may say, are educated (using the term in an unusually extended sense), under different external conditions. Hence, there are two factors—heredity; and the influence of outer circumstances—which make the adult what he is in health. The influence of each of these two factors is to be considered, if we are to obtain complete knowledge of the man who comes to us for some particular disease. Speaking of the action of external conditions, the lecturer said that the most general of them (the influence of climate, variations of temperature, and the like) should be observed, not only as they affect man, but as they affect inferior animals, and even plants. Man is exposed to numerous highly special influences. It is part of our duty not only to investigate the influence of locality, climate, and occupation, but also the influence of politics and of religion. Returning to a consideration of the differences of individuals, the lecturer remarked that each person has his own standard of health. Individual variations in mental and physical action are very great within the limits of what we call health; in other words, men are of different temperaments. Although in each of three men some one organ or some system—nervous, vascular, etc.—is especially developed, each of the three is in good health so long as the rest of his body is developed in accordance with his most special development. There is equilibrium. The lecturer admitted, since men are so like and yet so unlike, that we cannot pretend to classify every one of our patients under some

particular temperament. As in most other living things, there are insensible gradations—there are gradations from one temperament to another. Nevertheless, there are large degrees of difference which should be noted, and we can, at all events, arrange very many men in groups, as they approach one or another standard. To illustrate the value of noting differences in temperaments, the lecturer remarked on the difficulty we frequently have in understanding the real meaning and bearings of certain symptoms some patients present, which are not present in other patients ill of what we must call the same disease. Are not these symptoms due to the temperament of the man who is ill rather than to the disease which is, so to speak, attacking him? We should pick out well-marked types of men for our first studies of temperament, and afterwards note the many modifications. He then began speaking of pathological studies, and remarked that one of the reasons why the physiologist had so far outstripped the pathologist was, that the former had taken as his field of observation the whole animal and vegetable kingdom, whilst the latter had, with few exceptions, confined his investigations to man. The lecturer pointed out that the external conditions which give rise to diseases in animals are fewer and simpler, and that there are also fewer acting at the same time. The causes of their diseases are simpler, and therefore can be more easily studied. But a man may be overworked, be taking large quantities of alcohol, and be suffering from extreme mental anxiety at the very same time. When disease follows, it is very difficult to say which of the circumstances mentioned is the cause, or the chief cause, of the malady. The effects of domesticity and of variations of climate in, and leading to, diseases of horses and other of the lower animals were spoken of. In diseases of animals the opportunity of investigating the morbid processes at any stage of the disease is obtainable by killing the patient. Again, there are products physiological in certain lower animals which are pathological in man. It is reasonable to suppose, therefore, that the study of healthy processes in animals will sometimes reveal the secret of the formation of pathological products in man. Moreover, the structure and arrangement of tissues in lower animals and plants are simpler, and admit of more easy investigation and of more certain conclusions.

The lecturer remarked that the study of the orderly succession and slow growth of cells in health is essential, if we are to have clear notions of the disorderly succession and rapid growth of cells in disease. Pathological changes are to be studied as modifications of physiological changes. In the return from disease to health there is a more or less gradual substitution of physiological order for pathological order. The substitution, however, may not be complete. Diseased structures do not always regain their previous healthy condition. Effused products, which, as we say, have become organised, have not the physiological status the normal tissues have. They grow rapidly, whilst the normal tissues grow slowly. Rapid growth is too often followed by early decay. Durability and slow growth go together.

The lecturer next spoke of the sequences of disease. The presumption is that all morbid processes have a definite course. In some diseases we can declare what that course is. There are well-marked periods of outset, exacerbation, and decline; and in many others which have no definite periods there is a traceable order in the larger events. If a number of persons suffering from chronic Bright's disease be carefully watched, the rule is that we find cerebral phenomena at one stage, gastro-intestinal at another, and cardiac and pulmonary at another. Such an order is what is commonly called the natural course of disease. Without knowing this order we cannot judge correctly of the progress of our patient, we cannot foresee emergencies, and we cannot estimate the effects of treatment. Towards the close of his lecture, Dr. Sutton made remarks of a more general kind. Among others, he urged the importance of learning to use skilfully the thermometer, the stethoscope, the microscope, the ophthalmoscope, and the laryngoscope. He begged students to investigate cases of disease earnestly and sincerely. The great element of success in diagnosis and treatment is painstaking. They should care nothing for the common-place reputation, only obtainable among uneducated people, of a jaunty case in diagnosis, such as is contained in the expression, "Mr. So-and-so sees what is the matter at a glance." We close our notice of this lecture by giving the following remarks on the prevention of disease:—

There is another branch of medicine which has made great advances the last few years: the art of preserving health—that is, of preventing diseases. It has gained greatly in popular estimation. Public opinion realises that it is more economical to prevent disease than to cure it. The Medical mind recognises that a large proportion of contagious or infectious diseases are preventable. Many acute pathological changes are preceded by degeneration in the tissues of the body. Chronic diseases are very often the result of decay in the tissues, which can no more be cured than an old oak tree can be made young again. The cells and vessels of the tree, and the fibres and cells of the man, have exhausted their life. All these things teach the Medical man that a large number of diseases are incurable, because the diseased tissues are more or less molecularly dead. He is required, therefore, to find out the earliest indications of failing health, and to instruct the patient how he is to live, in order that he may arrest or retard the decline.

To preserve health we must obviate the causes of disease; and here pathology comes to our assistance. It assists us in determining the conditions which are acting and exciting disease.

In guiding a person how to prevent his health failing, a Medical man's knowledge and skill is most severely tested. For we are bound not to cause the patient any needless anxiety and suffering, and we must not allow him to fall into incurable disease and death without pointing out to him how it is to be avoided.

The Physician should try to detect the slightest failure in function, and the earliest indications of tissue decay. Many patients come for advice, complaining of wandering pains, of slight indigestion, or some other apparently trivial affection, and we find that these ill-defined symptoms are the earliest indications of tissue degeneration. Many agitated, nervous, ill-regulated children, are the future victims of hysteria, epilepsy, or some mental brain disease.

This is a section of Medicine which must amply repay any amount of labour in research; and, as it progresses, mankind will become conscious that the advance of Medical knowledge is contemporaneous with the world's improved development.

Vast numbers of children living in our large towns are the offsprings of degenerate parents, and grow up sickly; they are but natural products of the noxious influences which surround them; and no Education Bill can accomplish what all education should do—that is, develope the man—unless it is accompanied or preceded by the enforcement of sanitary laws. Brain function, mind, and brain are inseparable, and to raise the qualities of one we must take proper care of the nutrition of the other.

The lecturer concluded by stating:—I have endeavoured to show how important it is that every student should examine the influences which man inherits from his parents, and the influence of the conditions which surround him. They are the two factors of health and disease; and the cure, alleviation, and the prevention of disease is to be regulated by attention to each of these. The phenomena of health and disease are the certain results of antecedent conditions. When we observe what is passing around us—how the agriculturist, by taking advantage of inherited influences and of the actions of external objects, developes and rears animals to serve the purposes of man; how the horticulturist, by similar means, developes and modifies the colour, the shape, and beauty of his plants and flowers to educate and gratify the mind of man—we perceive great principles which the Medical Practitioner may some day use to prevent and relieve the sufferings of his fellow-beings.

We see that the physical sciences are making great progress, and it is our duty not to allow Medicine to lag behind. We must avail ourselves of every kind of knowledge which tends to disclose to us physiological and pathological truths.

MIDDLESEX HOSPITAL.

The Introductory Address was delivered by Dr. Cayley. After some remarks, running over the ordinary topics of advice to the students, the lecturer proceeded:—

This concludes the few remarks I had to make upon the nature of your studies, and the means to be used in order to attain proficiency in them.

But I think that on an occasion like this it is but right that we should for a moment cease to regard our Profession merely as it concerns ourselves as individuals and our personal interests, but look at it from a higher point of view, and consider what are its proper functions in society, and how those functions are performed; and especially at a time like the present, which is acknowledged by all to be one of rapid transition—alike by those whose affections, still clinging to the past, cannot view old and well-tried institutions undergoing transformation without some feelings of regret and anxiety, as well as by those who, believing the progress of society, like that of the physical world, to be one of natural evolution, look forward

with more confidence to its successive developments; and doubtless in our ranks both classes are to be met with, for we have a past to look back upon with pride as well as a future to look forward to with hope.

At a time, then, when all established institutions are being severely scrutinised, and only those can hope ultimately to retain their position which are able to show that they are really performing necessary or useful functions in the community, it may be well for us to inquire whether the Medical Profession, as a whole, does really perform what it professes; whether it lowers the rate of mortality, diminishes the total amount of sickness, and favours the growth of a robust and healthy population. We should no doubt at once be inclined to answer—it is incontestable, and that, therefore, our position is secure; and, whatever changes may take place, we at least have only to look forward to a more extended field of usefulness, and I think rightly so. But there have not been wanting, both in ancient and modern times, those who have urged objections to our claims.

This question was once debated by the best and wisest of the ancient world, and was answered in a manner we should hardly think satisfactory. And the reasons which lead those illustrious men to advocate, if not our complete exclusion from the ideal state, at any rate so material a limitation of our office as to render it practically a nullity, are founded on a true insight into physiological laws, are eminently scientific, and have, therefore, lost none of their force. They, distinctly seeing what we are liable to forget—that one main office of the State is to ensure, as far as may be, that all the members of the community shall be well trained and fitted for the discharging of the duties of their several stations—necessarily looked upon health as a first requisite; and, having a true insight into hygienic principles, and a distinct appreciation of what we now call the "law of heredity," saw that to rear the sickly, to prolong the career of the intemperate, to enable the constitutionally diseased to protract a useless existence, and to beget children in all probability as unhealthy as themselves, was not the way to render a people healthy. They therefore maintained "that the healing art was revealed by the gods for the benefit of those whose constitutions were naturally sound, and had not been impaired by their habits of life, but who, attacked by some specific complaint, might be speedily restored to the discharge of their duties. But as for the constitutionally diseased and the intemperate, they looked upon the existence of such a man as no gain either to himself or others, and, believing that our art was not meant for persons of this sort, considered that to attempt their cure would be wrong."

Such were the opinions of these ancient philosophers; and it cannot be denied that such a system, if fully carried out, is well adapted to attain the desired ends. By only bringing up healthy children, the offspring of healthy parents, by virtually weeding out the sickly, and by a careful physical training, there is little doubt but that many of those evils from which we suffer might be eradicated. It is, indeed, the system we adopt when we wish to produce a particularly fine race among the lower animals.

But since then, I need hardly say, we have had greater teachers than Plato, and learnt a morality higher than that of Socrates, and, holding now deeper views of the sanctity which attaches to each individual life, and recognising the absolute supremacy of the moral law, to which all considerations, however apparently based on expediency or science, must give way, but with which, indeed, true science cannot possibly conflict, should shrink with horror from any proposal to treat our fellow-men in the manner in which we think ourselves justified in treating the lower animals, or from violating those rights which are equally sacred in the weakest and most helpless, as in the strongest and healthiest.

What then is the alternative? Are we to continue to exhaust all the resources of our art, all the improved means which the advance of science places at our disposal, in rearing the scrofulous, training up the idiotic, enabling the phthisical to marry, and the syphilitic to beget children—to do, in fact, all in our power to counteract that beneficent law of nature which provides that, in the struggle for existence, the fittest shall survive and carry on the race?

Before attempting to answer this question I will briefly refer to the modern objectors against the utility of our art, and who have arisen chiefly in our own ranks. These urge that, apart from mere Surgical and mechanical appliances, our power of controlling disease by the use of remedies is almost null, and that by attempting to interfere we really do more harm than good; and hence has arisen what is called the expectant school of treatment, in which the Physician looks on as an intelligent spectator at the contest between the disease and the constitution of the patient, but without departing from a position of "benevolent neutrality."

To show to what lengths this spirit of scepticism may be carried, I will read you the opinion of one of the most accomplished Physicians of the present century, the late Dr. James Johnson. He says—

"I declare it my conscientious opinion, founded on long experience and reflection, that if there were not a single Physician, Surgeon, apothecary, man-midwife, chemist, druggist, or drug on the face of the earth, there would be less sickness and less mortality than now obtains."

It is hardly necessary to answer seriously the objections of this school, which do not indeed touch our main position, and are themselves actually due to the great advances which have been made in our knowledge of the laws of health, the nature of disease, and in our power of controlling it.

This advance in our science, by overthrowing many well established prejudices, by showing how weak was the foundation on which many of our most cherished practices rested, lead inevitably to a period of scepticism. This, indeed, however, can never be more than a temporary phase, and it is one which, for us, has nearly passed away.

We have now a clearer knowledge of the true powers of the remedies we employ and the objects to be aimed at in their administration. We know that many good effects which were attributed to our remedies were really due to the natural course of the disease, and some bad effects which we attributed to the disease were really due to the remedies, and that many remedies do not produce the physiological effects formerly ascribed to them. A deeper knowledge of pathology and improved means of diagnosis have taught us that many manifestations of disease, which our predecessors would have looked upon as groups of symptoms readily amenable to appropriate treatment, are really due to hopeless disorganisation of vital organs. Where they saw perhaps comparatively unimportant affections, we see behind, a disorganised kidney, a liver almost converted into fibrous tissue, a heart whose valves have become thickened and rigid, a brain whose nutrient arteries are converted into brittle tubes of chalk and oil. And though many diseases are quite under our control, and our means of successful treatment are being constantly increased, and admit of indefinite improvement, there is sure to remain a large class of cases whose condition has become absolutely hopeless long before the aid of the Physician is invoked, or in whom the disease will run a definite course, unaffected by any interference on our part. But while our power of curing disease must always be limited, our power of preventing it admits of indefinite extension. And this is the true answer to the objections against the utility of our art, on the ground that by enabling the feeble and sickly to live and breed we are really promoting the growth of an unhealthy population.

Recognising as we now do that all forms of sickness whatsoever—whether it be these awful visitations of epidemic pestilence which our terrified ancestors regarded as caused by the direct interposition of supernatural power, or those far more mysterious and inexplicable constitutional taints which, handed down from parent to child, are the fruitful cause of so much disease—all these, I say, are really due to material causes and governed by natural laws, which are to a great extent in our control. Hence, if we can succeed in removing these causes, and so cut off any fresh developments, we may expect the gradual extinction even of the most distinctly hereditary diseases—for, do what we will, the tainted part of the community is far too heavily weighted to prevail ultimately in the race of life. Such, then, being our objects, I think that, so far from being excluded from the ideal state, we should, indeed, deserve a place among its guardians.

Our knowledge, indeed, of the causes of diseases, and of the means of preventing them, rudimentary as they are, are yet far in advance of our actual practice. For this we are not responsible; it is due to ignorance and consequent apathy or prejudice on the part of the great body of the people, and, as a necessary result, feebleness of action on the part of the executive.

The public are filled with horror and pity when they hear of the fearful slaughter of the battle-field, of the sufferings of the wounded, of the affliction of the bereaved relatives; but when they read that in ten years upwards of 180,000 persons died in the United Kingdom of continued fever alone, and far larger numbers of other forms of preventible disease, their imaginations are scarcely at all impressed, their sympathies

little aroused; and yet we must remember that these victims to our defective social organisation fell in no glorious cause—sacrificing their lives willingly for the honour of their flag, the safety of their country, and whose memories will ever be held dear by a grateful people—they languished away obscurely, unregarded, and their very suffering and death only too often were the means of spreading the deadly contagion among those dearest to them.

It is, no doubt, encouraging to reflect that these evils are due to want of knowledge merely, and not to want of benevolence. The very place where we are assembled is sufficient to show that of benevolence there is no lack. The charitable and humane will munificently build splendid Hospitals, furnish them with every appliance which can cure or alleviate disease, attach to them schools of Medicine, where the science and art of healing may be successfully prosecuted; and, perhaps, not one hundred yards from the gates of such an institution will be found streets and houses, the condition of which and of their inhabitants will inevitably be far more potent in producing disease than all the resources of the Hospital can ever hope to be in curing it. Much, indeed, has of late been done to remedy these evils, and the success which has attended these partial efforts may well encourage us to proceed. But for anything like a complete and effectual system we must no doubt wait till the spread of scientific education through the great body of the people shall bring home these truths forcibly to their minds, and at last result in an Executive not only sufficiently enlightened to see the paramount importance of these questions to the happiness and welfare of the community, but sufficiently instructed to devise suitable means for their solution, and sufficiently strong to enforce those means.

Thus, then, you will see that the true function of our calling is not only to relieve individual cases of suffering, but to attack the very sources from which those sufferings flow. You are, indeed, now enlisted in the army of light, whose duty it is to war with evil. Others may have the higher office of combating moral evils; others, again, of contending against political evils; it is for us to fight against physical evils; and such is the mutual alliance between these different forms, and their dependence on one another, that in attacking one we do, in fact, assail all.

Such, then, being your calling, it rests for you now to render yourselves worthy of it. So use, then, your opportunities here, that when your period of training is over, and you leave these walls to begin your great battle with disease and death, you may, indeed, be well armed and equipped for the contest. With moral principles strengthened and braced by habits of industry and perseverance, with intellects freed from prejudices, clear-seeing, open to the truth, well furnished with scientific and practical knowledge; with your faculties disciplined for the work you have to perform: eyes skilled to see, ears practised in hearing, hands trained to obey all the behests of a sound and ready judgment; and thus you may show yourselves not unworthy of this great Hospital, useful citizens of our country, among whose many glories not the least are those beneficent discoveries which have been made by her sons in the science and art of Medicine; and lastly, and above all, true and earnest workers in that Profession which is confined to no people and to no country, but whose object is the relief of evils common to the whole human family, and to which you have to-day devoted your lives.

QUEEN'S HOSPITAL, BIRMINGHAM.

We regret that our want of space will not permit us to do more than give an extract from Dr. Fleming's admirable Address, delivered at the opening of the session 1870, at the Queen's Hospital, Birmingham.

At the bedside a Medical man is valued not by the extent of his knowledge, but by the fertility of his resources in relieving his patient, and these two qualities have no necessary connexion. On the contrary, I have been personally acquainted with, and I could cite to you well-known names of men who have enjoyed the highest reputation for learning, but who were embarrassed and feeble in the sick room, and who never achieved success as Practitioners. Their knowledge was large and unwieldy, not compact and ready. Such men win a justly-merited fame as the erudite authors of valuable dictionaries and cyclopædias, but are not remembered for remarkable cures. A Medical man may be said with justice to have too much knowledge when his accumulated stores have passed beyond those limits within which he can grasp them easily, and translate them promptly into remedial action.

You will see, then, how all-important it is to your success in practice that your knowledge should be quickly available and ready for use. No vague generalities, no hazy impressions as to the value of this or that mode of treatment, will serve you in the hour of emergency. All such hesitation indicates want of confidence in your own resources, and a doubt as to the truth of the convictions from which action should take its rise.

In promoting this habit of mind, the clinical instruction of the Hospital is invaluable. At the bedside of the patient the student learns how the man of experience instantly utilises his knowledge for relief and cure; and by the pertinence of his questions, and the quickness of his observations, gathers rapidly a practical understanding of the case, which would but puzzle and mystify him whose mind is overloaded with undigested facts and confused with conflicting theories.

In this respect more is expected of you than of any other professional man. The lawyer, the divine, or the commercial man can retire for reflection, and opportunity is rarely denied him for maturing the difficult problems of his art. Authorities can be consulted, advice asked, and ignorance or forgetfulness may thus be concealed, and the consequences avoided. But no such refuge is within your reach; called upon at any moment to act in emergency, when all knowledge, except what you actually possess, is valueless, the punishment of imperfect information, or ill-digested study, follow surely and swiftly. You cannot, as the lawyer said, "take time to consider," for before the needful knowledge can be dragged from the dusty caverns of your own memory, or sought for in books, or in the mind of another, the opportunity for using it is irrecoverably gone; and to the sensitive and conscientious man the material loss of the confidence of his patient is almost more bearable than the wound to his self-respect, added to the bitter consciousness of years and opportunities irretrievably wasted.

And now let us take for granted that you have attended to these hints which I have thrown together, and gained such an acquaintance with the theoretical and technical requirements of your calling as will eminently fit you for the position to which you aspire. Is not something more requisite, without which all your previous labour may be in a great measure in vain? Assuredly so; and on this important point I would wish to say a few brief words.

You must have the art of getting, and the tact and power of keeping the patients on whom to exercise the knowledge you have acquired. It is here that good sense, knowledge of the world, kindliness of temper, self-control, and general culture, assert their value. We often see the genuine student, by a too exclusive attention to Professional studies, and the neglect of those equally important moral and social qualities, lose ultimately the reward he so well deserves. The world is very exacting in its estimate of what a Medical man should be, and in the "fierce light which beats" about his position, little errors, weaknesses, and peculiarities (not to speak of graver faults) stand out with a startling prominence. I would, therefore, urgently remind the young aspirant not to forget that his future and his success will be found in the world, and that he must study its healthy ways, and conform in some measure to its conventional rules, if he would gain that vantage ground from which the highest success can alone be reached. I do not mean by this that he should practise the cunning and wiles of common men, much less that he should condescend to the unmanly position of him who from motives of interest is ever "all things to all men." But while perfectly maintaining his own self-respect, he should cultivate the art of making friends, and of gaining their esteem and confidence—a faculty which may be carried even to the highest perfection by him whose cheek would burn at the mere thought of stooping to the unworthy artifices of the toady and the time-server.

That gentle forbearance with the selfish and irritable; that ready sympathy with the suffering and unhappy; that quiet firmness exercised over the weak and vacillating, command not only the esteem and confidence of men, but may be, and often are, associated with the conscientious discharge of the highest duties.

Again, in your relations with your Professional brethren be always fair and honourable to their interests and their good name. Avoid earnestly that jealousy of the labours and of the success of others, that disposition to misconstrue good, and to suggest bad motives, which so often embitters Professional life; it is cowardly, unmanly, and poisons the very springs of that "charity which thinketh no evil." Generous habits of

thought and action, in relation to other men, give proof of true wisdom, and are among the noblests results of a refined culture.

Carefully avoid a cavilling and sceptical spirit. Honour your Profession; believe earnestly in its great and acknowledged truths. It has been justly observed, "The beginning of all knowledge is faith." The study of no profession can begin with scepticism, "much less should it end with it." Of all blighting influences it is the worst, withering and destroying not only belief in the first principles of our art, but paralysing every power of inquiry, and corrupting at its very source the wellspring of knowledge. This is not the time or place for refuting the charge of impotence brought sometimes by thoughtless or designing men against the remedial power of Medicine. The contradictory and diverse opinions that are constantly advanced on almost all subjects connected with the doctrine and practice of Medicine give occasion for the sneer and the cavil from the ignorant and narrow-minded.

Be prepared for this, but let it not disturb your reliance on the stability of those foundations of your Profession which future research will only strengthen. As sensible would it be to despise and question the advantages of telegraphy, because the laws of electricity are not yet completely defined and understood, as to throw away the assured and unquestionable benefits of Medical art, because its fundamental principles have as yet eluded the grasp of the philosopher.

QUEEN'S COLLEGE, BIRMINGHAM.

The Introductory Address was delivered by Professor Berry, F.R.C.S., Professor of Clinical Midwifery and of Diseases of Women.

After some remarks on education, Professor Berry said, I believe that the time is not far distant when we shall have a Minister of Education, who will be responsible for the general education of the country; and if our metropolitan and provincial schools are careful to seek their development, a broad principle of national utility is destined to play an important part in their secular and Medical education. As far as Medicine is concerned, we have a right to demand—a demand already made, but postponed, but must be repeated with no uncertain sound—that our Medical Council shall be properly constituted, that the various grades of our Profession shall be truly represented, that the education in the three Kingdoms shall be more uniform, and that the members of our Profession shall have perfect freedom to practice, untrammelled by mediæval privileges. It is not to education, though this be a fertile subject, that I wish to direct your attention this day, but rather to show you that whilst practical science has been making during the present century great and rapid advances, startling us by the brilliancy of her discoveries, Medicine has not been behindhand, but has achieved results as striking and advanced with strides as rapid as in any one department of science. She has risen to her high position, and whilst she willingly acknowledges the advantages and benefits she derives from the discoveries in the sister sciences, she uses them, as well as her own, only as a means, and subservient to, the alleviation of suffering and the prolonging the existence of the human race. He then went on to show the progress that chemistry and physiology had made during the present century, also how differently anatomy was studied to what it was fifty years ago, and the influence of pathological anatomy in giving us more correct views of morbid processes and results. The microscope came to the aid of the pathologist, and disclosed the true nature of some diseases, and changed our views with respect to others. Besides this, the microscope has been of essential service in discovering to us morbid conditions which were before unknown, as leucocythæmia, and the presence in the stomach of sarcina ventriculi. Pathological chemistry has made great advance of late, and is, I believe, destined to advance more than any other department of Medicine; and Medical men are looking more and more to an extension in the knowledge of the nature and treatment of diseases by microscopic discoveries in the fluids, rather than by an increased knowledge of the varying vital forces of the solids of our body. He then endeavoured to point out that such advantages in Professional knowledge and Professional resources gave undoubted evidence of sound and solid progress in Surgery and Medicine in these later times. He spoke of the more clear and correct views of the pathological doctrines of inflammation, as exemplified in the modern simplified management of wounds and injuries, in the improvement of individual operations, the introduction of new operations; the inestimable advantage derived from chloroform, which permits the Surgeon to recommend operations which before its introduction the voice of humanity would have rejected as too painful and horrible. The advance in Medicine had been as remarkable as in Surgery. The Physician has acquired a far more extended knowledge than his predecessor of the last generation had of the nature and diagnosis of the various diseases to which the body is liable; and in proportion as his knowledge has been precise and clear, so also has he been able to use his remedial means with greater precision for the relief and removal of them. Physicians have also learnt to know more precisely when they ought to strike in to aid Nature with the resources of art, and when they ought to leave Nature to her own unassisted efforts. Every step of true progress in this knowledge forms, undoubtedly, a step of true advancement in practical as well as scientific Medicine. As evidence of how much practical Medicine had progressed, he adverted to many improvements in the practice of Medicine in relation to particular diseases—as scurvy, now banished from our fleets; the improved treatments and detection of the oxalic, phosphatic, and other diatheses indicated by the state of the urine—to our increased knowledge of the diseases of the head, chest, abdomen, and pelvis; and to the vast addition made latterly to our knowledge of the importance of various prophylactic and hygienic resources in the prevention of disease. He then addressed himself to the students, and told them that their feelings were not unknown to him, for they must be similar to what he himself experienced when he occupied the situation they do now. He told them they had chosen a Profession beset with early struggles and difficulties, but a Profession in which no one who uses the means proper for the purpose, and perseveres, will fail to succeed in gratifying a reasonable and lawful ambition; and, in conclusion, he assured them that no man ever reached, and that no man ever can reach, great reputation and great excellence without great exertion. With the necessary exertion the lowest amongst you are sure to rise—without it, the highest amongst you are as sure to fall.

REVIEWS.

Des Bases Organiques, Naturelles, et Artificielles, au point de vue Chemique, Physiologique, et Médical. Par le Dr. A. Lacote. 1869. Paris: Masson et Fils. London: Williams and Norgate.

This is a very creditable and well-arranged thesis (composed for a *Concours pour l'Agrégation*), in which the author, in less than a hundred pages, gives us a very good history of—(1) the Natural Alkaloids; (2) the Artificial Alkaloids; (3) the General Properties of these Organic Bases; (4) their Physiological Actions and Medical Properties; and (5) their Toxicology. Passing over the first two chapters of Dr. Lacote's thesis, we will glance at his mode of discussing the General Properties of Organic Bases. He begins by noticing the different physical states in which they exist at an ordinary temperature—some, like methyamine, being gaseous; others, like conicine and nicotine (among the natural bases) and aniline and tolnidine (amongst artificial bases), being liquid and volatile; others being soluble and fixed, like strychnine and codeine, which are crystallisable; and others, again, being solid and volatile, like cinchonine. From hence he proceeds to the consideration of their ultimate composition; their power of exchanging one or more equivalents of hydrogen for alcoholic radicals without altering their chemical properties, although their physiological actions are altogether changed; their solubility in different *menstrua;* their combinations with acids or salts; the actions excited in them by polarised light, heat, and electricity; the remarkable actions which the halogens exert on them—under which heading he notices the important *Recherches sur les Anilines Chlorées,* recently (1869) published by his friend, M. Jungfleisch; the phenomena of their oxidation; and, lastly, the action of acids and of caustic potash upon them. The author concludes this chapter with the admission that, as yet, we have no definite insight into the manner in which the natural alkaloids are produced. He thinks it probable that, under the influence of the forces which hold sway in the vegetable tissues, the ammonia, either with or without the elimination of water, unites with non-nitrogenous compounds, and thus gives rise to their formation.

The next chapter, which treats of the Physiology and Therapeutic Action of the Organic Bases, contains an excellent summary of a somewhat extensive subject. The arrangement is on the botanical system, the bases being classed under the families from which they are obtained. Thus, under Papaveraceæ, he considers the opium alkaloids, morphine, codeine, narceine, narcotine, papaverine, and thebeine; under

Solanaceæ, atropine, daturine, hyosciamine, and nicotine; under Leguminosæ, igasurine or eserine; under Umbelliferæ, conеine or conicine; under Ranunculaceæ, aconitine; under Loganiaceæ, strychnine and brucine; under Rubiaceæ, quinine, cinchonine, and caffeine; and under Colchicaceæ, veratrine and colchicine. In an appendix to this chapter (which contains valuable bibliographical notices of each alkaloid) the writer refers to the physiological modification which an organic base undergoes when a radical, as ethyl, is substituted for an atom of hydrogen. The only illustrations of this important principle that he gives are taken from the memoirs of MM. Pelissard, Jolyet, and A. Cahours on the Physiological Action of Ethylamine and of Iodide of Diethyleonium as Compared with that of Conеine; and he is apparently ignorant that in this special line of inquiry Great Britain is somewhat ahead of France.

The concluding chapter, which treats of the Toxicology of these compounds, terminates with a useful practical table, such as is used in the Paris School of Pharmacy, showing the special reactions furnished by morphine, codeine, narcotine, strychnine, brucine, nicotine, and conicine.

NEW BOOKS, WITH SHORT CRITIQUES.

The Surgeon's Vade Mecum: a Manual of Modern Surgery. By Robert Druitt. Tenth edition. London: Henry Renshaw and J. Churchill and Sons. Pp. 823.

*** The tenth edition of this, which has been well called "the model manual" of Surgery, appears in good time for the convenience of the student. To him, as to the Practitioner, it commends itself by the labour and thought which in successive editions has been expended on it, and that so used as to condense rather than extend the volume. The present edition has been carefully revised by Professor Wood, of King's College Hospital, which in itself is a guarantee for the accuracy of the contents, especially in what relates to the combination of Anatomy and Surgery. The illustrations have been carefully weeded—some of the old rejected, and new ones substituted. The part relating to the Operations of Surgery has been revised with especial care; but were we to select the portions of the volume which give us most pleasure, we should say certain of the passages relating to the Principles of Surgery and the Appendix of Formulæ. The breadth of view displayed in the former is refreshing in these days, when all men follow in the track of, and swear by, one great master, who alone is supposed to be infallible; whilst the latter are to a great extent the offspring of great Physicians and Surgeons of bygone days, tried and tested by them, and here handed down to us.

On Hernial and other Tumours of the Groin and its Neighbourhood. By Carsten Holthouse, F.R.C.S.E., Surgeon to the Westminster Hospital and Lecturer on Surgery at its Medical School, etc. London: J. Churchill and Sons. Pp. 167.

*** To many it is well known that for long Mr. Holthouse has devoted much attention to the subject of rupture, and especially to the diagnosis of these from other tumours of the groin. He has here made over to us the results of his accumulated experience in an exceedingly interesting and equally unassuming work. The plan adopted is to consider first the various kinds of hernia, as to their modes of exit, their sac contents, and their Surgical condition. Next he discusses various non-hernial tumours; solid tumours of the groin, scrotum, and labium; fatty tumours; fibrous tumours; glandular tumours; fluid tumours (serous, sanguineous, and purulent); diffused and circumscribed tumours. The final chapter is devoted to the radical cure of hernia by operative procedure. The author forcibly protests against the too-prevalent practice of herniotomy in cases which, though temporarily irreducible, are unaccompanied by symptoms of strangulation.

*** Recent numbers of the *New York Medical Record* contain some excellent lectures on Nervous Diseases, by Dr. Meredith Clymer, who has devoted much attention to the subject. Those on *Charcot's* and shaking palsy are peculiarly valuable.

On the Etiology and Prevalence of Diseases of the Heart among Soldiers. By Arthur B. R. Myers, Assistant-Surgeon Coldstream Guards. London: John Churchill and Sons. Pp. 92.

*** As a memorial of one who was universally respected and beloved in the Army Medical Department—its late head, Mr. Alexander—a very considerable sum of money was collected; his bust was placed in Netley Hospital; but a sum remained over and above, the interest of which was, the subscribers agreed, to be devoted to a prize given every three years for an essay on some Medical subject relating to army practice. Mr. Myers has been the first successful candidate, and his essay here published is a valuable contribution to military Medicine. It has been abundantly shown that heart disease is exceedingly prevalent in the army, and that much invaliding is due to its existence to such an extent. Further, the ordinary causes of heart disease among the civil population—rheumatism and Bright's disease—are not exceptionally common, but rather the reverse; and many of the men having heart disease have never had rheumatism. From an exhaustive analysis it is shown that this prevalence of heart and aortic disease must be due to military equipments. Of these, some lay most weight on one thing, some on another, Mr. Myers fixing on the tight collar of the tunic as the great *fons et origo mali*. Carefully written and well argued, the essay will well repay perusal.

A Manual of Medical Diagnosis; being an Analysis of the Signs and Symptoms of Disease. By A. W. Barclay, M.D., F.R.C.P., Physician to St. George's Hospital, etc. Third Edition. London: John Churchill and Sons. Pp. 669.

*** The present edition of Dr. Barclay's excellent manual has been considerably enlarged, and it has further been altered in accordance with the new nomenclature adopted by the Royal College of Physicians, but its scope remains the same. It is a work intended to facilitate the student's practical study of disease, to enable him to estimate aright the various signs and symptoms which present themselves to his notice—and this it does well. Nevertheless, there are certain subjects which we would have been glad to see more fully discussed. The temperature of disease has now been so fully studied, and its value so generally admitted, that some more detail in dealing with it would not have come amiss. There is a chapter in Dr. Barclay's book which we have always considered of especial value to the student, even though, from the nature of the case, it must of necessity be crude and imperfect. We refer to the chapter on the special indications afforded by different organs, secretions, etc., and this we are glad to see retained and improved. Undoubtedly, the present edition will maintain the high character the work has acquired for itself, and which it amply merits.

Advanced Text-Book of Zoology for the Use of Schools. By H. Alleyne Nicholson, M.D., D.Sc., and C., Lecturer on Natural History in the Medical School of Edinburgh, etc. London: Blackwood. Pp. 340.

*** It is no long time since we had occasion to notice somewhat favourably a manual of zoology by the present author. The work was of a more advanced character than is the present one, which is intended as a school-book rather than one for the special student. We are well pleased to see something of the kind, for it is long since any good school-book on Natural History appeared—indeed, we remember nothing later than Paterson's "Zoology," which is nowadays miserably inadequate. It is, indeed, in zoology that our ordinary text-books show themselves most unmistakably inferior to those of foreign writers. Thanks to an American, we have a translation of Von Siebold; but we have no book to equal Kner's "Zoologie," or Leunis' "Synopsis." At last we seem to be awaking; and Rolleston's book, with those of the present writer, give better promise for the future. In his school-book Dr. Nicholson has wisely, we think, devoted more space than usual to the invertebrate group of animals; they are easiest of access, and may most conveniently be studied practically—the only way to give children, and even students, a vivid interest in this most captivating domain of science. In the lower divisions of the animal kingdom the author has mostly followed Huxley, whose lectures on the subject, published in these columns, have rarely been equalled, and never surpassed.

The British and Foreign Medico-Chirurgical Review. No. cxii. October, 1870.

*** Under its new editorship the *British and Foreign Medico-Chirurgical Review* is maintaining its high standard of excellence. The present number begins with an article on Sanitary Organisation in England, which will repay careful reading. In brief, the reviewer recommends the adoption of parochial unions, in some cases with reformed boundaries, as ordinary areas of health management. These are to be presided over by county Boards, at which the unions are to be represented, and the whole organisation is to be under a central authority. It is well known that the present Medical Officer of the Privy Council objects to any authority, such as a county Board, intervening between the areas of health management and the central government, on the ground that such an intermediate authority would "intercept communication, and diminish the force of stimulation."

We are glad to see that the *Review* makes a sturdy protest, and advances some telling arguments against "the central idea"—"that the motive power of local action must be governmental dictation." We must refer our readers to the article itself to learn how the reviewer applies his system to the large towns. The second is a capital article, from a literary as well as a Surgical point of view, on Mr. Le Gros Clark's Lectures on Surgical Diagnosis, characterised by the reviewer as an essentially "safe book" and "prudent reading." An article on the Physiology of Respiration is signed "W. H. Broadbent." Besides reviews and book notices, and chronicles of the Medical sciences, there are original communications by Dr. John Ogle, Dr. Gavin Milroy, and Dr. J. S. Clouston, and Dr. Greenhill continues his contributions to Medical Literary History. We are glad to record our opinion of the excellence of the work contained in this number of the *Review*. It is the only English Medical quarterly, and it deserves, from its high tone and the fairness and talent with which it is conducted, a large amount of Professional support.

GENERAL CORRESPONDENCE.

LADY MEDICAL STUDENTS.

Letter from Dr. Robert Barnes.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your last number you express "regret at hearing that the question of the admission of women to one of our London Medical schools has been again raised; and that the authorities of St. Thomas's Hospital have been requested to receive two ladies as Medical students." Permit me to say that one lady has applied to be so admitted; and that she has been informed that the arrangements of the Medical school are not adapted to the reception of female students.

I am, &c. Robert Barnes, M.D.,
Dean of St. Thomas's Medical College.

31, Grosvenor-street, October 11.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.

Letter from Mr. James Hardie.

[To the Editor of the Medical Times and Gazette.]

Sir,—At a meeting of this Association, held yesterday, the inclosed resolution was unanimously adopted. Will you be good enough to give it insertion as a paragraph in your next issue. I am, &c.

September 22. James Hardie, Hon. Sec.

"That this Association has heard with much regret of the recent action against Dr. Stott, of Haslingden, for alleged malpraxis, and expresses its sympathy with that gentleman for the trouble and annoyance which, in spite of a verdict in his favour, he has doubtless incurred, seeing that, in the opinion of this Association, the treatment pursued was most skilful and scientific."

SICK LEAVE FOR ARMY MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—You will deserve the thanks of all officers in the Army Medical Department if you succeed in the effort which you commenced last week of removing the injustice which now afflicts all of us who have lost their health in the service, by compelling us to go on half-pay at the expiration of six months' leave on Medical certificate, if not fit for duty at home or abroad. Medical officers, incredible as it may appear to the War Office authorities, are just as strangely and wonderfully made as other men are, and why their enlarged livers and spleens, sun-burned brains, or malarious leucocythemia should be perfectly cured in six months, or else ———! while the same ailments in military officers require at least eighteen months or two years for their eradication, is more than can be understood by Your puzzled correspondent,

October 13. Tropicus.

SURGEON TUSON'S BULLET EXTRACTOR.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your paper of August 6 there is a "Description of a New Bullet Extractor," by Surgeon T. E. Tuson, Bengal Medical Staff. A similar instrument was invented by the late Assistant-Surgeon J. J. Cole, of the same service. Dr. Tuson's apparatus is identical in principle, even if not an actual copy of it. Mr. Cole was present with the troops organised by the late Sir Herbert Edwardes, preceding and during the Punjaub campaign of 1848-49. He was remarkable for his Surgical skill; and the rare confidence reposed in him by the hastily raised and semi-civilised levies on the frontier, contributed not a little to assist Lieutenant Edwardes in keeping his men together, and to gain their confidence in battle. The instrument was designed during the campaign, and was afterwards perfected, I think, by Weiss or Fergusson, in London. Mr. Cole died in April, 1855, and Dr. Tuson entered the service and was sent to the Punjaub in 1853.

I enclose my card, and also that of a brother officer, who corroborates all I have advanced—nay, more, he himself pointed out to Dr. Tuson some time ago the similarity of the instruments, so that there is the less excuse for the present publication.

I am, &c. A Surgeon-Major, Bengal Army.

Calcutta, August 31.

OBITUARY.

DR. AUGUSTUS MATTHIESSEN, F.R.S., F.C.S.

To the sudden death of the Professor of Chemistry to King's College, a notice of which appeared in the *Medical Times and Gazette* last week, is to be added on the present occasion the still more unexpected termination of the career of one of the greatest chemists of the day—Professor Matthiessen, the Lecturer on Chemistry to St. Bartholomew's Hospital, and formerly of St. Mary's Hospital. The deceased gentleman was found seated at his table in the laboratory of the former institution, with a bottle of prussic acid and another containing urate of ammonia, on the afternoon of Thursday, the 6th instant, to all appearance asleep, and it was not until his brother approached him, with the assistant, that it was found he had expired. Mr. W. Morrant Baker, his colleague, was in immediate attendance, but it was his opinion he had been dead four hours.

Professor Matthiessen, who had only been elected a Member of the Council of the Royal Society last year, was also a recipient of the royal medal for his researches on the electrical and other physical properties of metals and their alloys.

The earlier of Dr. Matthiessen's published researches related to the preparation of the metals of the alkaline earths. Having succeeded in establishing or perfecting methods for the production of these, he proceeded to institute a far more complete examination of their physical properties than had previously been attempted. These researches led to his investigation of the more important physical properties of the principal metals and their alloys. In some of the investigations Dr. Matthiessen associated himself with younger workers in science of approved ability, as Messrs. Holzmann, Box, and Vogt, and the results arrived at were included in a series of nine papers published in the *Philosophical Transactions*. They embraced the determinations of the specific gravities, the expansion due to heat, the thermo-electric properties, the electric conducting power, and the effects of temperature upon the electric conducting power.

The laws deduced from the results of Dr. Matthiessen's electrical experiments are now in constant use by telegraphic engineers. The causes of the great variations observed in the electric conducting power of commercial copper were first elucidated by him, and an important report was made by him on this subject in 1860 to the Government Committee appointed to inquire into the construction of submarine telegraph cables. His investigations of this subject resulted in very great improvement of the conducting power of the copper wire used in submarine telegraphy. Closely connected with this branch of his researches were the investigations which Dr. Matthiessen carried out for the Electrical Standard Committee of the British Association, of which he was one of the most active members. The resistance coils issued by that Committee, which have been very generally adopted as standard instruments, are all constructed of an alloy of platinum and tin, which, after a long series of experiments, Dr. Matthiessen recommended as specially fitted for that purpose.

Under the auspices of the British Association, Dr. Matthiessen undertook a few years ago the investigation of the chemical constitution of cast iron, and of the influence exerted upon the physical properties of that metal by the several other elements which generally occur in association with it. With these objects in view, he laboured most perseveringly in the preparation of iron in a chemically pure condition, and in

quant... sufficient to admit of the attainment of thoroughly trustworthy results in the study of the physical and chemical properties of the pure metal and of its alloys. His researches in this direction had recently been crowned with success, and the method of producing pure iron, which he elaborated, promises to be fruitful in interesting and important results.

Dr. Matthiessen's researches, published in the *Philosophical Transactions*, on the action of oxidising agents upon organic bases, and on the chemical constitution of narcotics (the latter investigation in conjunction with Professor G. C. Foster), furnish proofs of the success of his labours in organic chemistry. The results published in the *Proceedings* of the Royal Society of the most recent researches by the deceased in this branch of chemical science, show that he had entered upon a line of investigation as productive of interesting and important results as any which he had pursued. He established an intimate relation between the organic bases, morphia and codeia, and showed that when either was treated with hydrochloric acid, a new base was produced, which he called apomorphia, and which, though only differing from the powerful narcotic morphia by the elements of water, possesses the very distinct characteristics of a most powerful emetic. The substance known as papaverine, hitherto regarded as a distinct organic base, was one of the last subjects occupying his mind, which promised to yield results of considerable interest.

It was well observed by the President of the Royal Society, when presenting Dr. Matthiessen with the gold medal, that his researches were distinguished as well for their diversity as for their uniformly complete and trustworthy character. The deceased, who was unmarried, had only reached his 40th year.

NEW INVENTIONS.

PATENT SURGICAL SILK CORD.

We have received samples of a Surgical silk cord, manufactured for Arnold and Sons, 35 and 36, West Smithfield, London. It is of a plaited texture, very strong, and is free from all dressing and colouring matter. It appears not to twist or curl when used, like the ordinary silk. It may be had in hanks or wound on a tablet to fit the pocket-case.

INVISIBLE POSTAL INK.

We have received a postal card with a line written in an ink which is invisible until heated; it then comes out strong and black, more so than ordinary ink. It is intended to be used for messages by means of these cards, and promises to be useful. The name is, Luntley's Invisible Postal Ink, and is to be procured at 30, Fore-street, E.C.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, October 6, 1870:—

Rickards, Edwin, University College Hospital.
White, Barrington Sayer, King's College, London.

As an Assistant in Compounding and Dispensing Medicine:

Clark, Walter Beales, Leicester.

The following gentlemen also on the same day passed their First Professional Examination:—

Bracey, Herbert Richard, Birmingham.
Ransford, Thomas Davis, Guy's Hospital.

MILITARY APPOINTMENTS.

26th Foot.—Staff Assistant-Surgeon George Edward Dobson, M.B., to be Assistant-Surgeon, *vice* William Carpenter, M.D., appointed to the Staff.

46th Foot.—Staff Assistant-Surgeon George Traynor, to be Assistant-Surgeon, *vice* William Fletcher, promoted.

64th Foot.—Staff Surgeon James Bonnyman, M.D., to be Surgeon, *vice* Francis Odell, deceased.

Medical Department.—Staff Surgeon-Major Thomas Best, to be Deputy Inspector-General of Hospitals, *vice* Benjamin William Marlow, M.D., who retires on half-pay; Staff Assistant-Surgeon John Goodwin, to be Staff Surgeon, *vice* Staff Surgeon-Major Thomas Best, promoted; Staff Assistant-Surgeon James Bonnyman, M.D., to be Staff Surgeon; Assistant-Surgeon William Fletcher, from 46th Foot, to be Staff Surgeon, *vice* Staff Surgeon William Wellington Poole, deceased; Assistant-Surgeon William Carpenter, M.D., from 26th Foot, to be Staff Assistant-Surgeon, *vice* George Edward Dobson, M.B., appointed to 26th Foot.

BIRTHS.

Cameron.—On October 6, at 16, Fellow's-road, South Hampstead, N.W., the wife of Dr. Cameron, of Essequibo, British Guiana, of a son.

Debenham.—On October 5, at Presteigne, Radnorshire, the wife of Horace K. Debenham, Esq., of a daughter.

Kirk.—On September 6, at 13, Maximilian-strasse, Vienna, the wife of J. W. Kirk, M.D., of a son.

Wookey.—On October 7, at Potter's-bar, Middlesex, the wife of James Wookey, Surgeon, of a daughter.

MARRIAGES.

Du Pasquier—Owen.—On October 6, at Christ Church, Ramsgate, John McMahon Du Pasquier, Esq., Charles-street, St. James's, to Adamina, only daughter of William Owen, Esq., Clifton Lawn, Ramsgate, and granddaughter of Adam Baildon, M.D.

Helm—Shearme.—On October 8, at Stratton, Cornwall, George F. Helm, B.A., M.D., to Catherine E., daughter of the late Edward Shearme, Esq., of Stratton.

Turnbull—Oliver.—On October 5, at Borthaugh, Roxburghshire, N.B., P. S. Turnbull, M.D., Her Majesty's Indian Army, to Mary, second daughter of George Oliver, Esq.

Tyley—Wollen.—On September 20, at Wedmore, Somerset, Richard Purnell Tyley, M.D., etc., to Elizabeth, daughter of Joseph Wollen, Esq., J.P., of the Hall, Wedmore.

Will—Shaw.—On September 1, at Trinity Church, Bangalore, Madras, George Elmsley Will, Assistant-Surgeon, Royal Artillery, to Mildred Anne, daughter of Major A. O. Shaw, late of the Madras Army.

DEATHS.

Howells, Thomas, M.B., at Kennington-cross, on October 5, aged 28.

Kino, William, M.D., F.R.C.S., at Kettlewell House, near Woking, Surrey, on September 29, in the 85th year of his age.

Matthiessen, Augustus, Ph.D., F.R.S., at St. Bartholomew's Hospital, suddenly, on October 6, in his 40th year.

Turner, Henry, Assistant-Surgeon, Scots Fusilier Guards, third son of the late Edward Turner, Esq., of Sherborne, Dorset, at Ards Cashelmore, Ireland, on October 4.

Vardy, Joshua Lambert, at his residence, 16, Stamford-street, on October 7, aged 70.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Birkenhead Borough Hospital.—Assistant House-Surgeon. Applications and testimonials to the Chairman of the Weekly Board, on or before the 18th inst.

Brighton and Hove Dispensary.—Resident House-Surgeon; must have both Medical and Surgical qualifications. To the "Chairman of the Committee of Management," on or before October 31. Election on Dec. 6.

Bristol Royal Infirmary.—Assistant House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 12.

Charing-cross Hospital.—Surgeon-Dentist; must be a Fellow or Member of the Royal College of Surgeons of England. Applications and testimonials to the Secretary on or before the 26th inst.

Derbyshire General Infirmary.—House-Surgeon; must be M.R.C.S. Lond., Edin., or Dublin. Applications and testimonials to the Secretary, at Derby, on or before November 5.

Dorset County Hospital.—House-Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to the Chairman on or before October 19.

Dursley Union.—Medical Officer for the Third District of this Union. Candidates must be duly qualified and registered. Applications and testimonials to Mr. G. Wenden, Clerk to the Guardians, Dursley, on or before October 26. Election the following day, at 12 o'clock.

General Hospital, Birmingham.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials, under cover, to the House-Governor and Secretary, on or before October 27. Election on November 4.

Halifax Infirmary and Dispensary.—Assistant House-Surgeon. Applications and testimonials to Mr. Jukes, House-Surgeon, Infirmary, Halifax, on or before the 25th inst.

Hospital for Women, Soho-square.—House-Physician; must have a Medical or Surgical qualification. Applications and testimonials to the Secretary, on or before the 21st inst.

Loughborough Dispensary.—Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before the 18th inst.

Morpeth Dispensary.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

National Dental Hospital, 149, Great Portland-street.—Dental Surgeon; must be Licentiates or Members of the Royal College of Surgeons. Applications and testimonials to the Hon. Sec. on or before the 19th inst.

Queen Adelaide's Dispensary, Pollard-row, Bethnal-green.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Rev. T. Peckston, 260, Cambridge-road, E., on or before November 1.

Queen's Hospital, Birmingham.—Resident Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to the Secretary on or before October 20th.

Royal Free Hospital, Gray's-inn-road.—Junior House-Surgeon. Applications and testimonials to the Secretary on or before the 26th inst.

St. Saviour's Union, Surrey.—District Medical Officer for the Third and Sixth Districts of this Union. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. James J. Blake, John-street West, Blackfriars-road, S.E., on or before October 20. Election the same day.

Whitechapel Union.—Resident Workhouse Medical Officer. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Vallance, Union Offices, Charles-street, Whitechapel, on or before November 6.

POOR-LAW MEDICAL SERVICE.

⁂ The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bishop Stortford Union.—Mr. C. Jenkyns has resigned the Pelham District; area 9713; population 2146; salary £92 per annum.

Bury Union.—The Pilkington District is vacant; area 5468; population 12,304; salary £50 per annum.

Dursley Union.—Mr. John Hall has resigned the Uley District; area 6410; population 2,471; salary £60 per annum.

Forehoe Incorporation.—Mr. John T. Tallent has resigned the Second District; area 8441; population 2726; salary £50 per annum.

Kingston Union.—Mr. J. T. Rowland has resigned the Moulsey District; area 1380; population 2026; salary £45 per annum.

Poole Union.—The First District is vacant; area 100; population 6665; salary £80 per annum.

Wigton Union.—Dr. Taylor has resigned the Caldbeck District; area 29,280; population 2632; salary £14 per annum.

APPOINTMENTS.

Brighton Parish.—Lewis C. Badcock, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Western District.

Malmesbury Union.—Charles W. Pitt, M.R.C.S. Eng., L.S.A., to the First District.

Narberth Union.—George Richards, L.R.C.P. Edin., L.S.A. Lond., L.F.P. and S. Glas., and L.M., to the Begelley District.

Whitby Union.—John Lightbody, M.D., L.R.C.S. Edin., L.S.A. Lond., to the Fylingdales District.

University Intelligence.—The Professor of Anatomy in the University of Cambridge commenced his course of lectures on the 12th instant. Those on Anatomy and Physiology will commence on the 20th inst. The Downing Professor will deliver a course of lectures on Materia Medica, Pharmacy, and Therapeutics, commencing Tuesday, the 25th instant.

Queen's University in Ireland.—Her Majesty has been pleased to appoint the Most Hon. Charles William Marquis of Kildare, eldest son of the Duke of Leicester, and Baron Kildare in the peerage of the United Kingdom, to be Chancellor of the Queen's University, in the room of the Earl of Clarendon, deceased.

Dr. J. Burney Yeo has been elected President of the King's College Medical Society for the ensuing year.

The opening of the session at Queen's College, Birmingham, was signalised by a *conversazione*, which, we believe, was arranged by Dr. Balthazar Foster. A local paper describes it as a complete success.

The first meeting of the Session of the Association of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday, October 15, at 7.30 p.m., when the President, Dr. Druitt, will give an address "On the Sanitary Topics of the Day."

Presentation.—Dr. Humby has been presented with a handsome oak writing-case by the poor of Bournemouth, in recognition of his labours and kindness to them while Resident Medical Officer of the Dispensary.

Scarlatina having lately been prevalent at Maidstone, the Medical Department of the Privy Council have communicated with the local Board who have appointed Mr. F. Barham, M.R.C.S. Eng., Medical Officer of Health.

Naval Medical Supplemental Fund.—At the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 11th inst., Sir Edward Hilditch, Inspector-General, in the chair, the sum of £85 was distributed among the various claimants.

Bequests, etc.—John Ivatt Briscoe, Esq., M.P., bequeathed £1000 to each of the following institutions, viz.:—The Victoria Hospital, the Surrey County Hospital, the Surrey Dispensary, King's College Hospital, London Fever Hospital, St. Mary's Hospital, St. Mark's Hospital, and Cancer Hospital; and £500 to each of the following, viz.:—The Middlesex Hospital, the Consumption Hospital (Brompton), the Convalescent Hospital (Weybridge), the City Orthopædic Hospital, and the Hospital for Sick Children. The Duke of Marlborough has presented £114 to the Radcliffe Infirmary, Oxford, being the amount of fees received from visitors to Blenheim Palace and Gardens during the past year. "Anonymous" (a lady) has given £500 to the East Suffolk Hospital, Ipswich.

Climate of Wagga-Wagga.—To those who are inclined to curse the climate of England we commend the following extract from the *Wagga-Wagga Advertiser* of June 29:—"Since Friday we have had the most unpleasant weather that has marked the season. Cold, raw, dark, damp, cheerless mornings; drizzling, mizzling, chilly days, marked by sooty, drifting clouds overhead; and a wild, gusty, marrow-piercing wind blew, so heavily charged with moisture that it saturated the clothing without the aid of perceptible rain. The nights have been of inky blackness, and characterised by heavy pelting showers, carried along by howling gusts that drove the rain into one's face with the force of shot. During the whole of Monday night the wind howled and raged with hurricane fury, driving before it in wild tumultuous disorder piles of densely-packed clouds, laden with snowdrift, as the keen cutting influence of the gale too plainly indicated. The quantity of rain precipitated along the valley of the river has not been great, the clouds being generally high, and moving along under the influence of distant attraction towards the south-east, where we have no doubt great quantities of snow have been deposited upon the mountains stretching from the Boogong country above the Tumut to Tumberumba."

Poisoning by Croton Oil.—A child, 13 months old, named Gallagher, at Sydney, has been poisoned by croton oil contained in a liniment prescribed by Dr. W. J. Anderson. The liniment contained one drachm of croton oil to fifteen of soap liniment, and it is estimated that the dose was two minims and a half, which proved fatal in six hours. The child's father, who administered it, could neither read nor write.

Citric Acid in After-Pains.—Dr. Chagnon recommends citric acid for the pain following labour, declaring that it has never failed in his hands. He gives five grains in two or three ounces of water every five hours. It acts as a nervine and as a preventive of inflammation.—*Boston Journal*, September 8.

Hypodermic Employment of Ammonia in Collapse.—Dr. Wake reports a case of collapse from uterine hæmorrhage, in which the pulse ceased to be felt at the wrist during an hour. He injected a few minims of strong ammonia over the sternum, and repeated the operation three times on other parts of the body. The patient speedily rallied and made a good recovery, although the treatment was followed by four frightful sores.—*Boston Journal*, September 1.

A case of infantile syphilis, said to have been conveyed with the virus of inoculated small-pox, which produced secondary symptoms in the child, has some bearing upon the discussions concerning vaccination, and the asserted transmission of loathsome diseases. The child had conveyed the disease to the suckling mother, who had also infected her husband. There was no apparent motive for misrepresenting the history of the case, which was independently confirmed by the testimony of neighbouring persons, not related to either party. It was acknowledged to be of rare occurrence.—*Annual Report of the Hankow Medical Mission, by F. Porter Smith, M.B.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. S. K. Cotter, St. Helena.—Your letter and inclosure received, with thanks.

T. C. D.—The report as to Surgeon-Major Tufnell being about to proceed to the seat of war as Medical Director of the Franco-Irish Ambulance is, we believe, utterly without foundation.

Efraim.—We do not think there is any possibility of your obtaining a diploma from any British Medical authority without pursuing a regular course of Professional study.

E. J. Hermon, M.B.—We believe the statement (to which we have lately more than once alluded) that vacancies in the Army Medical Service will be offered for competition next February, to be authentic. The number, however, will depend upon contingencies which may arise between this and then.

L. M.—We regret as much as you do the necessity of delivering the *Medical Times and Gazette* to our subscribers unstitched. Under the new Postal Act, amongst other regulations, no publication is deemed a newspaper unless it "be printed on a sheet or sheets unstitched," and this regulation must be complied with in order that our subscribers may have the benefit of the reduction in postage to one halfpenny.

Sydenham.—We are sorry your queries were overlooked at the time. 1. We should say that the result would depend on the portion of the gland affected. If the passage is clear, and the tissue not wholly destroyed, we see no reason for the supposition, and we do not know a case in point. 2. We fear you could not make the extra charge without special arrangement with the guardians. Make it part of your next agreement.

B. M.—Get, if you can, private introductions, which, of course, you will use to the best advantage. Otherwise, call on the senior Practitioner in the place, and leave your card, with a note containing a summary of your Professional history and qualifications and the line of practice you intend to adopt. The full rights of *fraternité* and *égalité* will then doubtless be conferred upon you.

T. C., Guy's Hospital.—The registration of students will be brought to a close at the College this day (Saturday).

Australian Wine.—The *Sydney Mail* of July 16 has been forwarded to us, and we are glad to see the account of the exhibition of colonial wine at the Agricultural Society's meeting at Sydney. There were 138 samples in competition from Bukkulla in the north to Albury in the south, and it is clear, from the award of the judges, that the wines of the Messrs. Wyndham, of Bukkulla and Dalwood, N.S.W., justify the high character we gave of them in the *Medical Times and Gazette* of July 9. The wines of Messrs. Cox, of Wimbourne; Adams, of Albury; Gillard, of Norwood; Doyle, Kelly, and Sir W. M'Arthur, of Camden-park, were very highly rated in the judges' award.

Steel Pills.—E.—If the steel pills cause no blackening of the motions, we can only repeat our advice that they should be tested by being immersed in water at 99° F., to see if they are soluble. If not soluble, they pass, of course, as foreign-bodies, without doing good or harm. With regard to the *Ferrum redactum*, our own experience leads us to believe that it is best given in the form of lozenge *immediately* after food. If given so as not to be well mixed, it seems to irritate the rectum extremely. One of the most efficient steel preparations we learned from a former Physician to St. Bartholomew's Hospital. It was composed of purified iron filings and common yellow soap. E. may consult a work by Dr. Draper on the medicinal preparations of steel.

Ruse.—The Board of Guardians appoint; but the appointment must be submitted to the Poor-law Board for their approval.

Pupil.—The matriculation fee is one guinea.

A New Member.—The qualifications may be sent to the Registrar, together with the fee of five pounds; personal attendance is not absolutely required.

L. F. P. and S. G.—The qualification is regarded by the authorities as a Surgical one.

Student is bound to register in the case of illness, or special application should be made for time.

Mater.—1. The prejudice is founded in ignorance: there is no such danger. 2. There is no evidence to support the allegation.

Medical Club.

*** We have been requested by the Secretary of the Medical Club to publish the following statement:—

"This Club, which for four years has been growing, proposes now to take a suitable building entirely to itself. At the general meeting of the members held on Wednesday, Dr. Lory Marsh, the Hon. Secretary, stated that he had secured a refusal of the house in Pall-mall, last occupied by the Union Bank, and facing the United Universities' Club. The sum necessary to purchase and furnish it is proposed to raise amongst the members on debentures, at 5 per cent., of £25 each, secured by a conveyance to trustees of the lease, fittings, etc. If the Profession is at all desirous of maintaining, as a club of its own, one which may rank with similar establishments of the first class in town, the amount required (£5000) will certainly not be long in being subscribed.

Licensed.—The following is the 58th clause of the Act:—"Provided always and be it enacted, that when any house is licensed to receive less than eleven lunatics, it shall be lawful for any two commissioners, or any two of the visitors of such house, if they shall respectively so think fit, by any writing under their hands, to permit that such house shall be visited by a Physician, Surgeon, or apothecary at such intervals more distant than twice in every week, as such commissioners or visitors shall appoint, but not at a greater interval than once in every two weeks."

Passages from the Diary of a Late Physician.—Mr. Warren, we believe, was originally intended for the Medical Profession. He was articled to a country Surgeon; but never "entered" at any Medical school. He is now a Commissioner in Lunacy for trying cases of alleged insanity.

Colonial Qualifications.—The *Melbourne Age* has a sharp and able leader on the resolution passed by the General Medical Council making it necessary for a graduate in Medicine of the University of Melbourne, even though he be duly registered, to pass another examination in England before he can be admitted on the General Register. The *Age* is exceedingly indignant that a duly qualified Colonial Physician should be required to reside a year in England before he can even present himself for examination there. This is the way in which the *Age* puts it—

"The case, then, of the unlucky student of Medicine at the Medical school here is simply this: After graduating either as M.B. or M.D. at Melbourne, he may register his qualification for practice at the Medical Board of Victoria. He will then be eligible for practising the art of Medicine within the colony of Victoria, and no more. Only by some act of grace or indulgence will he be permitted to settle in any other portion of the British empire. Should he desire to venture into other places within that empire—should he seek an opening in India or China, for instance, or a post as Surgeon of an emigrant vessel, chartered even by our own Agent-General, and subsidised by own colonial funds, to which he in taxation had himself contributed, he must be pronounced by imperial authority ineligible. To become eligible, he will require, first of all, to have his name and qualification inserted on the register of the British Medical Council. To obtain that registration what has he to do? He must proceed to England, remain there one year, pass another examination, and pay the fees. He will then, but never till then, be permitted to apply for a post as Assistant-Surgeon in the navy, in the army, in an emigrant ship, or in a whaler. Till then he will not be permitted to settle down as an honourable and legitimate Medical Practitioner in any nook or corner of the earth where the Union Jack is hoisted."

Is the *Age* quite correct in its statements?

The following addendum to Dr. Blake's paper on the Temperature of the Two Sides of the Body was sent too late for publication last week:—

"Prof. Sydney Ringer tells me that these observations have not been made by him, but, on the contrary, are rather opposed to his own researches on the point; for the other side of the question, I have since heard that Dr. Hollis and Mr. Holland Reid, of Bartholomew's Hospital, have seen in a long series of investigations a constantly recurring difference between the heats of the two sides of the body."—*E. T. B.*

R. N.—The double qualification is required.

Birmingham.—Dr. Fleming's introductory address at the Queen's Hospital School of Medicine appears *in extenso* in the *Daily Gazette* of the 6th inst. In moving a vote of thanks to Dr. Fleming, Dr. Heslop hinted that "negotiations were now in progress for the purpose of concentrating the whole of the Medical teaching in Birmingham."

Novel Mode of Advertising.—Provincial papers, it is known, have, under different headings, the news appertaining to different places where they circulate. In one paper of large circulation in a midland county, under the head of a certain town, the first paragraph of "news" runs thus:—"Patent medicines at W. B.'s (late O.'s) W. B."

Contagious Diseases Acts.—Reply to Mr. Worth.

(From a Correspondent.)

The main strength of Mr. Worth's argument is, that the use of the measure has not produced diminution of disease. This is a question *de facto*, and can be met by facts. Certainly if such investigation has not diminished disease it is a marvellous thing. Either the result has been taken too soon to test working, or the executive was bad or inefficient. Unless Mr. Worth's statement be proved, I do not believe it.

As to the question *de jure*—Has or has not the State a right to interfere with a traffic which vitiates the whole community, and destroys the well-being of innocent as well as guilty, and deteriorates the race!—no corrective investigation, carried out contrary to the taste of the subjects investigated, can be other than unpopular; the prostitutes of course protest. No general measure can avoid hardship to individuals. But whether is worse—that a few unnecessary and painful inquiries, even with personal scrutiny, should happen; or that, unchecked, this poison should widen secretly from generation to generation?

What, comparatively, is the cruelty of one woman in 1000 unjustly scrutinised, when seen in contrast with the ruined health, premature deaths of thousands of our people? And what if the scrutiny be carried beyond the ranks of avowed prostitutes into those border-land cases, where the worst evils might lurk most undetected? Is not the effect, on the whole, purgative and cleansing?

Prostitution has been carried on under the defence of husbands, and even fathers—at least we hear so; and if the sanctity of the authority of husband or father has been sacrilegiously used to make a covert for crime, I see nothing but a righteous Nemesis, if the State usurp temporarily the occupation of those defences.

A warrant or testimony of cure—not given to the woman, but recorded in police books—is surely as an exemption for a time from Medical scrutiny, and not, as Mr. W. assumes, "a warranted safe for use." If there is any deficiency in the Bill on this point it ought to be made good. What means he by—"compulsory on the Medical man to perform instrumental violation?" This surely is not true.

One practical effect on comparatively innocent women will be a wholesome dread of aping the freedoms and manners of avowed prostitutes. And if the spiritual-tenders would, instead of opposing the law, co-operate; and whensoever a poor woman is arrested in her course of misery and being healed in body, then eagerly use that oasis of her sirocco life, to win her and help her out to restoration, I would say this is the true coin.

Dupuytren.—You will find several similar cases recorded in the *Medical Times and Gazette*, Vol. XVIII. You will see busts of Sir Benjamin Brodie and Sir William Lawrence in the Hall of the College of Surgeons.

Bayswater.—The person who rivals Moses and Co. in the distribution of his handbills is, unfortunately, in possession of the diplomas stated. As requested, we have sent the inclosure to the College.

The Australian Medical Gazette advocates, in a leading article of its issue for July, the abolition of the office of coroner. It founds its argument in support of the abolition on various inquests which had lately been held in Melbourne by Dr. Youl. It enters at some length into several cases, chiefly of new-born children, in which the *Gazette* states pretty broadly that inquests were not only unnecessary, but conducted in an unsatisfactory manner. There may, or may not be, some favouritism exercised by the coroner in his selection of Medical witnesses. On this point we have before commented; but the law, at all events in England, gives the coroner the power of selecting "the Medical witnesses to give evidence before him," and this privilege is rarely abused. If it be so on any occasion, public opinion soon remedies the evil. There may be good grounds for the opinion of the *Gazette* in this particular case, but we cannot agree with our contemporary on the general question of the inefficiency and uselessness of the coroner's inquest, unless some more efficient mode of investigation be instituted. Here is the summing-up of the *Gazette*:—

"Perhaps, after all, the best remedy for the serious abuses so frequently complained of in connexion with the coroner's court would be to abolish the office. In Scotland, there is no such officer as coroner; and these functionaries have recently been dispensed with in the island of Trinidad. We have no hesitation in stating that, were the office of coroner abolished in this colony, and the duties transferred to the magistracy and police, who would have no direct pecuniary interest in multiplying inquests, such a reform would lead to an annual saving of many thousands of pounds, as well as to the improvement of public justice. Persons against whom there was no case would be less frequently placed on their trial, and the feelings of relatives less commonly outraged by unnecessary inquests and post-mortem examinations, as recently witnessed at Brighton and elsewhere."

A. M.—The College of Physicians has ceased to examine in arts, etc.; the "preliminary" of the College or Hall is considered satisfactory evidence.

Mr. Jackson.—Mr. South, the senior member of the Council of the College of Surgeons, is now engaged in writing a history of that institution.

GUY'S *versus* ST. GEORGE'S.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the abstract which you give of the introductory address delivered by Mr. C. Bader to the students of Guy's Hospital, you report him to have said—"I always shall remember with pleasure when, many years ago, one day, after having been in the elegant, highly-perfumed operating theatre of St. George's Hospital, with its fashionable students, I came into the old operating theatre of Guy's Hospital, the very sponges of the place seemed more grim and business-like, and infinitely more used-up."

As an old St. George's man, I cannot help thinking that Mr. Bader's sense of smell must have been, on that occasion, as perverted as his taste is now perverse and bad. It may be possible that the simple absence of such noxious odours as arise from the bursting of those crackers and explosive balls (with which the correspondents of the *Lancet*—"A Student" and "Discipline"—inform us the students of Guy's are in the habit of greeting their teachers) may have caused the vapour of ether or chloroform to appear as perfumes to the olfactory nerves of the lecturer. If not, will he kindly explain what he really did mean by the "highly-perfumed theatre of St. George's Hospital"? Perhaps he will also tell us upon what peculiar hygienic principles he, as a Surgeon—and especially an ophthalmic Surgeon—prefers a used-up sponge, and whether, by a "grim and business-like" one, he means a grimy one, which, in the opinion of most men, would be considered to have no business even in the old operating theatre of Guy's. After his recent experience, Mr. Bader himself must begin to feel that the manners of men of fashion, even for a student of Medicine, are preferable to the unmannerly conduct of a rowdy, though neither he nor any of us can wonder that students who hear their teachers scoff at the former should feel tempted and encouraged to approve the latter. Regretting that Mr. Bader should, like the sponge of his predilection, be so used-up for a means of extolling his own Hospital as to find no better than that of uttering and allowing to be published against the staff and students of another a sneering and senseless joke, which had neither truth for its foundation or wit for its excuse,

I am, &c. AN OLD ST. GEORGE'S STUDENT.

October 11.

COMMUNICATIONS have been received from—

Dr. J. N. VINEN; Professor TUSON; Dr. R. P. TYLEY; Mr. F. H. WELCH; Mr. S. L. PACKET; SYDENHAM; Dr. E. J. HERMON; E. T. B.; Mr. W. J. STOTT; AN OLD ST. GEORGE'S STUDENT; Mr. J. LEWIS; Dr. SUTTON; Dr. B. W. RICHARDSON; Dr. MARTYN; Mr. BRODHURST; Dr. CAYLEY; Mr. J. CHATTO; Mr. A. H. NEWTH; Mr. A. T. NORTON; Dr. BARNES; Dr. KIAK; Dr. WILLOUGHBY AROINO; Mr. J. LUNTLEY; Dr. COWDELL.

BOOKS RECEIVED—

Westminster Review—Barclay's Medical Diagnosis—Australian Medical Gazette, July—Moore on the Value of Quinine—Berwick on the Forces of the Universe—Thorley's Farmer's Almanack—Report of the Metropolitan Board of Works, 1869-70—Report on Measures Adopted for Sanitary Improvements in India from June, 1869, to June, 1870—Journal of the Scottish Meteorological Society—Report of the Association of Medical Officers of Health—Gee's Auscultation and Percussion—Dr. Taussig on the Roman Climate—Da Costa's Medical Diagnosis.

NEWSPAPERS RECEIVED—

Pharmaceutical Journal—Nature—The Shield—The North China Daily News—Bethnal-green Times—Birmingham Daily Post—Indian Medical Gazette—The Japan Mail—Birmingham Gazette—Medical Press and Circular—Stamford Mercury.

APPOINTMENTS FOR THE WEEK.

October 15. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. Meeting.

17. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

18. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

PATHOLOGICAL SOCIETY, 8 p.m. Mr. Spencer Watson, "Ghoma of the Retina." Mr. Christopher Heath, "Aneurism of Aorta." Dr. Crisp, "Hair from a Case of General Alopecia." Mr. Morris, "Renal Cyst," etc.

19. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

21. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 8, 1870.

BIRTHS.

Births of Boys, 1066; Girls, 1120; Total, 2188.
Average of 10 corresponding weeks, 1860-69, 1943·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	693	586	1279
Average of the ten years 1860-69	634·3	596·0	1230·3
Average corrected to increased population	...	...	1353
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	4	2	34	3	2	...	5	2	4
North ...	618210	12	6	51	1	1	6	10	2	5
Central ...	383321	2	...	12	...	1	1	1	2	6
East	571158	7	2	27	...	5	2	4	7	14
South	773175	2	1	68	5	7	3	3	6	6
Total	2803989	27	11	192	9	16	12	23	19	35

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·940 in.
Mean temperature	54·1°
Highest point of thermometer	68·6°
Lowest point of thermometer	43·6°
Mean dew-point temperature	50·0°
General direction of wind	Variable.
Whole amount of rain in the week	0·20 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 8, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Oct. 8.	Deaths Registered during the week ending Oct. 8.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2188	1279	68·6	43·6	54·1	12·28	0·20	0·51
Portsmouth ...	122084	12·8	63	37	76.2	33·4	51·7	10·94	0·45	1·15
Norwich	81087	10·9	47	51	65·5	43·2	53·3	11·84	0·45	1·15
Bristol	171382	36·6	122	106	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	32	18	67·7	41·8	52·7	11·50	1·21	3·08
Birmingham ...	369604	47·2	225	132	69·4	43·4	53·7	12·06	1·12	1·84
Leicester	97427	30·4	35	53	69·0	43·0	53·2	11·78	0·75	1·91
Nottingham ...	88888	44·5	42	40	70·1	41·6	54·3	12·39	0·85	2·16
Liverpool	517567	101·3	316	331	64·8	38·8	50·7	10·39	0·62	1·57
Manchester ...	374993	83·6	247	199	68·0	35·0	50·0	10·00	2·09	5·31
Salford	121580	23·5	96	48	70·0	36·5	51·1	10·61	2·49	6·33
Bradford	143197	21·7	71	58	63·6	43·8	52·7	11·50	1·60	4·06
Leeds	259527	12·0	78	120	67·0	40·0	52·3	11·28	1·43	3·64
Sheffield	247378	10·8	165	112	65·0	40·5	50·6	10·33	3·06	7·77
Hull	130869	36·7	79	44	...	...	...	...	...	...
Sunderland ...	100979	30·5	35	43	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	67	40	60·0	41·0	47·8	8·78	1·60	4·06
Edinburgh	178970	40·4	121	73	58·7	41·0	48·0	8·89	0·20	0·51
Glasgow	468189	92·5	318	212	59·2	34·6	46·8	8·22	0·15	0·38
Dublin (City, etc.*)	321540	33·0	150	112	67·7	39·8	53·9	12·17	1·73	4·40
Total of 20 Towns in United Kingd'm	7216325	33·8	4497	3111	76·2	33·4	51·6	10·89	1·18	2·99
Paris—Week ending Oct. 1	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Oct. 1	622087	167	...	285	...	...	53·4	11·88	...	...
Berlin—Week ending Oct. 6	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·940 in. The highest barometrical reading was 30·38 in. at the beginning of the week, and the lowest was 28·92 in. at the end of the week.

The general direction of the wind was Variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON METHOD OF STUDY IN THERAPEUTICS AND SOME ADDITIONS TO MEANS OF CURE.(a)

GENTLEMEN,—On meeting you for the new session, I have felt I could not do a more appropriate thing than bring to you one or two new remedies which may be directly applied in the cure of disease. I bring, therefore, a few such agents: one somewhat known as a remedy since my report upon its physiological action in 1863, but not sufficiently known—I mean the nitrite of amyl; the others unknown physiologically until this time—viz., the ethylates of sodium and potassium and the trimethylic and triethylic ethers. But, before I come to the description of these agents or intended agents of cure, I would spend a little time in explaining the best method of studying the action of chemical substances that are to be used as medicines.

In the earliest days of Medical art its rude cultivators began the very same study we in these more advanced days desire most earnestly to cultivate, the study of means of cure. When nothing was known at all about diseases except their dire effects, our first students collected herbs, and fruits, and flowers, and aimed to apply these to curative purposes. They began with the organic nature; later their followers went to the earth also, and brought in minerals, and earths, and metals for cure. In time there arises a war of classes of curers: Galen, who supported the old system of herbs, and fruits, and flowers, is opposed by the chemists, who, led by Paracelsus, introduce the earths, and minerals, and metals, and who begin to talk of calcinations, evaporations, sublimations, and the like. Thus, after Paracelsus, we have the schools of the Galenists and the chemists, and we have the preparations of Galenicals and chemicals in constant opposition. Both schools retain their existence because both contain, in a crude sense, some truth; and for centuries on centuries the representatives of these schools are the all-potent authorities in matters of therapeutics: they had a right to be the authorities, because they had and held all that the world possessed of knowledge of cure. What they possessed, however, was uncertain, and to themselves even unsatisfactory. It could not be otherwise, since the best remedies they had were used in empirical forms. Here was a disease, there was a medicine; give the medicine and the disease passes away. Sometimes, doubtless, the disease did pass away because of the medicine, for, as I have already said, there was often solid truth in the crude method; sometimes, doubtless, the disease did not pass away because of the medicine; sometimes the same disease seemed to pass away under many different medicines.

Thus came uncertainty as to the action of medicines. So long as the world was young and childish, and did not question the efficacy of received remedies, so long there was an implicit belief in remedies, both by those whose duty it was to administer and those whose fate it was to take. At last, the world growing wiser, doubts began to spring up respecting the efficacy of remedies, and, as the professors were themselves the first to doubt, the empiricisms of the fathers rapidly gave way.

It happened, unfortunately for the original process of cure, that, with the want of reliance upon it, there occurred no obvious mode of advancement. Chemistry, it is true, continued to progress, in due time recognised the Galenicals, absorbed them into her own craft, and began to lay her foundations in the cement of experiment. But chemistry was also crude for many long years; and until she advanced so as to be able to isolate substances and show particular chemicals as simpler parts of more complex bodies, she rendered little solid aid. And so there was a great gap in curative Medicine, a gap extending from the revival of letters, when mere beliefs got into the mill of experiment, until these days, when the mill of experiment itself has begun to work with less uncertainty, and to turn out results that can be relied upon as facts.

Meanwhile, nevertheless, Medicine had not been idle. Cast ashore with the rest of the shipwrecked of crude beliefs, she learned soon to build residences of her own by the side of the best of her rivals, while she invested in new enterprises, which, though not direct as means of cure, led to greater certainty of research. Thus, moving with the physicist, the naturalist, the microscopist, she struck out for herself the sciences of physiology, pathology, diagnosis, while she independently sustained, as a backbone of solidity, the science of anatomy. Then, as chemistry crept quietly on, Medicine followed the open paths, and, holding her own the while, asks chemistry to aid her grand and resistless intents.

Medicine, then, following up chemistry, and chemistry holding out substances which may be cures—substances no longer crude and uncertain, but of simple and of known elementary form, with known physical qualities prefixed and admitting of proof—Medicine slides once more, naturally, and this time scientifically, into the study of cure. Towards what does the study tend?

The chemist has discovered that for the physical construction of all material bodies there is a certain basic form, which can be modified by change of elementary constitution. For example, if we take water as having this basic constitution, HHO, we can substitute for one atom of the hydrogen an atom, say of potassium, when we get the compound substance KHO, potassa; or we can substitute for one atom of the hydrogen one of a compound radical, say the radical C_2H_5 (ethyl), when we have produced C_2H_5HO, common alcohol; or we can, with the same radical, substitute both atoms of the hydrogen of the water, when we obtain, instead of

$$\left.\begin{matrix}H\\H\end{matrix}\right\}O \text{ (water)},$$

$$\left.\begin{matrix}C_2H_5\\C_2H_5\end{matrix}\right\}O \text{ (oxide of ethyle or common ethylic ether)}.$$

Once more (and here we may proceed by direct experiment) we take a portion of common alcohol, absolute, and add to it pure sodium. There is free evolution of a gas, and a new compound is the product. The alcohol is composed of C_2H_5HO, and when the sodium is added, one atom of the hydrogen of the alcohol is removed, and is replaced by the sodium, the hydrogen making its escape; the product is C_2H_5NaO, ethylate of sodium. Thus proceeding from the type, water,

$$\left.\begin{matrix}H\\H\end{matrix}\right\}O$$

we can, by replacing one of the hydrogen elements with the radical C_2H_5 (ethyl), make

$$\left.\begin{matrix}C_2H_5\\H\end{matrix}\right\}O \text{ (alcohol)},$$

and by further replacing the remaining hydrogen of the alcohol with sodium, we can make

$$\left.\begin{matrix}C_2H_5\\Na\end{matrix}\right\}O \text{ (ethylate of sodium)}.$$

Having learned basic constitution of given bodies, and modifications of constitution, the chemist proceeds to identify his products, and to classify them by determining their physical qualities, their densities, reactions, and the like.

I cannot afford time to enter further in illustration of the chemist's work, and what I have done is enough for my purpose. Keeping in mind generally what the chemist can do, it is my object to ask how far the physiologist can follow in similar research. Can he, having learned the basic physiological action of a series of chemical bodies, approach to an approximation of modification of action, as induced by modification of chemical constitution.

In a report I read to the British Association for the Advancement of Science, at the Birmingham meeting in 1865, I pointed out, I believe for the first time, that this object was attainable; and continued research from that period until now confirms me in the belief.(b) It is in this line of research we, as curers, have to walk, in order to make our means of cure precise. The study implies the giving up of nothing that is old and true, it implies the taking up of nothing that is new and not true; but it carries with it all the old that is true, and it opens the way to new truth on a rational and precise method. We may here start confidently, yet not boastingly, towards rendering therapeutical science as perfect as anatomy, diagnosis, operative Surgery, or other of the more solid parts of our art.

I proceed from this point to indicate what lines of research we must follow in tracing out the action of a remedy by its constitution and properties; and as the study is elementary at this time, the description of early steps must needs be elementary too. The present must be patient, the future must be forgiving.

We have to embrace in our observations and experiments, when we investigate the action of any substance, five points—viz.,

The elementary, basic or radical composition of the substance

(a) Delivered on Tuesday, October 4, 1870.

(b) Report on the Physiological Action of Certain of the Amyl Compounds. *Transactions* of British Association for the Advancement of Science, 1865. P. 280. John Murray, Albemarle-street.

to be tested, and the changes of constitution to which it may be subjected;

The physical qualities of the substance;

The chemical stability of the substance;

The physical peculiarities of the animal body subjected to the substance;

The special action of the substance on special centres of the animal organism.

These points well worked out, and correct evidence respecting them well framed, we may claim upon them to formulate an uniform principle of action in respect to each substance submitted to investigation; and when on that formulated knowledge we prescribe the agent, we may know it will certainly produce a given result, under given conditions and circumstances which we may also know. At first all will seem complicate; after a time all will be clear and simple.

I would I could illustrate what I have to say from a large class of agents that have already been under physiological investigation. This is impossible; but I will try to proceed a little way, following the heads named above.

(A) *Elementary, Basic or Radical Composition and Change of Constitution.*—In our research, in its fulness, we should have to consider, under this head,—(*a*) the bodies formed on the simple or inorganic bases; (*b*) those formed on the known organic or radical bases; and (*c*) those formed on the unknown radical bases which help to constitute complex medicines, such as quinine. It would be most systematic to begin with inorganic compounds. It happens, however, I may almost say by accident, that the simplest compounds have not been those first studied; the compounds formed on the organic radicals have taken precedence, and I shall consequently treat of these in so far as I go.

If, then, we take an organic radical as a base, and proceed to try the effects of changes of chemical elementary composition upon it in respect to its action, we discover that although, through all series of changes, there is some uniformity of basic action, there are specific variations introduced into the action by the addition of new elements. This fact may be illustrated by reference to two radical bases—viz., ethyl C_2H_5, and amyl C_5H_{11}. On the table we have specimens of all the compounds formed upon these bases, respecting which I shall have occasion to speak.

The radical base ethyl yields us a steady narcotic base—that is to say, every compound formed upon it by the addition of a new element or elements shows in its action physiological narcotic power. The base itself is a gas. I have shown that upon the base we can construct alcohol, and ether, and ethylate of sodium, on the water type of chemical construction; but more than this can be effected: the radical can be made to combine with hydrogen, chlorine, iodine, bromine, sulphur, cyanogen, nitrogen; and compounds of hydrides, chlorides, iodides, bromides, sulphides, cyanides, and nitrites can be produced. So, having these compounds in our hands, and testing them as to physiological property, we can follow modification of action through modification of construction. Let us take a few illustrations of this kind, beginning with hydride of ethyl, as a very simple remove from the base.

The *hydride of ethyl* comes before us as a gas; it is composed of C_2H_5H, and has a vapour density of 15, compared with the vapour density of hydrogen, which, as the lightest of known gases, we take, for comparison, as unity. This hydride is insoluble in blood, and negative in its action on nervous matter, and hence it is not active either as an excitant or a narcotic: it must be inhaled in the proportion of from 30 to 40 per cent. in air, in order that it may produce any decisive effect. Then it produces temporary insensibility, by interfering with the respiratory process; it acts, in fact, like nitrogen, but possesses more determinate narcotic property. The insensibility it produces is gentle and deep, but it cannot be sustained. It owes its negative character to the hydrogen.

The oxide of ethyle or alcohol

$$\left.\begin{matrix} C_2H_5 \\ H \end{matrix}\right\} O$$

is, as we all know, a stimulant and narcotic. Exposed in small quantities to any sensitive surface of the body, it acts directly on the nervous system as a stimulant, and excites the action of the heart. Given freely, it induces deep narcotism; but as it is rapidly absorbed by the blood, large quantities of it are required before that saturation of blood occurs which is necessary for the narcotic condition. Hence, it is most difficult to render an animal insensible with the vapour of alcohol; and when even saturation is obtained, it is difficult to make the narcotism fatal with the vapour. I have seen an animal sleeping six hours in a narcotic atmosphere of alcohol, and recover afterwards without a bad symptom when it was removed into fresh air. We see in these facts the effect of making the base ethyl replace one atom of the hydrogen of water.

If we replace the second atom of hydrogen of water by another molecule of the radical ethyl, we obtain

$$\left.\begin{matrix} C_2H_5 \\ C_2H_5 \end{matrix}\right\} O \ (\textit{ether})$$

the rectified ether of commerce, a fluid having a vapour density of 37, a specific gravity of ·720, and a boiling point of 35° Cent., 95° Fahr. We have here a powerful narcotic, having less direct stimulating action than alcohol, and a quicker effect. Less soluble in the blood than alcohol, it may be administered by inhalation of its vapour, so as to saturate the blood, and then it plays the part of a narcotic. But it is wanting in required potency as a volatile narcotic, because it is too soluble. Blood at 100° Fahr. takes up ether in the proportion of 1 part in 572 before it is sufficiently saturated to cause complete narcotism, and we are obliged, therefore, in administering ether to keep up the saturation, by persistent administration, to the exclusion of much air. Thus, with ether we often produce symptoms of asphyxia and restlessness, and are obliged to stay our hand. Ether, therefore, is safe and troublesome: safe because it is difficult to saturate with it, troublesome because so much of the narcotic is required to produce saturation. In the phenomena produced by ether we see the effect of replacing two atoms of hydrogen by the base ethyl. We see in it, in fact, nearly the pure action of the base itself.

If we make chlorine combine with the base ethyl, we produce the *chloride of ethyl*—C_2H_5Cl. This body has a vapour density of 32, and it boils at 11° Cent., 52° Fahr. When inhaled (for it cannot be readily administered except by inhalation) it produces great excitation of the heart, followed by deep narcotism. Sparingly soluble in blood, the saturation necessary for narcotism is quickly reached, and we have presented to us an agent closely analogous in action to chloroform. Like chloroform, moreover, chloride of ethyl produces rigid muscular contraction as it narcotises; it also causes vomiting, and if pushed it kills rapidly, as chloroform kills, by arresting—first, respiration, and then the motion of the heart. It produces contraction of the extreme pulmonary vessels; it makes the right heart powerless, and the lungs bloodless, so that the column of blood that should always extend from the right to the left heart is broken in twain. We see in these phenomena the action of chlorine.

If with the radical ethyl we combine iodine we obtain the *iodide of ethyl* C_2H_5I, a fluid having a vapour density of 78, a specific gravity of 1·920, and a boiling point of 72° Cent., 162° Fahr. We have here, again, a narcotic, but with the narcotism there is great excitement of the heart and circulation, together with free glandular secretion. In the phenomena which lie outside the narcotism, the iodine is the efficient cause: it acts, like chlorine, on the nervous structures, and it acts, itself specifically, on the glandular system.

When with the radical ethyl we combine bromine we make the *bromide of ethyl*, or hydrobromic ether, C_2H_5Br., a fluid having a vapour density of 54, a specific gravity of 1·400, and a boiling point of 40° Cent., 104° Fahr. Here we have a narcotic which has many good physical qualities as a volatile narcotic. The bromide produces deep narcotism, the blood is quickly saturated with it, and the muscular excitement produced is slight. But still, though in a minor degree, like the chloride and iodide, it excites, causes vomiting, and has an action peculiar to itself, due to the bromine, of creating great dryness and irritation of the mucous surfaces.

On combining the radical ethyl with sulphur, we obtain the *sulphide of ethyl*, hydrosulphuric ether,

$$\left.\begin{matrix} C_2H_5 \\ C_2H_5 \end{matrix}\right\} S$$

a fluid having a vapour density of 45, a specific gravity of ·825, and a boiling point of 73° Cent., 163° Fahr., and sparingly soluble in blood. When we administer this substance the narcotism produced is rapid, without excitement; and in frogs the insensibility may be sustained for many hours without death. But with the sulphide there is this specific action, that, carried far, it induces paralysis of the nervous centres supplying the heart and the muscles of respiration, while the voluntary muscles for a time retain their activity; and when, by subcutaneous injection, all the muscular system is paralysed, recovery is announced (for even after this general paralysis there may be recovery) by returning power—first in the voluntary muscles, then in the respiratory muscles, and finally in the heart. We see in these phenomena the difference of effect that follows the

simple substitution, in an ether, of the element sulphur for the element oxygen.

If, lastly, we make the radical ethyl combine with nitrous acid, we obtain the *nitrite of ethyle*, $C_2H_5NO_2$, a fluid having a vapour density of 37·5, a specific gravity of ·917, and a boiling point of 18° Cent., 64° Fahr. This fluid forms with alcohol the common nitric ether, and when it is administered it produces, like all its allies, narcotism. But now with the narcotism there is induced a new series of phenomena; there is produced a general paralysis of those nerves which govern the contractile function of the bloodvessels. Thus there is suffusion of the face, if the vapour be inhaled in quantity, and rapid action of the heart; or, if the substance be taken in moderate dose, internally, there is diuresis. We see in these symptoms the specific effect of the introduction of the nitrogen compound in combination with the basic radical ethyl.

I have now given some illustrations of change of physiological action from modification of constitution from the ethyl series. I can follow out the same from the amyl series. Here is *hydride of amyl*, in which the radical amyl, C_5H_{11}, is combined with hydrogen, constituting $C_5H_{11}H$, a fluid having in a state of vapour negative narcotic properties, like hydride of ethyl; here is *amylic alcohol*,

$$\left.\begin{matrix} C_5H_{11} \\ H \end{matrix}\right\} O$$

a narcotic like common alcohol, but causing insensibility from a smaller dose, because it is sparingly soluble; here is *chloride of amyl*, $C_5H_{11}Cl$, a narcotic like chloride of ethyl, and causing, in a similar manner, muscular excitement, vascular contraction, and vomiting; here is *iodide of amyl*, $C_5H_{11}I$, a body capable of acting the same part as iodide of ethyl; and here is *nitrite of amyl*, $C_5H_{11}NO_2$, a body capable of inducing the same condition as nitrite of ethyl—viz., paralysis of the chain of organic nerves which supplies the contractile power to the bloodvessels. Between the actions of the ethyl and amyl series there is difference in regard to what I may call persistency of effect, the radical amyl being richer in carbon and hydrogen; but the modifications resulting from new compounds formed upon each base run in parallel lines.

Through whatever inquiries in therapeutics we have to pass in the future, the primary facts to be arrived at, in respect to each substance, are, the chemical characters and physiological actions of the base, in all cases where a basic element or radical exists. It seems clear that the base always plays a part of its own, modifying the action of the elements with which it may be united, but not destroying the action or preventing recognition of it. Thus, if we were prepared to follow the base ammonium through all its changes of constitution by combination, we should see a series of phenomena equally interesting and consistent as those we have seen to-day.

The base retains its own part; but it is worthy of remark that, in some cases of combination, the combining element or compound is itself so determinate that the action of the base may be obscured. This occurs to a large extent in the case of the nitrites I have spoken of, but it is most marked in the cases of the cyanides. In these, whether the base be an organic radical like ethyl or an element like potassium, the specific action of the cyanogen compound is the prominent fact.

The distinctive action of the elements themselves is a subject of curious and important interest. Hydrogen, a negative substance in some respects, is a carrier—if I may so speak—of the properties of other elements. You smell chloroform, and find it very sharp and pungent; the pungency is due to the chlorine. You smell tetrachloride of carbon, and you find the pungency almost *nil*; yet tetrachloride of carbon contains one proportion of chlorine more than chloroform, but then it has no hydrogen; its chlorine is all closely condensed round the carbon, and is comparatively inactive as an irritant, because there is no hydrogen to loosen it and give it freedom. You smell nitrogen, it is odourless; you combine it with hydrogen, and it is the pungent ammonia. You smell sulphur, and it is of little odour; you combine sulphur with hydrogen, and it becomes sulphuretted hydrogen or some other compound of villanous odour.

Oxygen seems to be in some sense a carrier, too, for it confers solubility on many substances; it may also become an excitant. Chlorine stimulates into vigorous action the centres of the nervous system which produce contraction of muscle; and nitrogen, so soon as it enters the body in combination, pervades the nervous system, creating the most peculiar modifications of function, changing, as it were, the whole nervous mechanism and motion.

(B) *Physical Qualities of Substances.*—The specific action of the elements remain, we must presume, always the same in respect to primitive power; but the intensity of action is greatly modified by the physical qualities of the compound in which they are conveyed. In other words, the physical qualities of a substance, as they determine introduction into the body, modify action. Thus we have certain points to remember when a new agent comes before us, after its composition is known to us. If the agent be volatile, we must inquire its vapour density, for upon that will depend its rate of diffusion; we must also ask if it will condense, or if it will enter as a gas and diffuse as such; we must know its specific gravity—if it be condensible into a liquid—as compared with water and blood; and, again, we must know its degree of solubility in the blood. In the case of fluids, after their composition is known, we must determine their boiling points, their specific gravity, and their solubility; and, in the case of solids, we must learn their weight, solubility, and force of chemical affinity.

(C) *Chemical Stability.*—A word must be said in respect to the chemical stability of different bodies used or to be used in Medicine. We are almost forced to the conclusion that some medicines break up within the body. All soluble medicinal substances which, out of the body, are changed by being brought into contact with weak alkaline solutions, are probably broken up in the organism. Thus we infer that chloral hydrate is broken up within the body, yielding chloroform as a product. It is possible, also, that other bodies—alcohol, for instance—undergo oxidation; and some iodides almost certainly are decomposed by oxidation of their base. A very interesting experiment illustrates the peculiarity of the iodides in the body. By increasing the saline constituents of the blood, we can, as a rule, induce, in frogs, temporary cataract. But in the case of the iodide salts there is exception. We have before us an example of this in two frogs, one of which, under the influence of chloride of potassium, is temporarily cataractic, while another, under the same proportion of iodide of potassium, is free of cataract. These modificacations of action, from instability, deserve to be carefully remembered; they are exceptional, and may all be formulated in the course of research.

(D) *Peculiarities of Animals.*—There are some peculiarities of animals which modify the action of chemical compounds. As a rule, all animals are affected in a similar way by similar substances. All the less complex agents affect equally, but some of the more complex organic substances are exceptional in effect on certain animals—on animals, specially, that have a natural high temperature. For example, here is a pigeon which has, I may say, lived on opium, yet is it quite unaffected by the narcotic. At the present moment it has in its body as much morphia as would destroy a man, but it shows no sign of ailment. All pigeons offer this resistance to opium. Goats offer, again, a resistance to nicotine. In these examples we have evidence that complex organic substances may either be broken up into inert bodies, or may be refused action in the tissues of certain animals. The facts, again, are exceptional; the exceptions may be easily learned and formulated in research, and as each one is learned it should be placed on permanent record.

(E) *Specific Action of Agents on Different Parts of the Organism.*—It is essential in all therapeutical researches, conducted on the method I would point out, to study the specific action of each compound in relation to the special parts of the organism. Of late years the idea has been prevalent that all agents must act through the blood, and that the nervous system can be reached in no other way. We are learning now that this idea is fallacious, and that the action of many substances is direct upon the peripheral surfaces of nerves, the impression being conveyed immediately along the nerve, in the same manner as an impression of light or of sound. The action of nitrite of amyl is, without any doubt, conducted in this manner; for I have found that the heart can be influenced by it in an animal recently dead, when all circulation has ceased, the agent being simply applied to the olfactory tract or to the surface of the retina. Dr. James Jones has also shown that hydrocyanic acid can be made to act fatally by its direct application to the medulla oblongata; his observations on young alligators leave nothing to be desired, on this point, in way of demonstration. It is our business, therefore, to determine the direct influence of each agent and the character of the influence exerted. Is the action simply on the blood? Is it direct or indirect on the nervous systems? If it be on the nervous systems, is it on the cerebro-spinal or the ganglionic system? Does it proceed from the periphery to the centres, or from the centres to the periphery? Is it an action causing paralysis of sensation or motion, or exaltation of either or of both? Or, again, is the action of the substance on the muscular fibre, on connective tissue, or on intercellular fluid?

SOME NEW REMEDIES.

I have dwelt so long on method of research, but little time remains in which to ask your attention to the new remedies named in my programme—nitrite of amyl, the ethylates of sodium and potassium, and the triethylic and trimethylic ethers; but a few moments may be devoted to them.

Nitrite of Amyl.—The physiological action of nitrite of amyl is, as we have learned, directly exerted on the ganglionic nervous tract; it paralyses so that the nervous supply over the extreme vascular system is impaired; and the muscular system generally, if the effect be sustained, is thrown into relaxation. The observation of this effect of the nitrite led me to suggest it primarily as a remedy for excessive spasmodic action—for tetanus specially—and it has been applied in the direction thus pointed out with much success. Lately, Mr. Foster, of Huntingdon, has administered the nitrite with complete success in a case of traumatic tetanus—holding the convulsions in check for the long period of nine days. The nitrite is best administered by inhalation, five minims on a piece of folded linen or handkerchief being the dose for an adult. The remedy will act if it be given by the mouth; but as the action is very energetic, and requires to be kept under the control of the administrator, it is much safer to administer by inhalation. In tetanus, the periods of recurrence of the spasmodic attacks should be carefully watched, and when the paroxysm is threatened, the inhalation of the nitrite should commence so as to subdue the spasmodic seizure. In spasmodic angina, in asthma, and in colic, the agent has been administered also with success.

It must be clearly understood that the action of the nitrite is curative only in so far as it controls the spasm in the cases named—that is to say, it prevents death, and so leaves time for recovery. I observed originally, and on the observation the suggestion of the practice is founded, that frogs under strychnine tetanus are immediately relieved of spasm by the nitrite of amyl, and that with great care in keeping the animals free of spasm, they can be sustained until the strychnine is removed from the body, when there is recovery; and in this explanation I define the true place of the nitrite as a remedy. In tetanus the administration of the nitrite is not to be considered as displacing other rational means of cure. On the contrary, it favours other means: it enables food to be freely supplied, it gives time for the action of purgatives and diuretics, or for the employment of the hot-air bath.

Caustic Ethylates.—The construction of the ethylates of potassium and sodium was described at the early part of this lecture. The ethylates are crystalline substances, in which one atom of hydrogen of absolute alcohol is substituted by one of potassium or of sodium. Brought into contact with the body, the ethylates at first produce no action, but as they pick up water from the tissues they are decomposed, the potassium or sodium is oxidised, yielding caustic potassa or soda in the fresh state, and alcohol is reformed from the recombination of hydrogen derived from the water. I propose the employment of these ethylates as caustics. I believe they will be found to be the most effective and manageable of all caustics; and that in cases of cancer, when it is desirable to destroy structure without resorting to the knife, and in cases of nævus and other simple growths, they will be of essential service. The ethylates can be held in solution with alcohol in various degrees of strength; the solution can be applied with a glass brush or injected by the needle, and a slow or quick effect can be insured, according to the wish of the operator. The ethylate of potassium is the most active agent.

Triethylic Ether.—When the ethylate of sodium is acted upon by chloroform, there is produced an ether, called triethylic, of which there is here a specimen. The chemical action which takes place is very fierce, and great care is required to secure a fair product. In the decomposition the chlorine of the chloroform combines with the sodium of the ethylate to form chloride of sodium, which salt falls down, and triethylic ether remains. As chloroform contains three atoms of chlorine, each single part of chloroform decomposes three parts of ethylate of sodium. Thus:—$3(C_2H_5NaO)$, ethylate of sodium; $CHCl_3$, chloroform = 3NaCl, chloride of sodium, and $C_7H_{16}O_3$, triethylic ether.

The ether is a heavy, aromatic, ethereal fluid, having a vapour density of 74, a specific gravity of ·896, and a boiling point of 145° C., 297° F. It acts much like alcohol physiologically, and I have lately used it as a menstruum of ethylic ether for general anæsthesia. The ethylic ether carries over with it, in evaporation, sufficient of the heavier ether to form a compound vapour which is very pleasant to breathe and equable in action. I have administered this compound twice for operations on the eye—once while Mr. Brudenell Carter operated for strabismus, and once while Mr. Walker, of Liverpool, operated for cataract. The anæsthesia in both cases was perfect. The ether also forms an excellent mixture with bichloride of methylene; and were mixtures of anæsthetic substances satisfactory scientific applications, we might bring it into extensive use. I accept it, however, rather as an index of the way I should go than of a resting-place. I look for a simple ether which shall have the full and safe qualities of the mixture, together with perfect stability. We have before us, in truth, already another ether, called trymethylic, made by acting on methylate of sodium, CH_3NaO, with chloroform; the product being 3(NaCl), common salt, and $C_4H_{10}O_3$, trimethylic ether. But this ether, which has a vapour density of 53, and a high boiling point, is not quite, though it approaches, the substance we require.

I hope you will pardon me for having, by a few minutes, exceeded the hour. It is difficult to traverse ground so new in Physic as I have had to traverse; it is impossible to leave such ground untraversed. Better, therefore, to get over it ever so little, and even in lame and stumbling gait, than not venture at all. Let us once get on the new ground, in train, and we march straight to the positive science and art of cure, and the fate of quackery, *intra* or *extra* the ranks, is sealed for ever. Let us not venture on the new ground, and we remain as we are—wiser than gross uncertainties, but weak because, uncertain ourselves, we are obliged constantly, by our questionings and admissions, to proclaim to the vulgar that even the guides cannot find their way.(c)

LECTURES ON DERMATOLOGY.

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Lecture VI.

(*Continued from page 388.*)

VIII.—Aberrations affecting the Hair.

17. Trichopathic Affections—that is to say, diseases of the hair and hair follicles—constitute a large and important group, in reference to which the physiological phenomena of the hair have to be considered, and their divergence from the normal standard separately distinguished. Thus we may find:—

a. Errors of quantity.
b. Errors of colour.
c. Errors of direction.
d. Errors of structure.
e. Disease of follicles.

And we may arrange in a tabular form the diseases of the hair proper as follows:—

Group 17.—Trichopathic Affections.

a. Errors of Quantity.
- Trichosis *seu* hirsutics.
- Spili *seu* nævi pilosi.
- Trichorrhœa *seu* defluvium.
- Madesis.
- Alopekia *seu* madarotes.
- Phalakrotes *seu* calvities.

b. Errors of Colour.
- Trichodyschroia.
- Poliothrix *seu* canities.

c. Errors of Direction.
- Trichiasis.

d. Errors of Structure.
- Trichatrophia.
- Trichoklasia *seu* fragilitas.
- Phytosis tonsurans *seu* tinea.
- Tricho-syphilosis.
- Trichopathia plica.

In reference to *quantity*, the hair may be in excess, and the *trichosis* or hirsutics or hairiness, may be general or partial. Cases are on record of marvellous shocks of hair, of hairy men, and of the occurrence of hair in patches of different size, and

(c) It was my intention in this lecture, had time permitted me, to have illustrated some of those admirable experiments of Drs. Fraser and Crum-Brown "On Chemical Constitution and the Physiological Action of Poisons," by which they have traced out, with a scientific accuracy and judgment rarely equalled, the effect of the addition of iodide of methyl to strychnia and other poisonous alkaloids. I must content myself, for the moment, by referring the reader to the paper of these learned authors, published in the *Transactions* of the Royal Society of Edinburgh for January 6, 1868.

dispersed more or less numerously over the surface of the body. In smaller quantity, and in the shape of tufts growing from a base of hypertrophic skin, a partial trichosis is manifested in *spili* or hairy moles.

On the other hand, the hair may be diminished in quantity, and may be presented to our observation as a *trichorrhœa* or defluvium capillorum, a simple fall of the hair; as a *madesis*, or coming baldness; as an *alopekia* or *madarotes*, a confirmed but incomplete baldness; or as an utter baldness—namely, *phalakrotes* or *calvities*. The ancients are profuse in terms applicable to the varying stages of loss of hair; hence we may infer, as would seem to be the fact, that they bestowed considerable attention on the subject, and we have a long series of names, each representing a stage in the progressive change; for example, there is trichorrhœa, followed by madesis and madarotes or alopekia, and beyond alopekia we come upon phalakrotes.

The term alopekia is derived from αλωπηξ, a fox, and would seem to be intended to represent a kind of baldness with scattered hairs, which we meet with in animals suffering under the mange—for example, the canine genus, of which the fox is an example. And in practice we distinguish two varieties of alopekia—for instance, *alopekia vulgaris* or common baldness, and *alopekia areata*, or baldness in circular patches varying in number and size. Alopekia vulgaris is in general a failing of age, but alopekia areata may occur at every period of life, and is the consequence of an arrest of nutrition from exhaustion of nerve power.

Disorders of *colour* of the hair are represented by alteration or variation of the natural pigment of the hair and by absence of colour or whiteness of the hair. Hence we are provided with the terms tricho-dyschroia, or discolouration of the hair, and *poliothrix* or *canities*, that is, greyness or hoariness of the hair, leading onwards to the silvery white of age. Numerous cases are on record of a complete change of colour of the hair during illness, and it is also recorded that in a very old person who had been for some time bald, the hair grew again, but with the colour of youth instead of that of age. I am enabled to show you a lock of hair, once of an average brown colour, which has changed to a deep black in association with the melasmic bronzing of the skin of Addison's disease. It was presented to me by Dr. Greenhow, under whose care the patient was treated. Another very extraordinary example of trichodyschroia exhibits an alternation of white and brown bars from one end to the other of the hair. A specimen of this kind of *banded hair* is preserved in the Museum of St. Bartholomew's Hospital. I now show you a lock of hair of a similar kind that I obtained from a patient of my own. There is reason to believe that these bands of colour represent the alternations of day and night, the brown disk being produced during the day and the white during the night, the white and the black taken together representing a period of twenty-four hours. A careful examination of this hair discovered that there was no real absence of pigment in the white disk, but simply an excessive accumulation of minute air globules by which the pigment of the hair was concealed. It is, therefore, to be concluded that with a certain irritable condition of the nervous system air globules may be generated in the hair in a brief space of time, and that in this fact we have an explanation of the sudden blanching of the hair, such as we read of frequently, and of which one striking example has fallen to my own share to observe. In *poliothrix*, or true canities, there is an absence of pigment, and, with this absence, either a deposit within the cells of the hair of a white calcareous matter or a horny transformation of the fibres of the hair, or both of these conditions at the same time.

Altered direction of the hair is distinguished by the term *trichiasis*, which is applied to the eyelashes when, from misdirection, they rub against the conjunctiva and excite inflammation; and also to the hairs of the head, when from neglect, as in long illnesses, they become inextricably intermingled and entwined, and form masses which it is impossible to unravel. The former of these kinds of misdirected hair is termed *trichiasis ciliorum*, also *phalangosis;* the latter, *trichiasis coacta*. The entanglement of the hair in plica polonica is doubtless in some degree due to the same process as that which gives rise to trichiasis coacta.

In reference to *diseases of structure* of the hair, it may be premised, that the hair, as an organ, and in its relations to the vital powers of the individual, differs in no respect from other appurtenances of the economy. It may be fully nourished, or partially nourished, or not nourished at all; it may be perfectly or imperfectly elaborated; and it will be found to participate very closely in sympathy with the rest of the organism. In alopekia areata there is an arrest of nutrition of the hair as well as of the skin. In the centre of the patch the hair ceases to be produced, while the skin falls into a state of partial atrophy; but in the circumference of a patch there may generally be discovered a few short stumps which are club-shaped in figure, broad at the end, where they possess the diameter of the normal hair, and where they have broken off, and then becoming finer and finer as they approach the follicle and sink into its cavity; this is *trichatrophia*. It is clear from such an observation that the hair had become altered in structure, soft, and brittle, before atrophy had set in; then that atrophy of the bulb had been the cause of the attenuation of the hair to the finest possible thread. I may mention another example to illustrate the changes of texture, that is, of structure, which are sometimes met with in the hair. If you pass through the fingers hair of a perfectly healthy kind it communicates to the touch the sense of pliancy, of softness, of silkiness; but if you treat the apparently unaffected hair in a case of ringworm in a similar manner you will find it stiff, and harsh, and wiry, like the hair of a skye-terrier; and this difference you may note also in different parts of the same head. And, moreover, you will remember, that on the morbid parts of the skin in that disease the hair has either broken off close to the scalp from sheer brittleness, or it may have been laid flat with the skin, like a wheat crop battered down by a summer thunderstorm. To those who have given attention to the subject, there is scarcely anything in physiology more remarkable and interesting than the differences in the texture of the hair dependent on its healthy or on its unhealthy condition.

It is no very uncommon thing to meet with cases in which, from imperfect nutrition, imperfect assimilation, and imperfect elaboration of the thicker hairs of the beard, their texture is so far altered that they break through with the simple manipulation which is necessary to keep them in trim. Sometimes they break through completely, but at other times the break is only partial; the cuticle cracks, together with the outer layer of the fibrous portion, but the central fibres retain their integrity, and hold the ends together. Seen with the lens, the break has the appearance of two brushes brought in contact end to end, while with the naked eye the breaks have the semblance of white specks. There may be many such breaks on a single shaft, and then the general appearance will be that of particles of scurf scattered through the hair; and, in fact, it is this appearance which first of all attracts the attention of the patient. I was made acquainted with this affection originally by receiving from an unknown correspondent, a Medical man, a specimen of hair of this kind, which he termed *jointed*. I have since seen the affection many times, and have given to it the name of *trichoklasis* or *trichoklasia*, κλασις, being "a breaking;" or in the Latin we may term it *fragilitas crinium;* and it has also been described and figured by Dr. Beigel.

Ringworm, or *tinea*, or *phytosis tonsurans*, affords a peculiarly interesting example of altered structure and texture of the hair. The morbid hair is brittle, and breaks off close to the scalp, suggesting the idea of being eaten away, like the hair from a lady's muff, by the grub of the tinea moth. But sometimes, instead of breaking off, it is thrown prostrate on the surface, and becomes a part of the crust which covers the diseased spot; moreover, besides loss of texture and structure, there is also loss of colour, and the hair has the character of *tow* rather than that which belongs to it properly. Ringworm is to be referred to the group of diseases of the epidermis and its dependencies, seeing that it consists in a degeneration of the elementary components of that tissue; in a *granular degeneration*, as I have termed it, and, in consideration of its phytiform appearance, a *phytiform degeneration;* or, according to those with whose opinions I do not agree, in a real fungus plant, to which the term trichophyton has been assigned. According to the same believers, ringworm is a parasitic disease, and its transference from one individual to another a mere matter of the conveyance of a seed and the germination of that seed in a favourable soil. When a diseased hair is examined with the microscope, the morbid granular texture is very visible, and to these granules the term "spores" has been applied.

Besides exhaustion of nutrition, such as we meet with it in the clubbed and atrophied hairs of alopekia areata; besides the imperfectly elaborated and brittle hair of trichoklasia; and besides the incompletely developed hair of phytosis or tinea, hair retaining its rudimentary condition and obeying the laws of that rudimentary state; besides this successive series of alteration of structure of the hair, there is yet another, of equal, and possibly of greater, interest—namely, one which is due to syphilis, and is a manifestation in the hair of the syphilitic dyskrasia as it exists in other tissues of the body. In *tricho-*

syphilosis, as this state of the hair may be properly termed, the shaft of the hair is swollen from point to point; the swollen portions are dark coloured, or even black; they dry up when exposed to the atmosphere and either split longitudinally or break off transversely; and the microscope brought to bear upon these points shows that the structure of the part is altered; it is no longer fibrous, but is composed of cells like the medulla crinis, or like the original pulp. All that exists of the fibrous portion of the hair is to be met with as a thin layer at the surface; and the enlargement presents all the characters of a tumour, and consequently of a syphiloma of the hair.

The TRICHOPATHIA PLICA, or plica polonica, is not a disease of this country, but appears to consist of an alteration of structure of the hair, the exudation of a copious discharge from the scalp, and the matting of the hair into a shapeless mass. In our museum there exist no less than three specimens of this singular affection, one of which was presented to the College by Mr. de Meric.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

NOTES FROM THE WAR.

By A. TREHERN NORTON, F.R.C.S.,
Assistant-Surgeon, St. Mary's Hospital.

(*Continued from page* 444.)

IN our Hospital at Briey, a town situated about twenty-one kilometres north-west of Metz, there were at first about 150 wounded, chiefly French; and as some died and others were sufficiently recovered to be conveyed into Germany, they were replaced by some few more. The wounded were chiefly from the battle of Mars la Tour, on August 16, and most of the operations had been performed immediately after the battle, but there yet remained some few resections of joints and secondary amputations, etc. There were also many sick Germans in Briey, suffering from typhus fever, dysentery, and diarrhœa. The precise number I do not know, but they were very numerous in Briey, as in all other towns, and an idea may be formed from a remark made one day to me by the Inspector of Hospitals that he had on that morning received ninety-two fresh cases.

Associated with us in the treatment of the wounded was a Prussian Staff-Surgeon, Dr. Josephsohn; and I would here remark that we received the greatest courtesy, not only from the Surgeon mentioned, but from all Prussian officers, both Medical and combatant. The Medical officers were always ready to show and explain, and consult with us upon every case under their charge; and the combatant officers, looking upon us as in part connected with themselves, spared no trouble in showing to us those points of warfare, fortifications, etc., in which we, like most people, were curious and interested.

Briey, among French towns, is peculiarly healthy. It is well cleansed, and stands high upon the side of a hill, overlooking the surrounding country. It is about four English miles from the battle-field, and no better place could have been chosen for a Surgical Hospital. The French patients were taken into the best houses of the town, and all that the inhabitants were capable of doing for them was done. Cases in this town might, therefore, have been expected to do better than in most of the Hospitals, and they certainly did. In addition to our own wounded, I took advantage of every opportunity to examine the wounds and question the patients in the Hospitals and villages around. All Hospitals, in villages in which the inhabitants were not capable of looking after the patients, were supplied with food, covering, etc., by the Prussians; and though, considering the number of sick and wounded, the Prussian organisation was admirable, yet, as I have before mentioned, the patients were often in the greatest need, not only of appliances and comforts, but even of common necessaries, of medicines, and of disinfectants. On very frequent occasions Medical men have come from a distance to our ambulance to say that they had so many patients, and that they had food for only a half, or in some case for only a quarter, of that number. We have on such occasions supplied them with biscuits, Liebig's extract of meat, preserved milk, wine, brandy, etc.

To enter into a full discussion upon the various gunshot wounds and other injuries produced by war materials would be, to a great extent, but a repetition of our present works on military Surgery; but in my experience I have noticed some few points at least, and many individual cases, bearing particular interest. With regard to the bullets, that of the chassepôt rifle, which is of somewhat conical form and largest at the base, more readily makes its escape from the body than the ball of the needle-gun, which is in the form of an extenuated egg, somewhat oval, elongated, and decreasing in size towards both ends. In theory, one could enter largely into the great amount of injury caused by the one when compared to the other, in consequence of its shape; but then there are many smaller points which must be carefully weighed in the scale, such as distance and, again, the precise part of the bone struck; and the result is that we find much the same sort of wounds—compound and comminuted fractures—both in the Germans and in the French. I have, however, certainly noticed that the ball of the needle-gun more often makes a simple subcutaneous wound than that of the chassepôt, since it is more readily turned by the deep fasciæ, whilst the chassepôt bullet more readily penetrates the muscular tissues.

I inquired of the men what sensation they experienced when struck by the missile, ball or shell; and they replied that an intensely burning pain spread from the wound to a considerable distance in every direction, and that they immediately felt sick and faint. Most, whether struck in the trunk or limbs, also said that the force of the blow was sufficient to throw them off their feet.

I particularly questioned, in slight wounds, if they knew at the time that they had received an injury, or if, from excitement, they did not discover it until some time afterwards; but in every case the reply was that the pain was too acute, and that, exclusive of pain, the force of the blow was sufficient to make them fully aware of what had taken place.

With regard to the size of the orifice of entrance and exit of a ball—in those cases in which the ball pierced the soft tissues only, I frequently detected little or no difference; but in those cases in which the ball passed also through the bone, the orifice of exit was considerably larger. I never could determine, by the size, through which orifice the ball entered, or through which it escaped. There seemed to be many circumstances under which the size and shape of the apertures were altered. A ball in some instances entered the surface obliquely, and then, by deflection, made its escape perpendicularly to the skin, so that the aperture of entrance was larger than that of exit. Within a few days after the injury the margins of both orifices invariably slough or ulcerate, so that they expose a denuded surface twice or three times as large as the first injury, and the loss of integument around the aperture of exit is generally greater in proportion than that around the entrance of the ball, since the injury spreads deeper at the aperture of exit.

(*To be continued.*)

NOTES OF A CASE OF POISONING BY CARBOLIC ACID.

By ALFRED WILTSHIRE, M.D., M.R.C.P. London,
Junior Physician to the West London Hospital, Physician to the Samaritan Hospital for Women and Children, Physician to the British Lying-in Hospital, late Medical Inspector to H.M.'s Privy Council.

THE following case occurred in the practice of my friend Dr. W. H. Oliver, of Stockton-on-Tees, who was good enough to ask my advice respecting it.

A young man, aged 19, had been suffering from enteric fever for about a fortnight, when, by accident, his father gave him a tablespoonful of strong carbolic acid (which was kept in the room for disinfecting purposes) instead of a dose of mixture. On discovering his error, the father immediately saw Dr. Oliver, who, as he could not then visit the patient, advised that an emetic should be administered; but the young man was unable to take it. When Dr. Oliver saw him, he was almost pulseless, and breathed with great difficulty. Milk and other bland fluids were ordered. Some brandy was given by the friends on account of the collapse. This, obviously, was unfortunate.

Being unable to see the patient, I advised Dr. Oliver to administer nutrient enemata, consisting of beef-tea and a little brandy, and to give iced milk by the mouth, and I requested that the dejecta should be particularly noted. The patient died two days after the administration of the poison, having never rallied. During life there was, Dr. Oliver informed me, marked lividity of the skin, which presented a mottled appearance.

The stools were of a blackish-brown colour, and the urine, the state of which I particularly wished to know, presented the appearance which usually follows the exhibition of carbolic acid—that is to say, it was of a very dark brown or blackish colour.

Would it not be well, seeing how widely carbolic acid is now used, if every bottle containing it in a possibly dangerous quantity bore a label stating its best antidote?

ON THE

SANITARY TOPICS OF THE DAY.

SCARLET FEVER—THE CONTAGIOUS DISEASES ACTS—THE REGISTRATION OF DISEASE—MISCHIEVOUS OPERATION OF POOR-LAWS—BABY-FARMING—NECESSITY OF BUILDING ACTS—REFORM OF LOCAL TAXATION.

BEING AN ADDRESS DELIVERED AT THE MEETING OF THE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

By ROBERT DRUITT,
President of the Association.

Scarlet Fever.

Alluding first to the prevalence of scarlet fever in the metropolis, he said:—This is the season in which, according to the observations of our colleague, Dr. Ballard, it may be expected to show some sign of increase, after a partial diminution during the summer months. In the week ending October 8, the Registrar-General reported 192 deaths from this disease, being an increase of 21 over the preceding week, and the highest number registered since last December. In the quarter ending September 30, there were 1674 deaths, or 129·4 per week. I need not speak of the devastation and ruinous expense occasioned by the cases which are not fatal; nor yet of the difficulties in the path of the Medical Officer of Health who shall try to set limits to it. For an efficient wielding of sanitary measures, it is clear that we want a registration of disease, coupled with some provision for making the existence of the disease known immediately to the sanitary authority. This was laid down in the Memorandum on the measures necessary for arresting the spread of scarlet fever, which our Association presented to the Registrar-General in November, 1869, and of which I may say that, comparing it with some other publications on the same subject, it has the virtues of not less modesty, and greater comprehensiveness. But what do we find in practice? The existence of scarlet fever in a house, instead of being made known, in the interests of public safety, is studiously concealed, from the fear of preventing customers from coming to the shop, and the like. But not only so; there is a system of concealing the disease under euphuistic names—such as "blood poisoning with rash," or quinsy. The prevalence of contagious sore throat without rash is also a source of infection which may baffle anyone. But, at any rate, safety would be enhanced if the place and date of every case were made known to public authority, and the terror which arises from suspicion and concealment would be abated. It is clear that the infection of scarlet fever is propagated either (1) by the bodies of the sick, and by the clothes, apartments, &c., which are contaminated by them; or (2) by some sources of mischief other than the immediate effluvia of the sick, such as fermenting heaps of impurities, receptacles of excretions, drains, and the like; or (3) by both. As for the first part of the subject, we need not go into the principles of the disinfection of the discharges from the kidneys and bowels, the application of medicated oil to the skin, and the frequent baths, to assist in the exfoliation and disinfect what passes off, the disinfection of clothes and the like, which have been so well described in our own Memorandum, and so energetically enforced by Dr. Budd, of Bristol. One thing must tend to diminish our sense of security from these measures, and that is the fact that, at present, scarlet fever is raging at Bristol—where Dr. Budd's directions are sure to be carried out by the very able health officer, Dr. Davies—having caused thirty-three deaths in the week ending October 8; and that Dr. Budd speaks on the one hand of his success in preventing the spread of infection within houses, and yet declares that the prevalence of scarlet fever is very considerable in his city. But if the infection of an infectious disease proceeding from individual patients be annihilated, and yet the disease spreads, there is reasonable suspicion that there must surely be some source other than infected persons—some common and extrinsic source—to account for this. There may be some condition of earth and air unknown to us, and not a subject for discussion. But there are two possible sources which the practical sanitarian should take into account. I am one of those who believe scarlet fever to be emphatically a product of sewer gases. Whether those gases be, according to the very able and consistent theory some years since advocated by Dr. Budd, merely the vehicles of germs cast into the sewers, or whether they generate disease *de novo*, is not my purpose to inquire. Suffice it to say that, in my own experience, sore throats and sewer gases go together, and that in cases where scarlet fever has spread in houses, spite of well-devised and sufficient means of isolating and disinfecting the first patient, I believe I have sometimes found the common source of contamination to be in the breathing of sewer air or drinking of sewer water. One example I bring before you in this drawing of a rainwater pipe, with an open funnel-top, close to the window of a bedroom in which child after child was seized with scarlet fever. This is a common source of the introduction of sewer gases, and waste-pipes in cisterns are others; and whilst on this head let me say that I believe that, to disinfect a length of pipe and a length of sewer by carbolic acid, the element of quantity should be taken into account. The quantity of carbolic acid should be enough not only to taint, but to drench the whole of the canal. We may watch the effects of this acid on infusoria in a basin of putrid water, and may assure ourselves that these creatures are not killed till the acid is added in sufficient force. Against the sewer origin of this fever, I know there has been advanced by our acute and experienced colleague, Dr. Buchanan, the argument that "sanitary" works—among which are emphatically ranked the eradication of cesspools, the erection of closets, and drainage by means of pipes—have not been found to check the prevalence of scarlet fever. The answer is, that those works and apparatus so constructed do not in reality preserve the population from sewer gases, but simply cause them to be administered in a diluted form. If we consider in any back street the number of persons who frequent the water-closet, the small amount of cleansing it receives, the occasional intermission of the water supply, and the fumes that arise from street gullies and ventilators, we shall see that sanitary works must be carried far deeper before they can be relied on as safeguards against so subtle an infection as that of scarlet fever. The ventilation of the sick room, too, requires more consideration than is sometimes given to it. In most houses there is a strong draught down the staircase, and through the bed-rooms and, perchance, the water-closet. If the bed-room window be open and the wind blows into it, the air of that room is sure to be blown into the body of the house. Hence it is not enough to ventilate the bed-room. Care must be taken that the air of the house does not come through this room. A sheet should be hung outside the door, so that all the bed-room air may pass up the chimney, and not into the house. Lastly, on this subject, let me say, that it seems a popular necessity to have some disinfectant for rooms and bedding; something cheap, safe, effectual, and quick, so that the poor need not be deprived of the use of their room for more than a few hours. These properties, I believe, are to be found in the fumes of burning sulphur. And I prefer it myself to any other disinfectant for rooms and for bedding, and like articles that cannot be sent to the wash. It would be well worth while to establish periodic fumigations of the most crowded houses, and to drench drains, closets, and earth with carbolic acid; and to advocate, likewise, the oiling, staining, and hardening of floors, so that they may not be scrubbed, but may be cleansed with something of the turpentine kind; the abolition of fixed carpets in bed-rooms; not to allow the sweepings of sick-room floors to be put in a dust-hole, but to have them burnt. These points may seem very minute, but it is evident that scarlet fever has its favourite seat in something round about us, and so subtle as to render no care nor scrutiny superfluous.

The Contagious Diseases Acts.

The next topic I propose to notice very briefly is the Contagious Diseases Acts; I say very briefly because the discussion on those Acts has attained a degree of violence which must calm down before the small voice of truth and reason has a chance of being heard. I have no sympathy with persons who object to such Acts, because they wish to perpetuate contagious diseases as punishments for other people's moral delinquencies; neither do I advocate the doctrine of the liberty of women, and their right to traffic in their persons without the interference of the law. From the earliest times such women have been under control; and we find in the most philosophical of Latin historians, Tacitus (An., Lib. II., 85), the statement that Vistilia, a married woman, born of a patrician family, had been enrolled at the ædile's office as a common prostitute, according to the

custom of the ancients, who considered that the best punishment of unchaste women lay in the publication of their shame. Neither do I abandon the position that it is dangerous to put the character and liberty of women at the mercy of the police, who may not be incorruptible. But surely some common ground may be found on which men of sense may agree. Both parties, I presume, wish to repress public, open, flagitious prostitution. Surely, the way to attack syphilis is to attack prostitution, to lay the axe to the root of the public open debauchery of the music rooms—made as attractive as they can be by the aid of all the infernal ingenuity of artists in libidinous sensationalism, backed by abundant expenditure. Why do not the persons who propose to exterminate syphilis begin with the Haymarket and Leicester-square? At any rate, both parties agree in the desire to reclaim the unfortunate women, and to cure those physical ailments which threaten the public health. Now, I should prefer the repression of public prostitution, the incarceration of open and notorious women, and the Medical cure during their seclusion. Others put the cart before the horse, and begin with the physical ailment; but still, as a matter of fact, as they do labour at the same time for the moral reformation of these women, and often with success, I have no right to bespatter them because they do things not quite in the order which I think best. At the same time, anything like the "clean bill of health" system—which is, in fact, the prostitution of Medicine to the service of debauchery—merits, and I hope will receive, the reprobation of all right-thinking men.

Registration of Sickness.

I have spoken before of the registry of sickness, and illustrated the necessity of it by reference to scarlatina; and it is needless to say how much the community would be forearmed, were it only forewarned as to the first invasion of this and similar diseases. The first point is to make those in authority aware of the necessity and advantages of the measure, and to meet the objections which may be brought, *primâ facie*, against the incompleteness, the wrong diagnosis, and other errors liable to infest the first attempt at any new thing. Then, as the materials are at hand, in the shape of the weekly entries of the Poor-law Medical officers, there surely wants but the will to set the machinery in motion. It is proposed to establish a new office with a new name—the Registration Medical Officer, who is to be appointed to superintend and verify the registration, and occasionally act as a Medical Officer of Health. We would rather see a universal appointment of Medical Officers of Health, acting, as they always have done, in spite of difficulties, as registration Medical officers.

Baby Farming.

It is difficult to pass over in silence the subject of baby-farming. We know that the country is brimful of sexual immorality, and that not only do unmarried persons desire to get rid of offspring who would bring shame and ruin, but married persons to get rid of the expense and trouble. The French, as an acute Physician pointed out, use means to prevent conception, the Americans cut short the term of gestation, the Chinese put superfluous children into towers of silence, the English torture them to death by unwholesome food and the protracted agony of marasmus and diarrhœa. But, taken at the best, the fate of these children is an unenviable one, and they seem blighted from first to last; nor is it conceivable that any arrangement offers a chance of rearing them, save that of intrusting one, or at most two, children to the care of one foster mother. During twelve years, the number of foundling children—that is, of children either picked up in the streets or, at any rate, without mothers—admitted into the workhouse of St. George, Hanover-square, was seventy-two, and out of this number fifty-six died within a year. Some of these children were picked up in the streets, drenched with rain and drugged with opium. These are extreme cases, hopeless from the first; but the average mortality of these children under any conditions is so high that no prudent woman would undertake the task without recourse to Medical authority to certify, from time to time, that everything was well done.

Principles of Sanitary Law.

Now I venture to call your attention to the subject of that branch of municipal law, by virtue of which Medical officers of health exist, which relates to the preservation of health and life; and to the ideas of rights and liberties, and restriction of liberties, which underlie our existing laws, and which require growth or rectification before better laws can be enacted by the Legislature or public force throughout society. The popular doctrine is that a man's land is his own; that he has a right to do what he likes with his own. On the other hand, the right of a man to enjoy the earnings of his own labour is incontestable; and although it is limited by the necessity of contributions for the relief of the needy, and for public works of necessity, yet it is clear that no landholder has the right so to use his land as to profit by those vast contributions which are exacted from the industrious classes under the name of rates and taxes. Moreover, the principle is equally clear that no man has a right to live upon his neighbours.

Some Anomalies in the Poor-law.

Let me take, as a first example of the way in which a lax administration of laws for the relief of the poor does but rob the industrious and perpetuate misery and vice, the history of one vagabond who infests my own parish. For years our neighbourhood has been haunted by a drunken vagabond, who nominally gets his living by selling salt fish, but in reality by a kind of performance which excites the wonder of the vulgar, who pay him liberally with pence and drink, but which, to the ear of a man engaged in Professional pursuits, is a greater torture than brass band, barrel organs, or any other conceivable disturbance. The wretch, half drunk, spouts Shakespeare! and at all hours of the day may be seen staggering along the pavement, insulting respectable persons, and declaiming in a theatrical voice. Now this man, when starved, sick, or on the verge of delirium tremens, having no lodging but the streets or some empty stable, not caring to earn one penny, or to maintain himself in clothing or keep himself clean, has the privilege of installing himself in our workhouse, where, at the expense of the ratepayers, he is washed and cleansed from the vermin which every entrance of this man threatens to propagate over the house. His clothes must be disinfected, and he must be fed, warmed, and, if need be, put into the infirmary; every week there is a certain amount of clerical labour in entering his name, age, and the like; and all this is taken as a right; there is no sense of gratitude as for a benefit, or moral amendment. He comes in when he pleases, about seven times a year; stays as long as he pleases, and goes out when he pleases. The possessor of this aristocratic right of living at the public expense chooses to be a means of spreading vice, filth, vermin, and drunkenness; and public expenditure supports him, because, just when vice and filth become unbearable, it relieves him of the most pressing consequences, and thus enables him to return to the task of insulting his benefactors, and of encouraging others to be as bad as himself. Now, as with the Contagious Diseases Act, so with poverty from idleness and debauchery. If we interfere to prevent the consequences of vice—to save the unchaste from syphilis, or the idle from dying in a ditch—policy requires that we should manage our interference so as not to increase the unchastity or the idleness, which are the first terms in the problem. But, apart from this, it is clearly a horrible source of demoralisation, that public robbery, such as I have given an example of, should be habitual. Let it not be imagined that it is a solitary case; there are others worse in my own parish. Such cases form a "standing difficulty" in every parish in England; but such difficulties can only arise from a want of courage in asserting the rights of the honest ratepayers, or in demanding new laws, if the existing ones are too imbecile; power to say to such persons—we do not choose you to die in a ditch, because it would be contrary to public decency; but we do not give you the privilege of going and coming to suit your own pleasure; if we are to support you, it must be on our own terms. Equally abused is the law which confers on vagrants the artificial right of food and shelter. There is no morning on which any one who passes Piccadilly is not sure to meet several groups of persons whose very aspect betrays their occupation. Man, wife, and a certain number of children are slowly crawling along—their clothes and complexions, like those of animals, assimilated to the colour of the ground on which they crouch—and wandering along at a pace and in a manner which show the utter absence of a purpose. These persons are the vehicles of small-pox and typhus. Granted that it is to the interest of the community to have them washed and fed, yet the conditions should be such as to diminish the tendency to this aimless life. It is a fact that, to be a tramp, is not the casual misfortune of honest men seeking work, but the mode of spending their life chosen by some men who care not how foully they live so as it be without labour. These are extreme cases of the abuse of artificial rights conferred by legislation.

Necessity of Building Acts.

But there are other cases in which individuals abuse rights which they believe to be natural, but which are purely artificial, like the property in land. They claim the right to construct any kind of habitations they please, and to fill these with tenants who sometimes cannot support themselves in health, and certainly not in sickness, without taxing the rest of

the community; and they think they have a right to construct and maintain dwellings in which, from the nature of things, the inmates must fall sick. It is clear that there are hundreds of dwellings in this town whose rents come out of the poor-rate. Any given plot of ground near a large town, whose original value was that of common arable or pasture, has its value raised by being covered with buildings. The worse the buildings, the greater the profit; and the rents paid by the lower classes are, as regards space, light, and air, higher than those paid by the rich. If the industrious classes saw their own interests, they would demand power to authorise or to negative the construction of new buildings for the occupation of individuals likely to come upon the rates. Yet it is reserved for Medical Officers of Health, and in particular one honoured member of our Association, Mr. Liddle, to press the necessity of amended Building Acts upon the Government; to supplicate them, cap in hand, as if it were the Medical Profession that is to benefit, and not the whole community. If we demand that houses shall be built on dry foundations, with dry walls, of wholesome materials, well drained, with space for the access of light and air, and with internal means of ventilation, and a wholesome water supply, we are but checking the tendency of landowners to abuse their monopoly as a means of taxing the rest of the community. There are considerations, too, arising out of the plan of equalising the poor-rate over large areas. If the inhabitants of any parish are to be taxed for the relief of their neighbour's poor, it is but equitable that they should share the right of inspecting the habitations of those poor; for, if one set of parishioners employ a well-paid officer of health, and an efficient corps of inspectors, and really work up the poor people's houses, it is not fair they should be taxed for the benefit of the neighbouring parish, where filth, overcrowding, and disease are allowed to revel unchecked.

THE DWELLINGS OF THE POOR.

For my own part, I do not hesitate to avow my belief that, for the dwellings of the labouring classes in cities, provision must be made by public authority; and that as telegraphs, railways, and other public works, once begun by private individuals, and then appropriated by the State with fair compensation to the owners, so the necessary space for workmen's dwellings must be secured by the municipality when once a city like London is organised as a whole, and not merely as a federation of independent units. It is clear that, for the aggregation of human beings in large cities, individual rights in land, which is a property not of man's creation, and of which the supply never can equal the demand, ought to be extinguished, with fair compensation. The lines of streets should be laid out by public authority; lines of sewers laid down; the height and depth of buildings regulated; the accumulation of more than a certain number in a given area prohibited—and this not as a confiscation of property (for every one should be compensated to the uttermost farthing), but, in the first place, as a necessary measure to secure wholesome dwellings, to secure proper arrangements so that the light and air and means of exercise of a population shall not be cut off, and to hinder landholders, as at present, from enriching themselves by rents extorted from the ratepaying community.

LOCAL TAXATION.

There is no greater obstacle to the raising of money by taxation than the sense that the money is levied unjustly; and there can be little doubt that an impulse would be given to sanitary operations if the ratepayers felt that the necessary money was levied according to their interests in the property proposed to be benefited. Our Association besieges authority with demands for a Building Act, which shall prevent landowners from building unwholesome houses. But, before the erection of houses, the land ought to be prepared by drainage; and it is contrary to justice that a man who builds houses on a swamp should afterwards call on his tenants to drain that swamp; paying for works which, it is true, are in some measure beneficial to them, and for which they ought to contribute their quotum, but which, in reality, are a permament improvement of the property, as the tenants are not slow in finding out, when they have an increased rent to pay on the renewal of their leases. I have been witness to many an act of injustice committed under the existing laws—a tenant at the fag-end of a lease compelled to remove his old privy, and newly drain the house by pipes into the new sewer, which has been constructed at his expense, for the benefit of the landowners when the tenants' transitory interest shall have ended. But surely the same principle on which a tenant is called on to drain a house requires that the landholder should drain the district; that the low-level sewer, for instance, should be paid for by the owners of the Belgravian swamp, whose sewage will not pass away save by artificial means. It is one of the best signs of the day that this question of the equitable apportionment of taxation for improvements has been brought to light, not by the working men, as they are called, and the small shopkeepers, who are the sufferers from the existing system—they are far too busy in settling the affairs of France—but by politicians, with Mr. Goschen at their head, who have reported thus:—

"That the existing system of local taxation, under which the exclusive charge of almost all rates leviable upon rateable property, for current expenditure as well as for new objects and permanent works, is placed by law upon the occupiers, while the owners are generally exempt from any direct or immediate contributions in respect of such rates, is contrary to sound policy.

"That the burden of the rates may fall in part or wholly upon the owner, who has no share in their administration.

"That it is expedient to make owners as well as occupiers directly liable for certain proportions of the rates."

We hope very shortly to hear of a consolidation and amendment of sanitary law, from the labours of the Sanitary Commission. We may hope the law may be made uniform for the whole kingdom; simple in its definitions and processes; steady and effective in the remedies it gives; liberal in embodying the best principles and in the employment of officials of education and ability; and practically in harmony and not in conflict with the laws for the relief of the poor, and with the collection of national statistics; and the doctrine enforced that no man is to be at liberty to dip his fingers into the ratepayers' pockets by means of unwholesome factories or dwellings, and the degradation and sickness they occasion.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

SECONDARY HÆMORRHAGE FROM THE HAND AFTER PARTIAL AMPUTATION—LIGATURE OF THE ULNAR ARTERY, AND AFTERWARDS OF THE BRACHIAL—WITH REMARKS.

(Under the care of Mr. HAYNES WALTON, Surgeon to the Hospital.)

[Reported by Mr. ALFRED WALL, the House-Surgeon.]

G. M., a young, healthy-looking man, applied for relief at St. Mary's Hospital on August 30, 1870. A heavy stone had fallen on the ring-finger of his left hand, crushing the first and second phalanges, and opening the joint between them. Amputation was performed at the metacarpo-phalangeal joint, the head of the metacarpal bone being left entire. It was found necessary to tie only one artery, and the edges of the wound were then brought together by wire sutures, and dry lint applied. He was sent home at his desire, and was to be treated as an out-patient. The evening of the same day he returned with slight oozing of blood, which was easily stopped by a compress. The next day a water-dressing was used, and for a week the wound progressed favourably, so that on September 5 the posterior part of the incision had quite healed, and the anterior portion was granulating healthily. On September 6 the sole ligature came away, the sutures having been removed a day or two before. In the evening he came to the Hospital with considerable hæmorrhage, and was admitted as in-patient. A compress was placed on the wound, and the bleeding stopped, but recommenced early on the morning of the 7th. An attempt was made to secure the vessel in the wound, which was now sloughing, but without success. Judging from the place where the blood escaped, it seemed likely that the leaking artery was the third dorsal interosseous, given off from the posterior carpal arch, and therefore probably receiving its blood from the ulnar; this was confirmed by the fact that pressure on the ulnar controlled the hæmorrhage. Mr. Walton was sent for early in the morning, and placed a ligature on that artery, close to the wrist, the wound being covered with flexible collodion. On the morning of the 8th, at 5 o'clock, the hæmorrhage recurred in full force. Mr. Walton was again sent for. Now he tied the brachial artery, high up, above the origin of the superior profunda. The wound was treated in the same way as the former, and the limb was well wrapped up in cotton-wool. The same evening he had a slight return of the hæmorrhage, on account of his moving the limb quickly to obtain greater ease. It was easily stopped by a compress, and the arm was fastened to the

bed, so that he could not change its position. The next day he complained of numbness in his fingers, the temperature of the hand being 36° C. On the 9th the numbness had ceased, and the temperature had risen to 37° C. On the 10th the collodion was removed, and the wounds were dressed with a lotion of chlorinated soda. With this treatment the ligatures came away on the 17th, and all the wounds healed rapidly, the patient suffering from no untoward symptom. He was discharged well on September 26.

Remarks.—The cause of the hæmorrhage coming on at all in a healthy wound is difficult to find, but the fact of its slight recurrence after the brachial had been tied throws some light on it, as the reason was clearly to be traced in this instance to a hasty move of his arm. In all probability he began to use the hand too freely the day the ligature came away, and the clots and adhesions in the artery gave way before the stronger current of blood to the part, giving rise to the hæmorrhage. The question may be asked, why was the radial not tied before the brachial? The anastomoses between all the vessels round the wrist-joint are too free to give the hope that any but the most transient effect can be produced on the circulation of the part by the ligature of merely one of the vessels. It is certain that in a few hours the supply of blood to the spot would have been as free as ever by means of the anterior and posterior interosseous arteries, aided by other smaller vessels. Then, if hæmorrhage recommenced, the brachial would have necessarily to be tied under the great disadvantage of the main arteries of the wrist being blocked up, very much hindering the re-establishment of the collateral circulation; so that there would be great risk of sloughing of the hand taking place. These considerations seem to lead clearly to the conclusion that if it should be imperative to ligature any vessel away from the wound in injuries to the hand, that vessel should be the brachial; or, in other words, that it is of slight use to tie the smaller vessels of the part, as the hæmorrhage is almost sure to return, and then the brachial will have to be secured under less favourable circumstances. The ligature was placed on the artery above the origin of the profunda superior, on purpose to hinder the collateral circulation from being formed too quickly, thus to give the parts a longer time with but a comparatively small current of blood in them. The case is also demonstrative of the supreme importance of absolute rest after all operations of this nature.

LONDON HOSPITAL.

Mr. MAUNDER'S CLINIC.

In some remarks upon ulcers of the legs, Mr. Maunder drew attention to the frequent occurrence of tertiary syphilitic sores about one or both knees, and stated that—one or more sores situated above the middle of the leg, and arising without any apparent cause, was almost certainly syphilitic, and would be rapidly cured by iodide of potassium—while, although this variety of sore is found on any part of the extremity, varicose and chronic ulcers are always found below the middle of the leg. Even the statement that a sore followed a blow must not lead one to believe that the case is unconnected with syphilis; as one of the patients then shown was the subject of two sores on the knee, one occupying the site of a wound, and the other of spontaneous origin. He also called to mind instances of a lacerated wound of the cheek taking on tertiary ulceration, and of a lacerated wound of the thigh having a similar aspect. All three were healed quickly under the influence of iodide of potassium. He then illustrated by two cases that a blow short of wounding will lead to cellular nodes and tertiary ulceration sometimes.

Sometimes there is no history of syphilis to confirm the diagnosis, or it is inexpedient to inquire too closely; and then the position of the sore; its indolent aspect—perhaps having a slough in the centre, either devoid of granulations, or these latter large and flabby; the edges of the wound irregular, undermined, and boggy, with a dull red-bluish areola; the statement that there was a swelling in the part for weeks or months before it broke; all these conditions conjoined at once put aside the question of chronic ulcer, boil, or carbuncle. The treatment consists in due attention to the general health of the patient, and especially in the administration of five grains of iodide of potassium, increased gradually, sometimes, to thirty grains thrice daily. The drug often acts like a charm, and the character of the sore begins at once to alter for the better.

DORSET COUNTY HOSPITAL.

FATAL CASE OF TYPHLITIS.

(Under the care of Dr. COWDELL.)

J. G., aged 20, a cook on board a gentleman's yacht, was brought to the Hospital on September 14 by Dr. Langmore, the Medical officer on board, suffering from severe pains in the bowels, with sickness and constipation. He stated that he had been suffering from constipation for some weeks, for which he had to take aperient medicine. On the eighth inst. he was seized with violent pains in his bowels, accompanied with sickness and constipation. Purgative medicines were administered, which gave him temporary relief; the sickness, however, increased, and on the 13th inst. his symptoms were so urgent that it was considered advisable to remove him on shore to an Hospital.

On admission, September 14, he was breathing rapidly, alæ nasi dilating; skin hot and pungent; face flushed; countenance anxious; temperature in axilla, 101⅘°; the abdominal muscles were hard and contracted; there was tympanitis, with fluctuation, in flanks, and general abdominal pain on pressure, most marked in right iliac fossa. His stomach rejected both food and medicine. Belly too tense and tender to admit of the discovery of any abnormal contents by manipulation. Rectum explored; nothing abnormal found. An injection of soap and water was administered, which was followed by the hypodermic injection of a quarter of a grain of morphia, and this was repeated in three hours; the patient to be fed per rectum with beef-tea, milk, and brandy, every six hours.

September 15.—Is not in so much pain this morning; obtained some sleep during the night after injection. Has passed about two pints of pale liquid stools, covered with frothy mucus; has vomited about a teacupful of bilious matter; abdominal tenderness as before. Small quantities of milk by mouth were now retained. Ordered a grain of opium and pulv. ipecac. three times a day, with a mixture containing iodide and carbonate of potash, with tr. aconit.; eight leeches to be applied to the abdomen, and a linseed-meal poultice to be constantly worn.

16th.—Not in quite so much pain. Slept fairly during the night. Small quantities of nutriment were administered and retained, though there was occasional sickness, and some bilious matter was ejected.

17th.—About 3 a.m., being improperly allowed by the night nurse to use the bed-chair, he was seized with violent pain in the abdomen, which was relieved by a morphia draught; but towards the middle of the day the sickness returned; the body became bathed in sweat; the extremities cold; pulse scarcely perceptible at wrist; tenderness in right iliac fossa very marked. To omit all medicines, and have brandy and soda-water every hour. The patient rallied a little after the brandy and soda-water, but at 3 p.m. was seized with violent abdominal pain. An endermic injection of a quarter of a grain of morphia was administered, but he became rapidly collapsed, and died at 5 p.m.

Post-mortem, Seventeen Hours after Death.—Abdomen only opened; intestines matted together by recent adhesions; a considerable quantity of opaque yellowish fluid in cavity of peritoneum, with some intestinal gas and flakes of yellowish lymph. Peritoneum generally injected, but especially so in right iliac fossa; here, at one spot just to left of cæcum, between it and last coil of ileum, the injection was very intense. On separating the adhesions here gas was seen to bubble from the cæcum, and an oval body about the size and shape of a small hazel nut was seen lying here in the cavity of the cæcum, surrounded by fæcal matter. On removing about six inches of the ileum, together with the cæcum and portion of the appendix, the peritoneum over the ileum was found to be very much ulcerated, but without perforation of the gut. The cæcum also was found entire, but only about a quarter of its appendix remaining; the surface of the latter ragged and covered with grey slough. Of the remaining portion of the appendix, the apex was found adherent to the outside of the rectum. The rest of the intestines were healthy.

Commentary.—"When it is considered how common is catarrhal inflammation of the vermicular process of the cæcum—being invariably the result of fæcal matter and foreign bodies, especially small fruit-stones, having become lodged and hardened in it" (Rokitansky, vol. ii., p. 104)—the concretion found in this case supplies a sufficiently intelligible key for the explanation of the case. The concretion, exactly half an inch in length and quarter of an inch in its diameter, taken at its widest part, was of a brownish-white colour, consisting of several laminæ

of a whitish paper-like material, with a distinctly fibrous nucleus of the size and shape of a good-sized grape-seed, with which it has been carefully compared. On a careful consideration of the natural size of the appendix, it may be readily conceived how such a foreign body as a grape- or raisin-seed becoming lodged in its tubular cavity may for a long period cause blennorrhœa, and be accompanied by thickening of the coat of the vermicular process. After frequent exacerbation this passes into ulceration, which may, if the foreign body remains loose, attack the entire process; or, if the former becomes fixed, affect only the point of attachment or the end of the vermicular process—"sometimes in such a manner as to cause a division into two parts; the adhesions gradually give way and general peritonitis ensues" (Rokitansky). With this *rationale* supplied by Rokitansky, it will be sufficiently apparent that the case here recorded closely agrees. The constant irritation at one spot, or the accumulation of ulcerative secretion, and the consequent distension, induce a rapid development of the morbid process. That the concretion should have been found away from the appendix may be explained on the assumption that the gradually increasing distension of the vermicular process by fluid floated so light a body into the cæcum. When gangrene is superinduced, it more or less speedily brings on perforation of the vermicular process.

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Medical Times and Gazette.

SATURDAY, OCTOBER 22, 1870.

THE REGISTRATION OF DISEASE AND THE POOR-LAW MEDICAL SERVICE.

Mr. Goschen, when he received on Monday last the deputation from the British Medical Association and the Poor-law Medical Officers' Association, acknowledged frankly that the Registration of Disease was so clearly a thing to be desired that it required no arguments to enforce its value, and that the only question which was left for consideration was its practicability and the cost of the machinery by which it might be obtained. This avowal on the part of one of the most intelligent ministers of the Crown is satisfactory, as it at least shows that the Government does not share Major Graham's recent estimate of the national importance of a knowledge of the hygienic condition of the population. As Mr. Goschen said, the question at once resolves itself into one of practicability and cost. On these points there were evidently two currents of opinion and feeling manifested in the different elements of which the deputation was composed. The committee of the British Medical Association for the Registration of Disease could see no difficulty in the way. The Poor-law Medical officers formed the machinery, and it was only necessary for Mr. Goschen to set them to work. The Medical officers of the navy and army registered disease—their reports were of great national value—therefore the poor-law Medical officers might do the same, and the nation would still be more highly benefited. Of course, they must be paid something for their trouble, but the expense would be very little—one speaker suggested to Mr. Goschen that a shilling a week might be sufficient, and that no renovation or reconstruction of the Poor-law Medical Service was necessary. On the other hand, the Committee of the Poor-law Medical Officers' Association urged on Mr. Goschen that the registration of disease was indissolubly connected with the general hygienic management of the poor; and until that was put on a better footing, it was chimerical to expect a satisfactory registration of disease. The President of the Poor-law Medical Officers' Association insisted upon the inequality of pay and work which at present falls to the Poor-law Medical officers, and urged on Mr. Goschen the necessity of remodelling the Poor-law Service somewhat after the manner of the Irish system, in order to obtain satisfactory statistical accounts of the health of that class of society who receive Medical attendance at the public expense. To ourselves the question seems hardly to require debate. We believe that any registration of disease under the present Poor-law system would not be worth the paper on which the reports were printed. We have already before us evidence that the present Poor-law system affords so little opportunity for careful diagnosis that a very large proportion of patients sent to the fever Hospitals by the Poor-law Medical officers are not persons suffering from fever at all. We have evidence that Poor-law Medical officers are in many instances so overworked and so inadequately paid that a large part of their parochial practice is necessarily performed in the most perfunctory manner, or handed over to unqualified assistants and apprentices. In England and Wales the pay of the parochial Doctor will not enable him to live; he takes his appointment, probably, to exclude a rival, and he trusts to his private practice for the support of himself and his family. To suppose that under this system an accurate registration of disease for imperial purposes is possible is simply absurd. That such a proposition could be made to Mr. Goschen is proof of the most sublime ignorance or indifference as to the true state of parochial practice, not only throughout the kingdom, but even in London itself.

The true view of the case was supported by Dr. Ramsey and Dr. Rogers. A registration of disease would be a national benefit, and it can only be obtained through the medium of the Medical agencies, which are maintained by the public. Of these, the chief is the Poor-law Medical Service. But in order to obtain accurate statistics, Poor-law Medical officers must have time and opportunity for diagnosing and registering the cases which come before them, and must be adequately remunerated for their labour. For the mere weekly statistical report, it was suggested by these gentleman that a payment varying, according to length, of from half-a-crown to half-a-guinea might be sufficient. But it is clear, from what we have said, that any mere remuneration for clerk-work of this kind will not be adequate to reform our whole Poor-law Medical system; and it is only by such reform that the country can expect to reap the benefit of the registration of disease. The cases of sickness applying to public Hospitals must also be registered, and an adequate payment be made by the Government to the Medical Registrar for his labour. It is, beside the mark to argue that, because the Medical officers of the Army and Navy furnish these returns to their respective departments, therefore parochial and Hospital Medical officers are to be expected by Government to do the same. The Medical officers of the army and navy are exceptionally well situated for making these returns. Their practice lies amongst a certain class who are always under their observation; they have ample time and opportunity for the examination of their patients, and for recording their cases; and if not paid as well as they might be, they are at least paid as liberally as any other

order of public servants. There is, therefore, no analogy between the position of the Medical officer of the army and navy and the parochial Medical officer. When Government puts the Poor-law Medical officer on the same footing as the Medical officers of the two services, it will be ample time to suggest—as some of the deputation, in their interview with Mr. Goschen, seemed to do—that the public should demand the same services for the good of the State from each. With regard to the payment of a shilling for these reports, which the Secretary of a Provincial Medical Association suggested to Mr. Goschen as probably sufficient, we would ask, Is there another liberal profession besides the Medical in the world, whereof a member would suggest to a Minister of State a like paltry sum to be paid by an affluent country for a professional service?

DARWINISM IN CHEMISTRY.

The existence of natural families of elements has long been recognised by chemists. Chlorine, bromine, and iodine form one such family; potassium, sodium, and lithium (to which the metals cæsium and rubidium have been added by Bunsen's spectrum analysis) constitute another. The group barium, strontium, and calcium, as also the group magnesium, zinc, and cadmium, are well recognised. There is also the very extensive nitrogen family, comprising nitrogen, phosphorus, arsenic, antimony, vanadium, bismuth, boron, and some others. Then there is the carbon family, comprising, in addition to carbon, the element silicon (whose likeness to carbon we had occasion to illustrate a short time ago in the pages of this journal, when we described the beautiful researches of Friedel and Ladenburgh, who, as will be remembered, had prepared silico-propionic acid, a silicon fatty acid), and also the metal tin. Oxygen, sulphur, and tellurium form a group. Lastly, there is the singular group comprising aluminium, chromium, manganese, iron, nickel, and cobalt. The place of the metal copper is difficult to assign; silver likewise presents difficulties. Hydrogen is placed by ourselves in the chlorine family, but is commonly taken to belong to the potassium family; and in short, nearly every element has been assigned to one or other natural family. Wherein do the family likenesses consist? In the first-mentioned example—viz., chlorine, bromine, and iodine—it is not in the obvious physical characters of the elements themselves; chlorine is a greenish-yellow gas under ordinary atmospheric pressure and temperature; bromine is a brownish-red liquid; iodine a dark crystalline solid, yielding violet vapour on being heated. Many compounds of these elements are, however, so very like as to require analysis to distinguish them. Hydrochloric acid, hydrobromic acid, and hydriodic acid are colourless gases, very strongly fuming in moist air, and very soluble in water. They need to be subjected to some chemical test, or else to have their density determined in order to become distinguishable. Again, chloride, bromide, and iodide of potassium are very like to one another.

There is, moreover, a close parallelism between the possible combinations of these elements with other elements: in most cases wherein chlorine forms a compound, bromine and iodine do likewise. Thus, there are the chloride, the bromide, and the iodide of potassium or of sodium, etc. Chloride of ethyl is represented by bromide and iodide of ethyl, and chloroform finds its analogues in bromoform and iodoform. But, reviewing the chemical field, it will be seen that the parallelism, although close, is not absolute. Thus, there appear to be more oxides of chlorine than of iodine. The chloride of copper, again, does not appear to have an iodine representative; and most probably there are many complex organic chlorides which admit of no corresponding iodides; and, inversely, compounds of iodine, with iodides of the compound ammoniums, seem to be unrepresented by corresponding chlorine compounds.

In the second group—viz., that of the metals potassium, sodium, and lithium—there is wonderful resemblance in their compounds; resemblance very often so close that chemical analysis has to be called in to distinguish whether there be potassium, sodium, or lithium in the compound. There is, again, the closest parallelism between the possible compounds of these metals. Not a single potash-salt of any one of the thousands of possible acids but has its fellow sodium-salt. The only breaches of the parallel that occur to the writer are in the oxides of the metals and in the degree of hydration of the salts—potassium- and sodium-salts taking up different numbers of atoms of water of crystallisation.

Contrary to that which has been recorded of the chlorine group, the individual uncombined members of the potassium group present physical similarity. All are solids under ordinary conditions; potassium and sodium having, moreover, very nearly the same melting point, and also boiling points not very far apart.

Between the chemical equivalents of the different members of a natural family some very curious and interesting relations have been traced. Thus, the equivalents of potassium, sodium, and lithium are, respectively, 39·1, 23, and 7. Now, 23 is the exact arithmetical mean between 39 and 7; and in energy and general resemblance sodium is the mean of potassium and lithium. The equivalents of the members of the chlorine group exhibit a somewhat similar relationship, only not so precisely. They are 35·5, 80·0, and 127·0, the middle one not being quite the arithmetical mean.

Again, barium, strontium, and calcium afford a similar example—viz., 68·5, 43, and 20 respectively. It will be remarked that in the potassium group the highest equivalent and highest energy go together; that in the chlorine group least equivalent is joined to highest energy (chlorine being more energetic than bromine, and bromine more energetic than iodine); and that in the barium group the order is curious—viz., highest equivalent with highest energy (barium); next, intermediate equivalent with lowest energy (strontium); and last, lowest equivalent with intermediate energy (calcium).

A very suggestive relationship subsists between the *equivalents* of oxygen and sulphur, which are chemical fellows with strongly-marked resemblances, and whose equivalents bear to one another the exact ratio of 1 to 2.

Again, nickel and cobalt offer a marvellous case of resemblance. Chemically, they are almost indistinguishably alike in their compounds; physically, they are like one another as isolated elements; and their equivalents are absolutely identical, so far as the most accurate determinations have been able to show.

With all this in his mind, the chemical Darwinite asks, Can it be possible that the individual members of these chemical groups, which mock one another so strangely, are isolated species of matter, each one absolutely *sui generis*? Does not the analogy between individual members of a family show community of origin?

AN EXTRAORDINARY CASE OF ALLEGED MALPRACTICE.

An account of a case of alleged malpraxis has just reached us from over the Atlantic, as shameful and as shameless as any on record. The defendant, Dr. Sayre, of New York, is well known as a Surgeon and as an author—a man of established reputation. One day there was brought to him a little girl with a tumour in the gluteal region. The diagnosis rested between a fatty tumour and an abscess. On exploration pus exuded, and on opening it farther, a large quantity of pus with shreds of curdy material, such as is not uncommon in scrofulous abscesses, escaped, and the wound was dressed. No fee was paid. The child was not brought back, as directed, but some time thereafter an action was laid against Dr. Sayre for damages to the amount of 20,000 dollars—the plaintiff's agent bearing the somewhat suspicious

name of Edwin James, and who was further described as reaching America for the first time in 1861 or 1862. The alleged grounds of the action were that Dr. Sayre had pierced the hip-joint with a needle, causing discharge of synovia and destruction of the joint. The evidence for the plaintiff was given by a certain remarkable Dr. Vaughan, and Drs. Willard Parker and Carnochan. It is hardly possible to acquit the two last of all blame in the matter; they are both men of note, and knowing that they were dealing with a case which might prove disastrous to a Professional brother, they should have acted more circumspectly. But Dr. Vaughan was, and, we suppose, is, a curiosity in his way; as far as we can make out from his own evidence, the sum of his Medical education consisted in pasting Physician's prescriptions into a druggist's day-book. He had never attended any educational establishment where Medicine was taught, and he had no diploma. This gentleman, further, was unable to tell the difference between a synovial, serous, and sanious discharge, or to name a single ligament of the hip-joint; it was, he alleged, minute anatomy. The old story of Brookes' minutiæ is nothing to this. We can easily conceive that the poor gentleman was taken very ill during his cross-examination, and greatly desired to have it postponed; but the advocate was unreasonable, and held him fast. Yet it was on this man's evidence that the action was primarily based, and Dr. Sayre subjected to years of annoyance.

One very important result has, however, arisen from the trial in question. Dr. Sayre naturally wished to have the girl inspected, and the joint said to be injured examined by competent authorities, and to this, as naturally, the plaintiffs objected. The point was argued in the Supreme Court of New York, and the important decision was given that it was perfectly competent for the defendant to have the child so examined, and Dr. Van Buren, Dr. Frank Hamilton, and Dr. Krakowizer were appointed for the purpose. Their report was that the joint was uninjured. That, of course, was all in all for Dr. Sayre; but for us the judge's decision is of most importance. In the olden time, when American law and justice were more respected on this side of the water than they now are, the common law decisions of the one country passed current in the other. Whether this will be so remains to be seen, but at all events there it is—what lawyers most do hanker after—a precedent.

But to return to Drs. Willard Parker and Carnochan. When they examined the child—which they did separately—they found an exceedingly small orifice in the buttock, from which escaped some clear transparent fluid which they took for synovia, and which they therefore concluded led to the hip-joint. Yet neither gentleman seems to have taken the trouble to pass a probe along the sinus, to see where it led. When a brother Practitioner's peace and reputation are at stake, a little more care would not be misplaced. Far more, when Dr. Sayre called on Dr. Parker for an explantion, he was told that Dr. Parker expected that it would be a matter of a few hundred dollars, as in a case he himself had encountered. Had he thought it was a "real suit, and to have a regular trial, why he would have stopped it, as he was able." Now, this is very wrong. Dr. Sayre was either guilty of gross ignorance or negligence or he was a much injured individual, and Dr. Parker was consulted Professionally to settle the point. Certainly Dr. Parker has hereby done much to injure his own character for fairness, if not also his reputation as a Surgeon. Dr. Carnochan was candour itself. His interest in a case was exactly measured by the fee he received, which, not being large in this case, he desired to be speedily rid of it and all concerned in it. This is not quite creditable to American Surgeons.

But in the long run the case came on for trial before referees appointed by the Supreme Court; both sides were heard, and Dr. Sayre came off triumphant; but this was not the best of it, for when the judge on the bench came to pass judgment, in accordance with the report of the referees, he not only gave Dr. Sayre his costs, but also 5 per cent. on the sum claimed by the plaintiff over and above. Were the speculative attorneys and suchlike people who bring vexatious actions—on the chance of having them compromised—in this country so treated, we should have, as a Profession, much less annoyance, and much more peace of mind.

THE WEEK.

TOPICS OF THE DAY.

The first stone of the Edinburgh Royal Infirmary was laid on Thursday, last week, by the Prince of Wales. There was a grand Masonic ceremony on the occasion. The site is on the south side of the city. It is eleven acres and a half in extent, and on it at present stands George Watson's Hospital—a school building which is to be utilised for the purposes of the new Infirmary. The Infirmary will mainly consist of pavilions placed round the existing building. The main front will consist of a central block, with tower and spire, in the old Scottish baronial style of architecture. There will be Surgical and Medical pavilions and fever Hospital. The number of beds will be 600—340 Medical and 260 Surgical. There will be large pleasure and airing grounds for the patients.

Scotland seems just now to be basking in Royal favour. We may be permitted to offer our congratulation to our friends in the North on the fact that a Scotsman is to be the first to break the line of German Royal marriages. We are reminded by the talk about a Walter Scott centenary that a few decades have wrought great changes in the North. A princess of the House of Hanover is going to marry a Highlander, and Maccallum More himself has written a book on the Reign of Law.

The Medical societies are settling to work. On Monday a large gathering took place at the rooms of the Medical Society to hear the President, Mr. Gay's opening address; and on the following evening there was an excellent attendance at the first meeting of the Pathological Society. Dr. Quain, the President, in some opening remarks, referred to the sad list of losses which had taken place in the ranks of the Society since their last meeting, including that of a former President, Dr. Copland, Mr. Moore, Z. Lawrence, and others. In the course of the meeting considerable interest was aroused by the exhibition, by Dr. John Murray, of some specimens taken from the bodies of Bavarian soldiers who had died from dysentery at Sedan. There were many other specimens of interest also exhibited, notably one of aneurism of the arch of the aorta and innominata, by Mr. Christopher Heath, where the operation of tying the subclavian and carotid had been attempted.

Mr. Ellison's recent decision at the Lambeth Police-court, that the course pursued by the authorities of St. Thomas's Hospital, in removing a body for the purpose of a post-mortem examination without the consent of the friends of the deceased, was not a breach of the Anatomical Schools Act, may perhaps settle for a time the agitation that has been going on on the subject of post-mortem examinations in Hospitals. It leaves, however, untouched the question of the right to make a post-mortem examination without the consent of a legally qualified authority. On this question a legal correspondent writes:—

"It is a serious question whether the mutilation of a dead body, even with the most praiseworthy object, except by the direction of a law officer, such as a coroner, or with the permission of the legal representatives of the deceased, is not a misdemeanour at common law. The Anatomy Act simply saves from its provisions those who are 'required or directed by competent legal authority' to make such examinations, and the question remains, therefore, open as to who have that legal right. If, as it would appear, that right must be vested in the legal representatives, or, in the case of an inquest, in the coroner, it follows that its assertion by others is an invasion of those rights. The matter, however, is so easily settled without litigation, by applying to the nearest relatives for consent, as recommended by the magistrate, that it is much

to be hoped no future misunderstandings will arise on so painful a subject. It may be added that any act provocative of a breach of the peace is indictable as a misdemeanour at common law; and with a certain class of the population, and, indeed, with a certain body of religionists, any mutilation of a corpse is deemed an act of desecration, and has a tendency to arouse most angry feelings. The interests of pathology and science are by them alike ignored where the remains of those near and dear to them are concerned. As a body can be interred without a certificate of the cause of death, upon proper information to that effect being furnished by the officiating minister to the Registrar, the inability to give such certificate without a post-mortem examination would be no defence to a prosecution such as has been intimated. But surely charitable institutions need not a homily upon charity itself; and the noble Profession of Medicine is to much devoted to the alleviation of pain to heedlessly inflict it, even in the interest of science and with the sincerest desire to promote it."

This view of the matter is a new one, and worth the consideration of the authorities of our public charities. Although no opposition will probably ever arise, except from the lowest stratum of society, still it would be better to remove all ground of complaint, either by making the examination of the dead a fundamental rule of the Hospital, and a condition for the admission of patients, or by obtaining fresh legislation on the subject.

OUR OWN CORRESPONDENT AT THE SEAT OF WAR.

At the beginning of the present war, we complacently congratulated ourselves on the idea that we had five Medical and Surgical correspondents, attached either to the regular armies on either side or to some one of the ambulances which are intended to supplement, by private benevolence, the shortcomings of the regular service for the sick and wounded. Our readers will have noticed that their communications have been conspicuous by their absence, and will allow us to tell them why. One gentleman who has just returned from the seat of war admits that he has well deserved the title of correspondent *à non correspondendo*, and gives his reasons. His instructions were to omit all the harrowing, blood-curdling details, which are found in too great abundance in the public newspapers, and send us such material as should show the condition and progress of military Medicine and Surgery—such, in fact, as the excellent "Notes from the War," by Mr. Treherne Norton, which we are now publishing. But this he has found to be impossible. After some long time spent in Paris, vainly endeavouring to get attached to MacMahon's army, he joined an international ambulance, which departed for Sedan; thence he went to Bazeille, and afterwards to Balan. Six weeks of incessant toil were relieved by no intervals favourable for writing; whilst the materials, in the shape of cases, were wanting, from the incessant removal of the wounded at an early stage, before time was allowed for giving the fair *results* of the cases, and from the want of necessary food and medicine, and of subsistence for the Doctors and nurses. The patients who fell under his care were the wounded French prisoners and wounded Bavarians. And here he says that a most marked distinction was found between the Prussians proper and the Bavarians. The latter seemed to be from a lower stratum of society, worse fed and cared for, and less able to bear fatigue; nay, our correspondent believes (although he confesses that his impressions are not shared by some of his colleagues) that they have been designedly put in the foremost place as food for cannon, and to bear the hardest knocks, whilst the more favoured Prussians are spared, and, if wounded or sick, are better tended and nursed. Our correspondent describes these Bavarians as coming to Hospital, in large numbers, for what might be called typhus, but which the men described by saying they were "used up." Our correspondent tried hard to take plaster casts of the faces of some of these living men, as models of the appearances in what is seen in Ireland in the famine fevers and typhus; but the plaster of Paris sent for the treatment of fractures would not "set." Food and warmth, with morphia and chlorodyne, were the remedies which, without any attempts at diagnosis or special treatment, restored these used-up Bavarians. There was considerable difficulty, however, in feeding them. As for extract of meat, they loathed it, and swore that the soup made of it was the water in which wounds had been washed; they were always clamouring for water soup, milk soup, or onion soup. They would not have brandy nor red wine either, but were always craving for white wine. The French, on the contrary, preferred red wine. The Prussian wounded were well cared for in their national army Hospitals, where they were attended by some of the first Surgeons from Berlin. He did not think it a sign of vigour in the Prussian Army Medical Service that civilians were called in to operate, and the army Surgeons expected to defer to their opinions. From our correspondent's experience, surgical operations did badly; but neither the want of supplies nor any other circumstance seemed so unfavourable as the air, for, from the vicinity of hastily buried men and horses, the air outside the Hospitals was worse than inside. His experience led him to prefer nitrate of silver to carbolic acid in the treatment of unhealthy wounds.

MR. CURLING AND THE COURT OF EXAMINERS OF THE ROYAL COLLEGE OF SURGEONS.

We beg to lay before our readers the following letter from Mr. Curling to the President of the Royal College of Surgeons:—

"39, Grosvenor-street, October 11, 1870.

"Dear Mr. President,—As the election to fill three vacancies in the Court of Examiners will take place shortly, and as I am second on the list of Members of Council who have not served on the Court, I wish to state that I consider it my duty to decline at present to become a candidate for election. I have been induced to adopt this course in consequence of the prominent part which I have taken in endeavouring to separate the Examiners in Anatomy and Physiology from those in Surgery, on the ground that Surgeons who have never taught Anatomy and Physiology, or who have long ceased to do so, are not the best qualified to conduct the examinations on these subjects. The principle of the separation has since been affirmed by the Council, but as action upon it has been deferred, a candidature on my part would be inconsistent with the object for which I have contended. I am desirous, however, of acting without prejudice to any claims I may possess to a place on the Court as Examiner in Surgery when the separation is carried out.

"I am, dear Mr. President,

"Yours faithfully

"T. B. Curling.

"To Sir William Fergusson, Bart.,
"President of the Royal College of Surgeons."

TYPHOID FEVER AT ISLINGTON.

We learn, from the late monthly reports of the Medical Officer of Health for Islington, that a serious outbreak of typhoid fever happened in a limited district of that parish during the months of July and August, not being satisfactorily explicable by defects of drainage. It is rumoured that the spread of the disease chiefly took place through the distribution of milk, and this opinion is strongly maintained by some of the local Practitioners. Dr. Ballard, to whom the Profession look for a decision upon this point, has hitherto wisely abstained from committing himself to an opinion; but we learn that he is making an exhaustive investigation, and has promised a paper upon the subject to the Association of Medical Officers of Health. There are unusual difficulties in the inquiry, arising out of the fact that nearly all the cases occurred in houses occupied by the better class of inhabitants, and were attended by private Practitioners with whom Dr. Ballard is not in regular official communication, while several families were attacked in the country during their holiday trips. The inquiry is one of so great public importance that it is to be hoped that such Medical gentleman as may have attended cases of typhoid in Islington, and especially in Holloway, during the months referred to will not fail to forward to Dr. Ballard information

of their cases. A proceeding such as this, which they may not feel justified in adopting at ordinary seasons, becomes, under these circumstances, a public duty. In a large number of instances this duty has been amply recognised, both by local Practitioners and others who have attended cases from Islington in various parts of the country.

FEVER IN LIVERPOOL.

Relapsing fever still continues to spread in Liverpool. At the weekly meeting of the workhouse committee, held on the 14th inst., 1306 cases were reported to be under treatment in the parish institutions, being an increase of 60 during the week, and 264 at their own homes. The numbers in that portion of the town comprised within the Toxteth Union are proportionately high; and the admirable fever Hospital attached to its workhouse Hospital being full, the guardians are having three sheds erected, which will afford accommodation for 95 additional patients.

VISIT OF THE PRINCESS OF WALES TO THE HOSPITAL FOR SICK CHILDREN, EDINBURGH.

Last week the Princess of Wales and suite visited the Children's Hospital at Edinburgh. No preparations were made for the reception of the Royal party, and the Hospital was seen in its ordinary condition. The Princess was received by Lord Ardmillan, one of the Vice-Presidents of the Institution, and Dr. Matthews Duncan, Dr. P. Ritchie, and Dr. Gamgee, Physicians to the Hospital. The Princess expressed her gratification at the visit and with the provision made for the relief of sickness among the children of the poor.

DEATH FROM FOOTBALL.

The death of a fine man has been reported during the past week as having been caused by peritonitis, the result of rupture of the small intestine, in consequence of his having sustained a severe blow in the epigastrium from the elbow of an opponent in the game. The occasional occurrence of such sad events, and the risk of their repetition, have hitherto failed—and are likely to continue to fail—in producing among lads and young men such a degree of caution in their amusements as would tend to protect themselves and others from injury. We would find it a fruitless task to preach down football, cricket, or other games in which bodily strength and agility are cultivated and displayed. We have, indeed, no desire to do so; but it may be in our power as Medical men to give hints occasionally, by which the risks encountered in such games may be diminished. One such, on the present occasion, would be never to play with a full stomach. We are not aware that the young gentleman whose case we have seen recorded had eaten a meal shortly before playing, but we are certainly of opinion that the risk of ruptnre or contusion of the abdominal viscera would, as a rule, be much less if the intestines—particularly the small—were empty, rather than distended. It would also be a wise precaution to empty the bladder before entering upon such violent games.

THE DELHI BOIL.

The Report of the Army Medical Department for 1868 contains papers on this subject by Staff Assistant-Surgeon J. Fleming and Staff Surgeon-Major Alexander Smith, M.D., with remarks by Professor Aitkin. Both observers agree in describing the disease as of local rather than of constitutional nature. They both describe the boils as being found, on microscopic examination, to contain egg-shaped bodies, with distinct cell-walls and granular contents. Dr. Smith, from peculiar movements observed in some of these bodies, inclines to the opinion that they are living distomata, and that the boils are merely the breeding-places of animalcules, which, compelled by the laws of alternate generation, find in the water used for washing the means of entering the skin, by themselves or their ova, either through the natural pores or through abrasions on the surface. He considers this opinion to be strengthened by the fact that the sores most frequently appear on those parts of the body which are most frequently washed, and are, at the same time, least rapidly and thoroughly dried. He also states that the well water of Delhi, used almost exclusively for washing, contains a profusion of minute animal life, but he has not yet succeeded in identifying any similarity between the water animalcules and the organisms which he observed in the contents of the Delhi sores. Assistant-Surgeon Fleming gives a somewhat similar account. He states that he has noticed in many cases, at some stage before ulceration, yellowish, deep-seated spots about the centre of the boil. These spots are found to be circular yellowish bodies, with glistening capsules, which may be detected with the naked eye, and can readily be removed. Examined with the microscope, they seem to be composed of a fibrous envelope, arranged in consecutive laminæ, inclosing fluid contents. They are not so transparent as the ova of animal parasites, and are of a greater relative size. Professor Aitken states that, in a later communication, Assistant-Surgeon Fleming appears doubtful as to the nature of these bodies, and thinks that they may be modified hair-bulbs or gland-ducts. Professor Aitken says that if they are not modified hair-bulbs only, they are more probably the ova of distomata than distomata themselves; that their site is more consistent with this view than that of their being mature distomata, which are found in the intestines and bile-ducts of men and other animals but the ova of which are well known to exist in foul water, and to find a place for the first stages of development in the bodies of soft animals, such as fish, mussels, snails, and the like. The mature distoma is rather a large parasite, but the egg varies extremely in size in the various kinds. His remarks are illustrated by drawings of the various distomata and their ova, as found in man and in certain fish, and he expresses the opinion that, although the appearances described by Dr. Smith and Assistant-Surgeon Fleming are not exactly similar, yet their dissimilarity is quite in keeping with the extremely varied forms in which distomata are found in the bodies of man and animals. We have reason to believe, however, that Assistant-Surgeon Fleming has, on further research, carried on at Delhi, come to the conclusion that the spherical bodies which he formerly described as the ova of parasites, are in reality a specific form of cell-growth, attacking the hair-bulbs and sheaths of the hair, thereby producing structural modifications of these tissues, and ultimately destroying them and the papillæ of the skin. The nature of this cell-growth has yet to be determined; but as to its specific nature there can be little doubt, as Assistant-Surgeon Fleming has, we are informed, proved by experiment on himself and others, that pus *alone* from a Delhi sore will not produce the disease.

DEATH FROM CHLOROFORM IN JAPAN.

As might have been expected, the verdict of the jury in a case of death from chloroform, reported in our last number, has attracted much attention in China and Japan. It would, indeed, have been remarkable had it been otherwise. That verdict, if allowed to stand, would place in peril any Surgeon or Physician who thought it his duty to give chloroform in any case or for any purpose. Sir Edmond Hornby, the Chief Justice of China and Japan, is a man of the highest intelligence, and is not likely to take a narrow view of the question, which will probably be brought before him in his judicial capacity. We are glad to see, by the *North China Daily News*, that our brethren in Shanghai are fully alive to the danger of allowing such a verdict as that passed in the case of Captain Gilfillan to remain on record. The following spirited letter has been addressed to the Chief Justice:—

"Sir,—We, the undersigned Physicians and Surgeons

practising in Shanghai, have read with astonishment and consternation the Medical testimony given at the inquest lately held at Yokohama, on the body of a certain Captain Gilfillan, who died during the administration of chloroform. Our personal experience is diametrically opposed to the principles laid down by the Medical witnesses at the inquest, and the recognised authorities are equally opposed to those principles. As we have some reason to believe that the case may be brought before you officially, we beg that you will be good enough to accept the above statement, not as one whence an inference as to the merits might possibly be deduced, but as a reason for the offer which we hereby make—namely, either to collect, for the assistance of the Court, such a mass of recorded testimony, bearing on this case, as the Professional libraries in the settlement may enable us to gather, or to make a conjoint affidavit recording our personal experience.

"We fear that all the Professional men in Yokohama have already appeared at the inquest, and that therefore, unless evidence such as we offer is brought forward, not only will Dr. Dalliston be likely to suffer unjustly at the hands of a jury, misled by evidence which they have no means of verifying, but a most serious wrong will be done to the Medical Profession and the public. To the former, by robbing them of that reputation for scrupulous care which they have fairly earned, and to the latter by diminishing or destroying their confidence in a drug which, we need not tell you, has done more to alleviate physical pain than has any other discovery whatever."

We have some reason to believe that the Medical Practitioners of Yokohama have taken a too *personal* view of the case lately before the coroner. At all events, it is important that Medical testimony should be obtained at a distance from the scene of the catastrophe.

THE PRUSSIAN MEDICAL SERVICE.

It was generally supposed that English Military and Naval Surgeons were worse off than those of any other European State. It will be seen from the following interesting extract from the *Daily Telegraph* that the Prussian Army Surgeons are indeed much worse off than are our own :—

"Perfect, however, as the organisation of the Prussian army is in most respects, one portion seems to require a most thorough remodelling. I refer to the Medical department. In time of peace the Medical establishment of each regiment, consisting of three battalions, is six Medical officers. In time of war there must be an addition; and, Prussia being a purely military nation, the call for Medical assistance to supply the wants of its huge army is naturally great. Medical men, old or young, competent or incompetent, are gladly taken; and the consequence is, that as it was in our service, so it is here—many an officer would rather endure pain and suffering than send for his 'regimental persecutor.' First and foremost, the Prussians have no nucleus from which to form a thoroughly efficient military Medical staff. They possess no college where the student can study those branches of his Profession which will eminently fit him to take the position of a regimental Assistant-Surgeon. In order that he may learn to erect 'a field Hospital,' to practise field Surgery, to know what should be the diet of a wounded man under the peculiar circumstances amid which, from the scarcity of material, the army Surgeon must find himself in a campaign—that he may be acquainted with the best arrangements with regard to water—the organisation of temporary Hospitals in towns and villages, sheds or barns, railway stations or tents—the best methods for supplying the deficiencies of good old linen, bandages, or lint—with a thousand other minor details that are necessary to the peculiar education, so to say, which the army Surgeon requires, good schools are needed. The French, and we ourselves, have such institutions, though still susceptible of much improvement. It is, of course, but seldom that we can learn from experience—that rude schoolmaster—where the shoe pinches; all the more need for us to take warning and improve when we have the opportunity; for, although we are far in advance of Germany in this essential detail, we have yet much to learn.

"The Prussian Medical man, to qualify himself for service, must spend five years in the Medical schools; afterwards, before he can reach the rank of captain or regimental Surgeon, he will in nine cases out of ten have to serve twenty-five years or more in the army, and will then receive only half a captain's pay. He is now an old man, and for the declining years of his life no provision is made—he receives no pension. The usual salve to a soldier's wounds, privations, and sickness, in the shape of a medal, is denied to him; that is to say, he receives his decoration with the riband of a non-combatant attached to it; whilst the orderly who holds his horse—for all Medical men ride—receives that of a combatant. His position is doubly uncomfortable under fire; he has not the excitement of the fight to carry off that nervous feeling of which the best soldier cannot deny the possession when he first goes into action. He must witness the fearful effects of shot and shell upon the human frame, while those same missiles are flying thickly around him; for it is a great mistake to think that a Surgeon is never under fire. I contend that he is continuously exposed; if he is not, he does not faithfully perform his duty. In the present war I have seen Prussian Surgeons in the foremost positions quietly and dexterously performing their duties, while shot and shell have been flying all about them. Is it, therefore, surprising that those possessing Medical skill, or aptitude for their Profession, prefer going into private life and practising as civilians, where they can obtain a better livelihood and lay up something for the future—leaving the comparative inferior members of the Profession to care for the wants of the unfortunate soldier? It is true that in this war many eminent Medical men from Berlin and all the towns of Germany have flocked to assist their country; but I am sorry to say that the want of good and efficient Medical men is deeply and fearfully felt."

FROM ABROAD.—PROFESSOR VIRCHOW ON THE WAR.

Professor Virchow prefaces the 50th volume of his well-known *Archiv* with some interesting observations :—

"While we were getting together the material for the first volume of the sixth decade of this journal, a new war burst out, which has called most of our contributors to heavy work either in the field or the Hospital. Some ideas which we had intended to preface the volume with, having in view the encouragement of international co-operation in important work, must be deferred until the passion of excited nations has issued in bloody combat. While battle-fields are deciding the fate of nations, we have not the tranquility of mind requisite for the orderly arrangement of ideas for which quietude is essential.

"The *Archiv* has already passed through some troubled years, but nothing has so seized upon our entire life and sensibility as this outbreak, although we are only at the beginning of the war. Its suddenness, the frivolity of its pretext, the immensity of national possessions to be defended or won, the acrimony of the contest increased by the remembrance of many wrongs—all these have combined to produce an amount of excitement such as few living persons have ever experienced. In the midst of earnest work, which was not without its own serious struggles—of work which embraced every province of human exertion, the State, society, religion, and science—the insupportable assumption of an ambitious neighbour comes to disturb us, and forces us to our common defence. We must conquer, so as at last to be left quiet in our own home. Sad enough it is that we are not in a position to separate the government which has brought this war upon us from the people which, through it, have been led into war. Well do we know what we owe to this people, and Germany has always been foremost in acknowledging it. German science and Medicine, especially, entered with enthusiasm on the road which the great French thinkers of the end of the last and the beginning of the present century had opened up, and even when they pursued this way independently, and kept adding new and still new gains of science to the accumulated stock, they have always borne in mind with gratitude those who inaugurated the new path.

"Slowly, yet uninterruptedly, however, German science has continued its progress; and the best of the French *savants* have long since seen and admitted that they have something to learn of us, and that, in many things, more may be learned here than in France. The German methods, the German laboratories, the German universities and learned schools have become objects of attention, and even of study, of thinking and honoured men in France. It is true that the envious, the dishonourable, still more the ignorant, have not been wanting; and when it became obvious that foreigners could learn less in Paris than in the great centres of the German *savants*, when the star of the Paris school had paled; and when even the Paris students gave marked preference to those of their teachers who had learned and practised the German methods, then the 'Ecole Allemande' became an affront to the obstinate natives, and the narrowest national envy was awakened. Not without anxiety have we watched the growth of these evil elements. If such petty and unworthy conceptions gained fast hold of, and were spread by, men who were highly placed in science,

what were we to expect from the mass of the people? And, in fact, this well endowed, teachable, and amiable French people, how it has been illtreated and maintained in ignorance! Without knowing anything exact concerning our condition, institutions, or customs, and without being aware of our history, of our present strength, or even of the geography and statistics of our land, the French pamphleteers and journalists allowed themselves to dispose of us and our country, and the mass of the French, in their blindness and ignorance, accustomed themselves to look upon all this as justifiable. In verity, this was a 'war of ignorance' declared against us.

"We by no means deny that on our side, also, much ignorance, unnecessary prejudice, and many false suppositions prevail, and that there are many deficiencies in education among our combatants. But we are not altogether to blame for this. On the contrary, we have been striving for years to remedy these defects, and that we have not more completely succeeded is not a little owing to our appreciation of the well-known opinions and inclinations of our neighbour having served as a motive for giving a preponderating attention to the army rather than the school. Nevertheless, the influence of the school on the masses has been with us sufficient to justify those in authority stating that it was not merely the army, but also the school which gained us the victory of Königgrätz. It is certainly a consolatory reflection that true knowledge increases the difficulty of breaking peace, and is, therefore, a peace surety, but also that when war is unavoidable it strengthens the assurance of victory. True knowledge is humane knowledge, and, as the most complete and most beautiful blossom of human development, displays at the same time all the best peculiarities of the human mind and all the nobler sensibilities. We feel convinced that the war on our side will be humane, and carried on with cheerful self-sacrifice to a successful issue. On another occasion (in 1865), while treating of national development and the signification of natural science, I showed how much 'Romanismus,' and with it ignorance, had to answer for in the defective material and moral development of Austria. The present view which that State is constrained, since the catastrophe of Königgrätz, to take of the acknowledgment of the Concordat, indemnifies me for many gross injuries which that foreboding address drew upon me. For France, its fate advances still more rapidly. Already its troops quit the Papal States, and the unfortunate old man who first fulminated his anathema against all true human knowledge, remains, with his just won infallibility, the football of foreign influence and the symbol of the lack of inner and external independence. These things will open people's eyes, and will show them that they must seek the solution of their problems by doing with emulation and without hatred and envy the work of peace, and, above all, chasing away with a firm hand the accursed twin sisters, Ignorance and Immorality.

"Medicine will soon be called upon to prepare the area of peace. Amidst the horrors of war it is it, and only it, that is summoned officially to the battle-field as the representative of humanity and peace among men. Without distinction she takes friend and foe in her helping arms, healing the bleeding wound, tending the broken limb, and cooling the parched lips. Surrounded by the smoke of the battle-field, she unfolds the red cross banner, which all civilised nations have now agreed to adopt as the emblem of inviolability, erecting for the wounded an asylum, which not only shelters them from further injury but assures them active aid. Fragile sheds and tents spring up on every side where there is need, tabernacles of human love and compassion. Let us show ourselves worthy of the distinction that has been conferred on us. Let us be the high priests of humanity in war, spreading blessings for all. But let us always remember that the higher problems are not to be solved by war, and that strenuous and long continued labour remains for peace, in order to render humane knowledge and actions the basis of all public institutions, in opposition to private interests. We must not forget that in the present war we are engaged in a struggle with a people who, after ourselves, has made the greatest sacrifices for the liberation of mankind, and with whom, united in peace, we may be enabled to exhibit the elevated example of an emulative struggle in true humane work. The great principles of the revolution, which are now mendaciously called up against us, have perhaps nowhere more supporters than among those who now are opposed to France, weapons in hand. What we are fighting against is essentially nothing else than ignorance and its consequences — untruthfulness, immorality, and arrogance.

"Medical Practitioners who, during even the time of war, have of necessity a certain amount of community of action in the two armies, should at the earliest period put themselves forward and prepare the way for a more intimate understanding. The entire realm of science should join its influence in forwarding on the return of peace, the reconciliation of men's minds, and the recognition of the community of interests. May, then, each person of both nations learn to see that each can only assure the basis of its effectiveness on the ground of national development, and that this ground must be free and secure from foreign interference. Such merely national development has, however, to be raised up to the highest aims of the human race: and this is the elevated problem which at the present time, when the hands of the Catholic church have definitively failed to grasp it, should be taken up by science. May it fall to the lot of science to appreciate and realise the beautiful words—'Peace on earth!'"

ARMY MEDICAL RESERVE.

We have been favoured with the following scheme for the formation of an Army Medical Reserve, which seems to us to deserve the attention of the authorities of the Army Medical Department:—

Of all the lessons to be learned from the Franco-Prussian war, none has been more forcibly demonstrated than the impossibility of *suddenly* expanding, even the most perfect "*peace establishment*" of Medical officers, to an extent sufficient to meet the necessities of a single general action of modern warfare; and none has been more quickly acknowledged, not only by the powers engaged, but by Russia, who has ordered "that a Military Commission shall consider the most efficient means of *at once* embodying a reserve of 1000 Medical officers." It behoves us, then, not merely in a military point of view, but as a civilised nation, to make such provision as the present experience has proved to be indispensable, that, should occasion arise, our soldiers may not have the double danger to encounter of death before the enemy and of destruction from neglect upon the field of battle.

That the need of a more expansive Medical system was felt, even in our own small wars, as in New Zealand, is evident from the recent ill-judged efforts to remedy the acknowledged defect by reverting to the old and long-abandoned plan of abolishing *regimental Medical officers*, and concentrating all in a general Medical staff, thereby retrograding from the experience of the rest of Europe, and following darkly some vague idea, which has taken possession of the Army Medical authorities, that a regimental Medical officer under *another name* could be made more portable and ubiquitous—compensating for a numerical deficiency by a juggle in *nomenclature*.

The necessity for a reserve being undeniable, the question of its formation can no longer be postponed.

From the existing department an army Medical reserve of experienced and efficient military Surgeons might be organised by the simple expedient of allowing all Medical officers who have completed 20 years' full-pay service to retire on the highest rate of pension now offered at 25 years, provided that they enrol themselves on the reserve list, liable up to the age of 55 years (at which they are considered officially useless) to be recalled in case of active service.

The cost of this reserve establishment can be computed with exactness, and its extreme economy must be no slight argument in its favour.

The removal from the acting list of a Surgeon over twenty years' service, and the delegation of his duties to one under that period of service, is a *saving* to the State of 3s. 6d. *per day*, that being the difference of pay between the grades, making a total in five years of £319 7s. 6d.; whereas the difference of value between a pension given to one who has become unserviceable at 20 years' service (£301), and that offered at 25 years (£346), is £45 a year, making in five years a total of £225, which being deducted from the £319 saved by the performance of the duty by a Surgeon under 20 years' service, instead of a Surgeon-Major, shows a balance in favour of Government of £94.

The bargain, therefore, stands thus:—The State secures the services of a reserve Medical officer for an average of twelve years, plus £94, in lieu of the remission of five years' service to the individual.

By the foregoing scheme, also, would be relieved the present hopeless lock in the promotion of the department, which disheartens its members, and deters candidates of a *high* order from its vacancies.

X. Y. Z.

October 10, 1870.

DR. W. McCORMAC'S REPORT ON HIS MEDICAL AND SURGICAL WORK IN THE PRESENT WAR.

(To Colonel Loyd-Lindsay, V.C., M.P.)

London, October 18, 1870.

My dear Colonel Lindsay,—I have just returned to England, and purpose making a brief report to you as to how our work at Sedan was wound up.

You have already heard from Dr. Sims the early part of the history of the Anglo-American ambulance, how it started from Paris under the auspices of the French Society, and how it worked at Sedan. I would only wish to add my testimony, in confirmation of what Dr. Sims says in his report, of the perfect harmony which existed amongst the members of the ambulance corps. Between Dr. Sims and myself as chief Surgeons, and between us and every other member of the staff in the Caserne d'Asfeld, nothing but the kindliest feeling prevailed, and we each and all endeavoured, under what proved at first to be very trying circumstances, to do our duty to the utmost.

In accordance with our instructions on leaving Paris, we tried, after arriving at Sedan, to reach the front and MacMahon's head-quarters. The Vicomte de Chezelles, *Courier des Ambulances*, acted as our guide. Through a combination of circumstances we were delayed that night, August 30, at the railway station near Sedan. The Emperor, MacMahon, and the whole *Etat-Major* arrived during the night. In place, therefore, of our going to the front, the front came to us. Then were the negotiations completed, which placed us in possession of a large Hospital of 384 beds on the battle-field itself. This piece of exceptional good fortune has enabled the Anglo-American ambulance to render services such as no other ambulance in either army has been as yet in a position to perform during this war.

Of course, during the first ten days or a fortnight we were short-handed, and overworked; such a result is inevitable after all great battles, taking place, as they do, at uncertain times and places. I find in the diary I kept, that we have been sometimes working for twenty hours at a time, performing operations, noting cases, and making dressings. I have heard of Surgeons working for much longer spells after battles; but it is questionable if work done under like circumstances is of advantage to the wounded. Not only does one suffer from physical fatigue, but one loses that clear intelligence so urgently demanded by the difficulty and severity of the cases.

Captain Brackenbury, whose invaluable aid I have already had occasion to praise as it deserves, visited us on September 11, and shortly after his visit there flowed in upon us stores of every kind, and Surgical assistance in the persons of members of the English Society. Dr. Sims has already awarded a just tribute of praise to the lady nurses. I cordially endorse what he has said. I only wish we had had them from the outset. In that case, many lives which were sacrificed through want of adequate nursing, or rather through the absence of any nursing at all, would have been saved. I suppose that it is unavoidable, but much that might have been done was, through the force of circumstances, left undone; but it is not the less distressing to reflect upon afterwards.

Dr. Sims, in his letter to you, speaks flatteringly of the Surgical report I shall be able to furnish. I fear he will be disappointed. I know I am so myself. In fact, the keeping of an accurate Medical and Surgical record was, from the circumstances, simply impossible. I alone attempted it, and the result is necessarily very imperfect. When it is considered that, at one time, we had 400 cases under treatment—the majority in the Hospital itself, a building of two floors, upwards of 400 feet long, but a large number in tents stretching over some acres of ground—when we reflect that, besides continual changing of the patients from one part of the house to another, many were discharged after a day or two's treatment, and many died within a few hours of their admission, or within a day or two of their entrance into the Hospital, the difficulties of investigating the nature of their injuries, and otherwise attending them, much less keeping an accurate register of their cases, will be acknowledged. What harassed exceedingly our already overworked staff, were the evacuations of fresh patients upon us. For example, on September 9, we received 65 seriously wounded men from various ambulances. On September 12, 130 new cases were sent to us, 105 being wounded, and 25 being cases of fever. On the 14th and on the 15th were sent 50 fresh cases, 25 each day.

During the first fortnight I performed, with one or two exceptions, all the operations, and attended to numberless demands upon my time and attention which the needs of so large an establishment entail. I cannot sufficiently express my recognition of the active, invaluable assistance rendered by Dr. Sims. He was little short of omnipresent, and his thoughtful, kindly counsel was appreciated, as it ought to be, by everyone. I trust, however, I have urged something in extenuation of the many deficiencies which must exist in a Medical history of our work, and which none can deplore more than myself.

In the meantime, subject to such emendations as may afterwards prove needful, I present for the information of the Society a *résumé* of our work at Asfeld. I trust that shortly I may receive from Dr. Frank the account of his not less important and interesting work at Balan, when I will add together all the results achcived by the Anglo-American ambulance at Sedan:—

Wounded, inscribed and registered, including a few sick	593
Sick and wounded, not registered, but treated in Hospital	200
Wounded, dressed, and attended as *externe* patients, during the battles of August 31 and September 1	400
Total	1193

Table of Injuries.

	No. of cases.	Deaths.
Gunshot wounds of head, face, and neck	38	10
Gunshot wounds, without penetration, of trunk	29	4
Penetrating wounds of chest	21	10
„ „ abdomen	3	3
„ „ pelvis	9	4
„ „ joints	35	21
Wounds around joints, close to, but not penetrating	25	1
Gunshot wounds, causing fractures of bones and limbs	91	35
Gunshot wounds of extremities, without fracture	136	9
Gunshot wounds of hand and foot	55	3
Sprains, burns, contusions, etc.	18	1

Table of Operations.

Disarticulation of joints, including 2 hip-joints, and 3 knee-joint amputations	11	9
Amputations of limbs, including 14 thigh, 19 leg, and 2 double amputations	77	30
Resections of joints, 1 knee, 2 shoulder, 9 elbow, a double resection shoulder and elbow, and resections of long bones	15	7
Ligature of subclavian artery	2	2
Ligature of common carotid artery	2	1
Ligature of common femoral artery	1	1
Ligature of dorsolis pedis artery	1	0

(All for secondary hæmorrhage.)

The total number of our deaths was 117—30 at least being from pyæmia; many of those patients died within forty-eight hours of their arrival in the Hospital. Exaggerated statements of our rate of mortality, as all ill-natured rumours do, found ready currency. These statistics disprove them. We have not had, by any means, an excessive mortality. Considering the grave nature of the cases—considering how the dying and the deadly sick and wounded, and often neglected patients were crowded in upon us, I contend our death rate has been small, and this I attribute in the main to open windows and plenty of carbolic acid. Our deaths were caused chiefly by exhaustion, by diarrhœa, by dysentery, and mainly after operation by that hideous scourge, pyæmia, which, however, was quite as common, if not more so, in the small houses and chateaux, with only a few patients in each, as it was in our larger establishment.

I have only one complaint to make, and that is, that I did not get an opportunity of giving Professor Lister's plan of treating wounds a full and fair trial. Through some confusion my repeated messages for "Lister's dressings" were not attended to. In my Hospital at home I had given this method a trial, such as induced me to repose great confidence in it as a means of averting many of the evil consequences following operations and injuries, which hitherto seemed inevitable, and the opportunity, now lost, of giving it a sort of crucial trial, does not unfrequently occur. One thing is certain, however: our rate of mortality began to increase directly after the evacuations upon us of the 9th and 12th, and this, as well from the deaths amongst those sent in, as from those amongst our

original patients, previously in most excellent hygienic conditions.

Amongst the wounded sent in by evacuations from elsewhere were many who had received inadequate Surgical care, and many whose injuries demanded operative interference, but who were not then in a condition to admit of its being afforded.

I would wish to record the gratitude of both officers and men for what we had done for them, often expressed with tears in their eyes. It is something never to be forgotten.

I should like, also, to mention a visit I received from General Stubs Arzt Stromeyer, Surgeon-General of the Prussian Army. He expressed himself as being exceedingly pleased with our arrangements, and the way we managed our cases. He afterwards asked me to visit him at his ambulance at Floing, near Sedan, and I hope I do not entertain an unreasonable feeling of pride in consequence of what occurred there, and which he was good enough to embody in the following letter:—

"Dr. W. McCormac is one of the most interesting persons whom I have had the pleasure of becoming acquainted with during the present war. His winning kindness towards the wounded, and to everyone else, is extremely attractive. His boldness as an operator, and his ability in dealing with the most serious cases, deserves the highest acknowledgment.

"In the battle of Sedan, where he had arrived before September 1, he has had a grand opportunity to practise the acknowledged principles of English military Surgery in numerous primary operations. Should he be called upon to come forward as public instructor of Surgery, the experience he has acquired in this country, in conjunction with a private practice extending over many years, will be of the greatest advantage to his pupils, and will bring honour to his own country, especially as primary operations have, in these latter years, been neglected in many other countries.

"P.S.—To-day, as Dr. McCormac came to Floing, I had an opportunity of seeing him operate. I invited him to undertake an amputation of the thigh, just about to be performed, and all the Surgeons present were of my own opinion, that his elegance and self-command in operating, his care in securing the vessels, are quite unsurpassed. I must own that, after Liston, I have seen nothing similar, and that, Prof. Esmarch excepted, Germany cannot show such an operator as Dr. McCormac."

On Sunday, October 9th, there were only 15 patients remaining in the Caserne d'Asfeld, and these I transferred to the care of a Dutch Ambulance, just arrived at Sedan, with plenty of both money and material, but with nothing to do. I am sure they will be well cared for.

Of the departure of Dr. Pratt for Paris, and of Dr. Frank with an ambulance corps organised by himself, I need not trouble you, who are already conversant with the circumstances.

Coming home through Brussels, I called, with ten representatives of the French Society for Aid to the Wounded, and received their very hearty thanks for the work we had done. I think the English Society cannot fail to be gratified with the letter the President of the French Society, Colonel Huber Saladin, gave me, with which I conclude this most hurried and imperfect sketch(a) of the work done by the Anglo-American Ambulance at Sedan.

I have the honour to subscribe myself,
Your very obedient servant,
William McCormac, M.D., F.R.C.S.,
Surgeon-in-Chief,
Anglo-American Ambulance at Sedan.

A CONTRIBUTION TO THE HISTORY OF EXTRACT OF MEAT.

While in our ignorance we have been under the impression that the first idea of Liebig's extract was due to Proust and Parmentier, in the early part of the present century, we now learn, from a recent article by Dr. Pott in Giebel u. Siewert's *Zeitschrift für die Gesammten Naturwissenschaften*, that in the Dutch East Indian possessions, as Java, Sumatra, etc., extracts of flesh, fish, and crab have been prepared and used by the natives for at least several centuries, and probably longer. They have adopted a rough but efficient mode of reducing to the form of extracts—or, as they term them, *Petis*—certain meats, sea-fish, and little marine crabs of about the size of a pea, known as Garnels. By this means an immense amount of food that would be otherwise lost is utilised, and there is scarcely a kitchen in the Archipelago in which these extracts are not to be found. All sauces and gravies are flavoured and strengthened with these extracts, and none of the celebrated native dishes, as Sambal kerri or Lode rujak, are regarded as perfect if they do not contain one or more of these Petis; and Dutch families that have returned home lament for years over the absence of this special variety of food.

The native preparations that most nearly approach in taste to Liebig's extract are Petis karban (prepared from Bubalus karban), and Petis sapie (prepared from the sapie, or Malay ox). These Petis are just as serviceable as Liebig's extract for the preparation of a strong, well-flavoured beef-tea. The fish and crab extracts do not serve for this purpose, since they communicate an oily taste to their watery solutions.

The method of preparing these Petis is simple and somewhat primitive. The raw material, after being boiled and comminuted, is placed under a press, which is provided with a lever weighted with a heavy stone. The expressed juice finds an outlet by an opening at the lower part of the press, and is then exposed to a moderate heat till it assumes the consistence of a syrup. The best Petis are prepared from perfectly fresh uncooked materials. An inferior kind is prepared from flesh and fish that have been dried, and to this the native name Dingding is applied, instead of Petis.

Dr. Pott has submitted three of these extracts to ultimate analysis—viz., Petis karban (or buffalo extract), Petis udang (crab extract), and Petis ikan lant (or fish extract). These preparations differ essentially in taste, odour, and colour. They all possess an intensely saline taste, in consequence of the accumulation of the organic salts caused by their great concentration; and in all of them a venison taste may be detected, associated with a sweet taste in buffalo and fish extracts. The odour is different in all, but more or less resembles that of venison. The colour of the buffalo extract is the darkest, while that of the fish extract is of a light brown. In cold water they are only partly soluble, but more so in hot water, although a residue always remains, and the solutions are not clear. The watery solutions of the buffalo and crab extracts are grey, while those of the fish extract are of a brown colour. The extracts do not readily undergo change, for boxes left open for sometime exhibited no traces of mould. We shall confine our remarks on the chemical composition of these substances to that of the buffalo extract. It contained 20·9 per cent. of water, 16·4 of ash, and 62·7 of organic matter. The nitrogen in the anhydrous extract amounted to 9·54 per cent. In the ash there was found 43·2 per cent. of potash, 27·6 of phosphoric acid, 9·6 of soda, and 10·9 of chlorine. The extracts contained mere traces of gelatine, and gave no reaction of albumen.

As at the seat of its manufacture a pound of Petis costs only half a gulden, or less than a shilling, which is a mere trifle compared with the price of Liebig's extract, it is much to be desired that the best of these Javanese preparations should be introduced into the English market. We may add that two-pound boxes, hermetically closed, are prepared for exportation by one or two Dutch houses.

(a) Our space, unfortunately, precludes us from printing the valuable and interesting document alluded to by Dr. McCormac.

THE ANNUAL REPORT OF THE POOR-LAW BOARD.

No. V.

Number of Paupers.

Reverting to that part of the Report which deals with the question of expenditure, we find that, as already stated, the permanent increase in the cost of poor relief can, in the opinion of the Poor-law Board, be counterbalanced in no way except "by a reduction in the number of paupers." Whilst waiting for such healthy changes in the habits of the poor, and for such a revival of trade, as may bring about this desirable result, it may be well to ascertain clearly the past state of facts. As regards the number of paupers in receipt of relief, it appears that there were, on July 1, 1869, 977,519 of all classes, to be set against 971,387 on the same day of 1868, or an absolute increase of 6132, being 0·6 per cent. Again, that on January 1, 1870, there were 1,083,532 of all classes of paupers, against 1,046,569 at the same date in the preceding year; showing an absolute increase of 36,963, or 3·5 per cent. Making allowance for a few places from which returns had not been received when the report was issued, and taking the mean numbers on July 1 and January 1 respectively, in order to get at the average number for the year, the result is as follows:—Total number

of paupers 1,032,800 in 1868-69, against 1,018,140 in 1867-68, being an absolute increase of 14,660, or an increase per cent. of 1·4. In itself this increase is, of course, unsatisfactory, but if we include in our comparison not only the two last years, but also the preceding year, we find ground for hope—thus, broadly, the mean number of all classes in 1868-69 showed an increase of 2·6 per cent. against 1867-68, and the mean number in 1870; an increase of 1·4 per cent. against 1868-69. So that, if we could venture to trust that no disturbing cause would operate, we might expect for 1870-71 an increase of little more than ½ per cent. on 1869-70. But, alas, the logic of figures is inexorable only as regards the past, and experience has shown—Mr. Buckle notwithstanding—that, as regards the future, they are vain guides. A break-up of the weather at harvest-time, an outbreak of epidemic disease, or a British, as distinguished from a continental, war, may in a month or two dissipate all hope of a reduction in the number of paupers. So far as the war, within its present limits, is concerned, it should, we think, operate favourably on our own country. It had not been even whispered of when the report before us was presented, or the Poor-law Board might have ventured, as it seems to us, to have glanced at it as one of the possible means for that "reduction in the number of paupers" which is to counterbalance the permanent increase in the cost of relief. When our middle classes set out on their annual holiday, an incalculable sum of money, yearly withdrawn from the country for purposes of continental travel, will be sent flushing the channels of English, Irish, and Scotch watering-places. It will be supplemented by the pleasure-seekers of such few continental countries as are not affected by the war, and, to still more purpose, by the ostentatious munificence of American tourists. Each of these classes will call for a numerous army of those who, directly or indirectly, minister to their wants, and of all the money which they spend it cannot be but that some will find its way towards sustaining those who would otherwise swell the number of our paupers. Again, vigorous recruiting must catch here and there an able-bodied, hulking pauper, or casual tired of perfect freedom; and many of these, who would steutly resist—as they have done, over and over again—offers of regular hard work, properly paid for, may not be insensible to the blandishments of "Sergeant Kite," and, as they are proverbially careless of the future, may overlook the impending drill and discipline in view of the present "Queen's shilling." It is true that we have upon us even now the shadow of increased taxation; but, on the other hand, the money which that taxation may draw from the upper and middle classes will be spent *in this country*, and already shows its influence in the rumours of increased activity in dockyards and arsenals. Further, numberless trades, hitherto—either on account of workmen's combinations or want of technical education—powerless to compete with foreign rivals, are already reported as showing signs of revival, and may be expected to furnish food for many native mouths during the coming winter. Our anticipations may be falsified by such a set of the tide of war as may sweep us also into the current; but, failing this, it seems quite within the range of fair calculation that, in the twenty-third report of the Poor-law Board, Mr. Goschen may be able to record for 1870-71 that "reduction in the number of paupers" on which alone we are to rely for a decrease in our poor-rates.

There are, however, some other modes of reducing poor-rates—notably by such a liberal scale of payment to those with whom rests the care of the sick poor as will insure their ability to give to each pauper case that prompt and thorough attention which is best calculated to shorten the period of sickness, and, by consequence, the period of relief. There has been within the last few years a steady improvement in this particular, but much remains to be done. This is, we believe, a matter beyond the reach of the Poor-law Board, except in so far as they can exercise a kind of negative authority with the view of checking inequalities. At least, even if it be in their power to interfere positively, it would seem that it has been judged inexpedient to risk causing the feeling of irritation which would inevitably be nourished by any board of guardians against an officer whose pay had been increased over their heads. But no such action on the part of the central Board should be much longer needed if the improved tone beginning to be apparent amongst Poor-law guardians be maintained. Especially may this be looked for in the metropolis, where the guardians nominated under the Metropolitan Poor Act are acting as a valuable leaven to the previously dense mass. Numbering amongst them, as they do, the names of many conspicuous in the worlds of religion, philanthropy, and science, they are naturally looked to to supply such liberal support and encouragement to Medical officers as will enable them to do justice to their patients. They can then put them, with as little delay as possible, in the way of again earning their own living, and of removing from the rates the burden of their support.

Another sure mode of sensibly diminishing the time during which the poor are sick, and are therefore swelling the muster-roll of pauperism, lies in affording improved treatment in the way of infirmary accommodation and appliances. How large is the number of poor affected by an improvement of this kind will be appreciated by any one who will bear in mind that, as appears from the report before us, the sick in the country generally on the twelfth week of the half-year ended at Lady-day last constituted 12·8 per cent. of the out-door poor. To remove these, or a fair proportion of them, from their wretched homes into suitable infirmaries would appear one of the readiest modes of shortening their chargeability. Again, as regards in-door paupers, it may be stated in broad terms that, exclusive of the metropolis, nearly one-third of the inmates of workhouses are on the sick-list, while in London their numbers vary from one-third to nearly one-half. That much has been done towards an improvement in the treatment of the in-door sick we learn from portions of the report to which we have previously referred, and it is clearly demonstrated by the increased proportion which the charge for in-maintenance bears to other heads of expense in 1869 as compared with 1862. The expenditure in 1862 may be taken as a fair basis of comparison since it immediately preceded the period at which attention began to be directed to the necessity for a more humane treatment of inmates of workhouses generally. The report gives the following as the proportions:—

	1862.	1869.
In-maintenance	18·7	20·2
Out-relief	51·9	18·0
Maintenance of lunatics in asylums and licensed houses	7·9	9·3
Workhouse loans, and interest thereon	3·0	2·7
Salaries and rations of officers	11·0	10·4
Other expenses	7·5	9·4
	100	100

It will be well, before quitting this part of the report, to call attention to a remark of the Board, which should be borne in mind on a consideration of the published numbers of adult able-bodied paupers. Much misapprehension may thus be avoided. The report says:—"The term (adult able-bodied pauper) itself suggests the supposition that all the paupers returned under this head are persons able at the time of receiving relief to earn their own livelihood by labour, whereas, in fact, the class thus designated contains only a small proportion of such persons. The whole of that large proportion of the pauperism of the country which is caused by *temporary* sickness is included in this class. When persons ordinarily able to earn their livelihood are allowed relief on account of sickness, they are classed as able-bodied. If the sick pauper be the male head of a family, the whole family dependent on him are entered in the able-bodied list. If the relief is given for a sick wife or child of an able-bodied man, he and the member or members of his family who are sick are entered in this list. Widows or deserted wives able to earn wages, but not enough to maintain their families, are entered as 'able-bodied,' and this class, with their children, form a very large proportion of the whole. As evidence of prevalent destitution caused by want of employment or depression of trade, the number of the whole class is by no means a true criterion."

Belgian Care of the Wounded.—We find that some of the German journals are convinced of their error in charging the Belgians with neglecting the suffering Germans who pass through their hands. Whether these have been refugees expelled from France or the wounded resulting from the bloody battles just over the frontier, everything that humanity and generosity could suggest has been done. At the suggestion, and under the immediate superintendence, of the Queen of the Belgians, the princely château of Ciergnorn, built in a charming and healthy locality near Rochefort, has been converted into a temporary Hospital for both belligerents. Of its ferty beds, twenty-five are now occupied by Germans. Three Medical men, with numerous sisters and nurses, have it in charge, and the King's Physician, Dr. Wimmer, has carefully inspected it. Among other comforts is a good supply of French and German newspapers.—*Presse Belge*, October 9.

GENERAL CORRESPONDENCE.

REGISTRATION OF DISEASE.

LETTER FROM DR. R. FOWLER.

[To the Editor of the Medical Times and Gazette.]

SIR,—I was not on the *rôle* of speakers at the conjoint deputation of the British Medical Association, and Poor-law Medical Officers' Association, on Monday, October 17, to the President of the Board of Works. I therefore respectfully ask you to allow me to give, in your pages, my view of the connexion between the suggested scheme for the registration of disease, and the Poor-law Medical service.

The importance of registration was *in limine* acknowledged by Mr. Goschen. Recognition of disease is a necessary item of preventive medicine. I would add, that as it is a received axiom that the health of the whole nation is its wealth, so we must admit that to, as nearly as possible, perfect that whole, it is necessary to, as nearly as possible, perfect every individual part of the integer. Gwydyr-house well knows that the pauper population forms a no unimportant part of this great whole. It has been computed that at least two millions, or one-half of the working population annually pass under the actual care of the Poor-law Medical Service. That Service is under the authority of Gwydyr-house. Hence, the application of the conjoint deputation for the President's intercession.

The practicability of the valuable assistance of this Service to the suggested scheme is sufficiently apparent from the anxiety of the movers to gain its co-operation. The brains and the machinery for this co-operation are already existent.

Very unnecessary and uncalled-for remarks were made at the conference with Mr. Goschen on the professional inability of the Poor-law Medical staff to aid this useful hygienic movement

As an old union Medical officer of seventeen years' standing, I demur *in toto* to this deduction. It is true the Poor-law Medical Service has, since its establishment, done but little for scientific Medicine. The reason of this is not its Professional incapacity. Local parsimonies and petty jealousies have so cramped its zeal and energy, have so fettered its action and activity, and have so clerically occupied its days and nights, that its officers have had to ignore the scientific instruction and public advantage of their posts, and to waste their time and opportunity in the cumbrous and multitudinous detail of the pestle and the pen.

The "Medical Relief Book" affords a ready register for the information required. Although modified from what it originally was (with a very questionable benefit to some), it is still an overloaded drag on the collar of the conscientious worker. Notwithstanding its clerical exactions are absurdly, and sometimes literally, insisted on, it is, nevertheless, but seldom, if ever, indeed, referred to for the real treasures it contains. A curtailment of the useless columns on its pages would leave a valuable and available record of pauper sickness.

In my public speeches, as well as in my two examinations before Mr. Villiers' Select Committee on Poor Relief (England), I have invariably advocated the maxim that "Every labourer is worthy of his hire." I therefore cordially agree that the services of the busy bees who are expected to gather this honey for registration should have a suitable and tangible recognition.

The cost of the scheme is what this great rate-paying country "wants to know." No one was sufficiently prepared to inform Mr. Goschen on this point.

If the scheme in all its details and adjuncts is officially sanctioned, and is introduced *per se* as an additional part of the duty of each individual officer, I suggest that the rate of payment for the services of the Poor-law Medical staff might be equitably determined by a conference between Gwydyr-house and the Registrar-General's department. My late colleagues might safely leave their interests to the care of the combined heads and hands of such men as Mr. Goschen and Dr. Farr.

As is well known, I am, and always have been, very averse to this piecemeal or per case payment for accomplished work. If, therefore, the registration of the national sickness is to be made part and parcel of a reorganised Poor-law Medical Service of England and Wales, I would respectfully suggest to Mr. Goschen that a liberal treatment of his Medical staff would, I feel confident, ensure him a willing and ready compliance with this additional labour.

The time must come when the Poor-law Medical Service, which heretofore has been considered too exclusively curative, will go hand-in-hand with, or rather be the pioneer of, a national form of preventive Medicine. I might multiply instances of the comparative helplessness of the health officers without the co-operation of the union Surgeons. Lay inspectors (if they may be so called) are but puny substitutes. Inspection, to be valuable, should be skilled, frequent, irregular, and unlooked-for. Present inspection is, as a rule, unskilled, insufficient, and readily prepared for. The constant and ubiquitous presence of the Poor-law Surgeons amongst the very foci of contagion has never yet been efficiently utilised.

I am, &c. ROBERT FOWLER, M.D.

145, Bishopsgate-street Without, Oct. 18.

DR. TUSON'S BULLET EXTRACTOR.

LETTER FROM DR. WM. E. TUSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Although the tone pervading the letter of "A Surgeon Major, Bengal Army," regarding my bullet extractor (which appeared in your issue of October 15), renders it almost undeserving of a reply, I feel it to be due, not only to your readers generally, but to myself, to make the following statement:—

I never met the late Mr. Cole, nor have I seen the forceps referred to by your anonymous correspondent. I had heard on several occasions that Mr. Cole had constructed a ball forceps, but the description of it conveyed to me a distinct impression, which I still retain, that it did not present those features which constitute the most important peculiarity and novelty in mine—namely, being specially formed as a probe, without any wooden or ivory handle, and containing within it a traversing screw, capable of permanently securing the bullet when once grasped within the blades.

Having made inquiries of both the celebrated instrument makers alluded to by your correspondent, I am informed that they have no recollection whatever of Mr. Cole's instrument, and I am therefore unable to definitely compare it with mine, which I gladly would have done. I have, however, been favoured with an inspection of an excellent instrument of Messrs. Weiss's, which resembles mine in the points of possessing expanding blades and a central rod, by the action of which the bullet is pressed against the inner points of the blades; but the manner in which the blades are made to open and close, and the absence of the screw (which in my instrument serves to act as a screw ramrod when used in extracting a ball from a rifle), will, I venture to believe, be regarded as constituting an important difference. Under any circumstances, let me observe that my object in bringing forward my bullet extractor was not the desire to obtain the trivial credit which may or may not attach to it, but to assist, if possible, in saving a certain amount of human suffering; and I am the last person in the world to wish to deprive a brother Medical officer of any portion of the credit due to him, and am quite ready to confirm the eulogium passed by your correspondent on the late Mr. Cole.

I am, etc., WM. E. TUSON, M.D., F.R.C.S.,

14, St. James's-square. Surgeon, Bengal Army.

CURIOUS CASE OF MALFORMATION OF THE SEXUAL ORGANS.

LETTER FROM DR. E. G. WAKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Whilst attending an old man, lately deceased, I had the opportunity of seeing a rare conformation of the external genital organs, which you may think worthy of record.

The patient was suffering from valvular disease of the heart, with head symptoms, and during their occurrence suddenly lost the power of micturition. The bladder being full, greatly distended, and the hypogastric pain considerable, I determined to introduce a catheter; but you may guess my surprise at finding a total absence of the penis, and its place supplied by a cul-de-sac, an inch and a half deep. My first impression was that I had met with a case of hermaphrodism; the scrotum being well filled by the testes. With great trouble, however, I passed two fingers into the cavity, and found at the bottom of it an atrophied glans penis; and with still greater difficulty managed to draw it just beyond the outer orifice. The catheter was then passed quite easily. Free hæmorrhage followed its withdrawal, which I can only explain by supposing that the unavoidable force, necessary to stretch the penis, had ruptured some portion of its tissue. Yet nothing like violent extension was used; and the organ retreated inwards as soon as my fingers released their hold of it. How

long it had been thus buried I could not discover; for the mental condition of the patient prevented my learning anything from himself, and his friends knew nothing of the matter. The secretion peculiar to the glans was, however, very abundant. The man had been married thirty years or more, and, I believe, had always been childless.

It seems probable that the penis had become atrophied by the pressure of a double truss, which had been worn many years; and which had led to results quite unique in my experience.

I feel satisfied that if I had seen the organs superficially, without being obliged to look for the urethra, I should have regarded the case as one of doubtful sex. I am, &c.

Collingham, Newark, October 17. E. G. Wake, M.D.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON

Friday, October 14.

Mr. Paget, President, in the Chair.

There was no introductory address at the opening of this, the fourth session of the Society.

Mr. Spencer Watson read the "Reports of Four Cases of Parenchymatous Keratitis, associated with Acute Rheumatism." The patients were young adults, all under nineteen years of age. Both corneæ were affected, and the symptoms and appearances were not distinguishable from those of parenchymatous keratitis due to inherited syphilis. Out of a series of cases, extending over the last ten years, Mr. Watson had only observed acute rheumatism in association with parenchymatous keratitis in these four; but he suggested that in some others of the series this complication may have itself cut short the observations, by preventing the attendance of the patients at the Ophthalmic Hospital. From these cases it was conjectured that the interstitial keratitis of inherited syphilis may be allied to rheumatic inflammation, and may possibly yield to treatment such as is beneficial in the latter disease. Two of the patients, whose cases were related, were exhibited to the Society. In one the attack of keratitis had occurred eight years ago. It was found in this case that the young woman had become myopic since, and most probably in consequence of the attack.

Mr. Brudenell Carter asked if Mr. Watson had come to any conclusion as to the cause of the myopia. Was it from change of the cornea, or was it elongation, the result of inflammation of the deep-seated structures of the eye—what Jacob, for want of a better name, used to call "eyeballitis"?

Mr. Croft said some time ago an elderly man came to him suffering from parenchymatous keratitis. He was baffled in his treatment till he found the patient suffered from rheumatic gout, when he gave him iodide of potassium, and he got well. A few days ago a child, aged 7, was brought to him, suffering from the same complaint. The patient did well, but was immediately attacked with rheumatism.

Dr. Greenhow related the case of one who had suffered twice from this affection, which he had no doubt arose from constitutional gout. Other ailments had arisen from the same cause, but it had never manifested itself in any outbreak of true gout.

Mr. Watson had not made up his mind as to the cause of the myopia.

Dr. John Harley read a paper on "Injury to the Liver resulting in Abscess; rupture on the 14th day, diffuse peritonitis; formation of a second abscess opening into the colon on the twenty-fifth day; interrupted discharge of pus by the large intestine until the 112th day; and complete recovery." The patient, aged 69, was, by the fall of his horse, thrown forwards upon the brass turrets of his horse's pad, thus bruising the epigastric region. An inflammatory tumour, exquisitely painful, formed just above and to the right of the umbilicus. On moving in bed this suddenly disappeared, followed by collapse, and subsequently general peritonitis. In a few days the peritonitis became circumscribed, and the pain and swelling limited to the left side of the umbilical region, where there was evidence of formation of a second abscess. This also suddenly disappeared, with dangerous collapse and the evacuation of pus by the rectum. Marked colic symptoms, showing lesion of the bowel, preceded this second rupture. From time to time there was retention of the purulent discharge, and hectic, but ultimately a free passage was maintained, the appetite returned, and the patient made so complete a recovery that, at the end of seven months from the time of the accident, he was able to ride and follow his professional work, and he has since (for the last eighteen months) enjoyed perfect health. The author considered that the left lobe of the liver was bruised or lacerated by the accident; that an abscess formed, which pointed partly towards the right hypochondrium and partly within the small omental sac behind the stomach; that rupture occurred in the latter situation, the pus escaping into the small omental sac, and then, finding its way through the upper layer of the transverse meso-colon, passed further downwards between its layers, forming a second abscess by the side of the descending colon. This, in its turn, caused inflammation and rupture of the contiguous wall of the large intestine, and thus the pus was liberated and carried out of the body. Hectic and jaundice attended the retention of the discharge.

Dr. Ogle read a case of Tetanus. The patient, a healthy boy, got a bruise on the thumb. Three days afterwards he complained of stiff neck, and vomited, and shortly afterwards became affected by opisthotonos. On the fifth day after the injury he was admitted into St. George's Hospital in a state of tetanus. He was put fully under the influence of belladonna; ice was constantly kept applied to the spine, and chloral was given at night to induce sleep. It was noticed that at no time did the sardonic smile exist, and never was there any trismus or (except on one day) difficulty in swallowing liquid food, such as wine, brandy, beef-tea, and beaten-up eggs. In this case the temperature and pulse were registered twice a day; and it was noticeable that almost throughout the patient's stay in the Hospital the temperature was higher in the evening than in the morning, on one day reaching 102·3°. About the fourteenth day after the injury the tetanic symptoms began to abate, and by degrees the belladonna and the chloral were discontinued, and also the application of ice to the spine. After about a month from the accident the patient left the Hospital quite well, and has so continued ever since. Dr. Ogle suggested that possibly the examination of numbers of cases of tetanus might show that the temperature always increased in the evening, and that this fact might have value in diagnosing true tetanus from certain cases of affections of the spinal cord and its membranes, certain cases of hysteria, and strychnia, and other poisoning. Dr. Ogle believed that the highest temperature arrived at in tetanus was recorded by Wunderlich, who described it as being 108° shortly before death, 112·55° at death, and 113.56 after death. He also alluded to a case of tetanus in which, after the attack, the patient was subject to great irregularity of the heart's action, with much discomfort and palpitation on exertion, as if the mechanism of the organ had been injured in some violent muscular effort.

Mr. Croft had lately treated a similar case, which got well. He was sceptical as to the influence of belladonna.

Dr. John Harley thought the irregularity of the heart might have arisen from the toxic effects of belladonna. It would weaken its action, so that emotion might produce excited action with irregularity.

In reply to Mr. Watson, Mr. Croft said he had used hydrate of chloral, and nothing else; its influence was decided. It was intermitted for twelve hours, and the patient got much worse. It kept him asleep. He was about twenty-one days under treatment.

Mr. Carter said that Dr. Richardson had related a case occurring in the practice of Dr. Foster, of Huntingdon, where nitrite of amyl had been successfully used.

Gopaul Chunder Roy had seen many cases of tetanus in Calcutta. The prognosis depended on the parts affected. If the power of swallowing is lost, they die; if not, however bad, they have a chance of recovery. Nourishment was most necessary. They used opium in the form of smoke, as, used in this fashion, it did not render the patient costive. In one case, belladonna was given; but, constitutional symptoms appearing, it had to be given up. He had seen division of the nerve do good.

Dr. Barclay recalled a curious experiment of Dr. Fuller's. He gave belladonna in very large quantities in chorea during childhood. He found that the healthy could not take so much as the diseased, but could take much more than adults.

Mr. Paget had seen a gentleman three months ago, and to him chloral was given in large doses; it comforted the patient, but did the disease no good. He died just the same. No one, he thought ever had six cases treated successfully by any one method. He recalled three successful cases. One, a boy, got well—he was kept quiet; another was a man who inhaled enormous quantities of oxygen. In two other cases, oxygen

was absolutely inert; a third took chloroform, and got well. Chloroform had been used with others who had died.

Dr. ANSTIE thought Calabar bean, as used by Dr. Eben Watson, had been successful in more than six instances.

Dr. BROADBENT had recently had a successful case. He thought feeding most important. In another case, non-traumatic, chloral was used, but the patient died.

Mr. CROFT had drenched one patient with Calabar bean; still he died. Purgatives he thought most important.

Dr. OGLE said he had given the belladonna to quiet the spinal nervous system.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, OCTOBER 15.

DR. DRUITT, President, in the Chair.

THE first meeting for the season was held at the Scottish Corporation Hall.

A specimen of Mr. John Gamgee's new antiseptic, Chloralum, was exhibited, and handed to Dr. Stevenson, who promised to report upon it.

Specimens were handed round of Whitehead's Soup Squares, and of Meat Preserved by Mr. Richard Jones's Process. It is pretty well known that the art of preserving meat in tins consists in heating them in a chloride of calcium bath, at a temperature of 250° for a prolonged period, and then closing the orifice by solder. Meat preserved in this way (as was exemplified by a tin of Australian beef handed round, for the sake of comparison) is moist, and surrounded with jelly which has been extracted from the meat with most of its juice, and the consistence of the fibre is destroyed; or, if the meat be somewhat tough, the fibre is reduced to the condition of rags—tasteless, and exhausted—which defy the teeth, and forms a mass on the tongue like tow, but cannot be got rid of. In the process before us, the steam is exhausted from each tin by a tube connected with a vacuum chamber; hence the meat is dried, its juices are left in their natural place amongst the muscular substance, and the whole process can be effected at a lower temperature and with less injury to the flavour and appearance of the meat. The specimens shown had the taste and appearance of very good palatable meat, not differing from ordinary well-done cold roast and boiled beef.

Mr. ROGERS introduced the subject of the Registration of Disease, which he enforced with great earnestness, but was reminded by Mr. Liddle that the Medical Officers of Health had been in the field before them.

Dr. DRUITT then read an address on the Sanitary Topics of the Day, which will be found in another column.

Dr. ROGERS believed that scarlet fever arose from animal decomposition, and he had had remarkable proofs of this under his own observation. That scarlet fever could be kept away, his twelve years' experience at the Strand Union convinced him. He never had a case of scarlet fever spread in the sick wards. If a woman, however, entered the receiving ward with a child that had the measles, eleven or twelve days afterwards measles ran through the whole of the nursery, which was fifty yards off. Isolating the case was not of the slightest use—the result was invariably the same; but with scarlet fever he never saw it go further than the receiving ward. It was therefore, he thought, more under control than any of the other preventible diseases. The only reason it spread so rapidly in some districts was that people did not take proper care to get rid of the excreta.

The CHAIRMAN: What did you do?

Dr. ROGERS: Our drains were of the best, and as soon as there were any smells in the wards, I punished the nurses by stopping their beer or other extras. The smells soon vanished.

Dr. LIDDLE said that by drafting persons into the country they could remove a certain number of the better class poor, and it might be supposed that the lowest class would then move into the houses vacated by them; that would not be the case. The more depraved persons were, the more would they hide from the public in places that could only be visited by the police or by the Medical officer. He thought the only way to deal with the question was for the Privy Council or the Board of Trade to appoint specially a number of inspectors, who should decide, according to certain rules and regulations, whether houses were fit for habitation or not; and if they were not, then the Government should take steps to pull them down.

Dr. GIBBON said in his district (Holborn) the great want of the public was houses. They could not get room. The result of the last speaker's action would be that the poor would have no houses at all; for he had made ample provision for pulling them down, but none for building them up again. Perhaps he thought the poor would be better off in the open air. The Chairman had dealt with the real question, and had suggested that the Government should take the houses from the landlords, pay a fair price for them, and make them fit for habitation. This seemed, however, to him a great step towards communism.

Dr. ALDIS was certain that scarlet fever must be caused in some way by animal decomposition. At Eastbourne it was ascertained that an outbreak there had originated in the old and badly-drained portion of the town.

Dr. TILLY described the apathy of the poor themselves, and their very great ignorance of sanitary matters. He had recently inspected forty or fifty houses, into which there was a constant admission of sewage gases.

Dr. STEVENSON had found sulphurous fumigation very effective, but there were considerable difficulties in the way of burning sulphur. The bisulphide of carbon was very volatile, and had to be used by careful hands, but was much more effective than solid sulphur.

Dr. ILIFFE said scarlet fever in his parish had not resulted from dirt or filth, or bad drainage.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday October 13, 1870:—

Dubois, Louis Victor, Mauritius.
Hardman, William, Blackpool.
Newington, Frank Enefer, Tenterden.

As an Assistant in Compounding and Dispensing Medicine:

Roberts, Joseph Elliott, Great Ormond-street.

The following gentleman also on the same day passed his First Professional Examination:—

Wright, Francis, St. Mary's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

EVANS, THOMAS WALTER, M.R.C.S. Eng., L.S.A. Lond.—Honorary Surgeon to the North Dispensary, Liverpool.

ILOTT, JAMES JOHN, M.R.C.S. (late House-Surgeon at the Eastern Dispensary).—Resident Surgeon to the Whitechapel Workhouse.

NORTON, G. EVERITT, M.R.C.S., L.S.A.—Chloroformist to the Middlesex Hospital, *vice* Osman Vincent, Esq., resigned.

YELO, Dr. HENRY J.—Provincial Medical Officer to H.M. Post-office at Sunderland.

BIRTHS.

AUSTIN.—On October 10, at Lingfield, Surrey, the wife of Sydney C. Austin, Surgeon, of a daughter.

BEST.—On October 8, at Aberdeen, the wife of A. Vans Best, M.D., F.R.C.S., late Surgeon Indian Army, of a son.

BROWN.—On October 14, at Beckenham, the wife of Charles Brown, M.B., of a daughter.

BUSZAAD.—On October 14, at 43, Abingdon-street, Northampton, the wife of Frank Buszard, M.D., of a daughter.

GREAVES.—On October 6, the wife of Charles A. Greaves, M.B., LL.B., of a daughter.

LEIGHTON.—On October 12, at 24, Gloucester-place, Hyde-park, the wife of E. T. Leighton, M.B., of a daughter.

MARRIAGES.

ALEXANDER—SPENCER.—On October 18, at St. Luke's, Westbourne-park, Scott D., only son of G. F. Alexander, Esq., of St. Helena, to Alice, elder daughter of Charles Spencer, M.R.C.S., Whitchurch, Bucks.

BALL—VAUGHAN.—On October 12, at Heaton Norris, Lancashire, John Augustus Ball, M.B., of Heaton Norris, only son of the late John Ball, Esq., of H.M. Customs, Jamaica, to Catherine Anne, eldest daughter of John Lingard Vaughan, Esq., of Eldon House, Heaton Norris.

BROADFOOT—BROADFOOT.—On September 1, at Murree, Punjaub, William Broadfoot, R.E., to Esther Sutherland, daughter of the late Alexander Broadfoot, M.D., Deputy-Inspector of Hospitals.

ELLIS—MARTIN.—On October 13, at St. Augustine's Church, Highbury New-park, William Henry Ellis, M.R.C.S.E., of Shipley, to Jane, second daughter of Henry Martin, Esq., of Sussex House, Highbury New-park.

GARRINGTON—DOWLE.—On August 24, at St. John's, Portsea, by Rev. J. Knapp, Arthur M. Garrington, M.D., to Clara, youngest daughter of the late Mr. Dowle, St. Leonards, Southsea.

HARPER—ANGERAUD.—On October 15, at St. Barnabas, Kensington, Henry Lewis Harper, M.D., to Julia, widow of the late W. J. P. Angeraud, Esq., of Kensington.

SMITH—HOPE—On October 19, at All Saint's, Knightsbridge, Dr. Heywood Smith, of Portugal-street, Grosvenor-square, son of Dr. Protheroe Smith, to Emily Anne Gertrude, third daughter of the late Lieutenant-Colonel the Honourable James Hope and Lady Mary Hope.

SMITH—REMFRY.—On October 11, at Kemvyn, Clement Madely Smith, M.D., of Babbicombe, Torquay, late of the 1st Punjaub Cavalry, youngest son of the Rev. J. Bainbridge Smith, D.D., of Horncastle, to Edith Charle, only daughter of Geo. F. Remfry, Esq., of Truro.

STEDMAN—TAYLOR.—On October 13, at the parish church, Hope, Derbyshire, Frederick Stedman, Surgeon, of Bradwell, to Adeline Robinson, eldest daughter of J. H. Taylor, Surgeon, of Hathersage and Bradwell.

DEATHS.

BROSTER, JANET RHIND, the beloved wife of John Broster, M.D., at 84, Marland-place, Southampton, on October 13, aged 34.

EDWARDS, EDWARD, Surgeon, Coalbrookdale, Salop, on October 17, aged 72.

WHEATLEY, FREDERICK WINDLE, M.D., of 20, Great Marlborough-street, London, and of Algiers, at Calverton Hall, Notts.

WHITMORE, KATE, the youngest and dearly-loved child of Dr. Whitmore, of 15, Wimpole-street, London, on October 14, aged 18 years.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRADFORD INFIRMARY AND DISPENSARY.—Additional Resident Medical Officer; must have both Medical and Surgical qualifications, and be more than 25 years of age. Applications and *copies* of testimonials to Mr. C. Woodcock, Secretary, Low Bridge, Bradford, on or before the 31st inst. Election on November 11.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the "Chairman of the Committee of Management," on or before October 31. Election on December 6.

BRISTOL ROYAL INFIRMARY.—Assistant House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 12.

CHARING-CROSS HOSPITAL.—Surgeon-Dentist; must be a Fellow or Member of the Royal College of Surgeons of England. Applications and testimonials to the Secretary on or before the 26th inst.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Dental Surgeon; must be a Licentiate in Dental Surgery of the Royal College of Surgeons of England. Applications and testimonials to the Honorary Secretary on or before November 8.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon; must be M.R.C.S. Lond., Edin., or Dublin. Applications and testimonials to the Secretary, at Derby, on or before November 5.

DURSLEY UNION.—Medical Officer for the Third District of this Union. Candidates must be duly qualified and registered. Applications and testimonials to Mr. G. Wenden, Clerk to the Guardians, Dursley, on or before October 26. Election the following day, at 12 o'clock.

EASTERN DISPENSARY, LEMAN-STREET, WHITECHAPEL, E.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 7.

GENERAL HOSPITAL, BIRMINGHAM.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials, under cover, to the House-Governor and Secretary, on or before October 27. Election on November 4.

HALIFAX INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications and testimonials to Mr. Jukes, House-Surgeon, Infirmary, Halifax, on or before the 25th inst.

MORPETH DISPENSARY.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

QUEEN ADELAIDE'S DISPENSARY, POLLARD-ROW, BETHNAL-GREEN.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Rev. T. Peckston, 260, Cambridge-road, E., on or before November 1.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior House-Surgeon. Applications and testimonials to the Secretary on or before the 26th inst.

ST. GEORGE, HANOVER-SQUARE, DISPENSARY, 50, MOUNT-STREET, GROSVENOR-SQUARE.—Physician-Accoucheur; must be a Member of the Royal College of Physicians of London. Applications and testimonials to the Honorary Secretary, on or before the 25th inst. Personal attendance will be required at 4.30 p.m. the same day.

SEAMEN'S HOSPITAL (LATE "DREADNOUGHT").—House-Physician and House-Surgeon. Applications and testimonials to the House-Governor and Secretary, Seamen's Hospital, Greenwich, of whom further information may be obtained.

WHITECHAPEL UNION.—Resident Workhouse Medical Officer. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Vallance, Union Offices, Charles-street, Whitechapel, on or before November 6.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Uckfield Union.—Dr. Henry Harland has resigned the Mayfield District; area 13,605; population 2688; salary £54 per annum.

APPOINTMENTS.

Blything Union.—Edward R. Blackett, L.R.C.S.I., L.A.C., M.D., to the Eighth District.

Cheltenham Union.—Henry Edward Jessop, L.R.C.P. Edin., M.R.C.S.E., to the Fourth District.

Hastings Union.—Frederick Cumming, L.F.P. and S. Glas., M.D. Edin., to the Third District.

Hollingbourn Union.—Horace V. Sandford, L.R.C.P. Lond., L.F.P. and S. Glas., M.D., to the Fourth District.

Loughborough Union.—Wm. G. Palmer, jun., M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., to the Loughborough District and the Workhouse.

Sleaford Union.—Wm. Bower, M.R.C.S. Eng., L.S.A., to the Blankney District.

HAVING held the office of Assistant-Physician to the London Hospital seven years, Dr. Hughlings-Jackson receives the title of Physician—without any alteration of duties, however.

THE DUKE OF DEVONSHIRE, Chancellor of the University of Cambridge, has offered to provide buildings and apparatus for experimental physics at a cost of £6300.

MR. M. R. PRYOR has been elected to a Fellowship for Natural Science in Trinity College, Cambridge. The examination was open to all the University.

A SPECIAL general meeting of the Royal Medical and Chirurgical Society will be held on Tuesday, October 25, at 8·30 p.m., to receive a report from the Council on the present position of the scheme for the formation of the Royal Society of Medicine, and to take such steps thereon as may be deemed advisable.

AN ordinary general meeting of the Society for the Relief of Widows and Orphans of Medical Men will be held at 53, Berners-street, W., on Wednesday, October 26, at 8 o'clock precisely, to transact the usual business of such meetings. The Court of Directors recommend the election of George Cooper, Esq., of Brentford, as Vice-President, in the place of J. Bacot, Esq., deceased.

UNIVERSITY INTELLIGENCE.—Dr. Rolleston, the Linacre Professor of Anatomy and Physiology in the University of Oxford, commenced his course of lectures on Tuesday, the 18th inst. Mr. Lawson, the Professor of Botany, commenced his course of lectures at the Herbarium, on the "Minute Anatomy of Plants," yesterday (Friday), the 21st inst. Dr. Acland, the Regius Professor of Medicine in the University of Oxford, will lecture at the Radcliffe Infirmary on Clinical Medicine, on Tuesdays and Saturdays, commencing on Saturday next, the 29th inst. Examinations for the Degree of Bachelor of Medicine will be held early in December. The election to a Radcliffe Travelling Fellowship will take place early in next term. Dr. Lee's Reader in Anatomy (Mr. J. B. Thompson) commenced his course of lectures on Osteology in the Lee's Reader's Room on Wednesday last; he will also deliver a course of lectures on Comparative Anatomy in the same place.

ROYAL COLLEGE OF SURGEONS.—The following is an abstract of the unconfirmed minutes of the last meeting of the Council of the College, on the 13th instant:—The Secretary was directed to inform Mr. Edwin Lowe of his removal from being a Member, owing to his having been convicted of felony, and to call upon him to return his diploma, as required by the by-laws, and, in compliance with the requirements of the Medical Act, to inform Dr. Hawkins of the fact.—A letter was read from Mr. E. Deas-Thomson, thanking the Council for the recognition of the Sydney Infirmary and Medical School; whereupon a protest was read from Fellows and Members residing in Sydney against the recognition of such institution. The document was referred to the Court of Examiners for consideration.—A memorial was read from Mr. Thomas Monk, late mayor of Preston, removed in 1858 from being a Member, in consequence of his having been convicted of forgery, and requesting to be restored to the Membership of the College. An answer was ordered to be sent, stating that the Council had not the power to entertain the request.—Letters were read from Sir William Fergusson, Bart., the President of the College, and Mr. Quain resigning their appointments as examiners, and from Mr. Skey declining again to be put in nomination for the office of examiner; a letter from Mr. Curling was also read, declining, for reasons stated by him, at present to be put in nomination for the office of member of the Court of Examiners.—The following Fellows of the College were nominated for the office of examiner:—Messrs. G. V. Ellis and J. Marshall, of University College; Messrs. W. S. Savory, G. W. Callender, and H. Power, of St. Bartholomew's Hospital; Mr. Timothy Holmes, of St. George's Hospital; and Mr. J. Hutchinson, of the London Hospital. The President explained that, in accordance with the charter and by-laws, the choice of the Council would not be restricted to the Fellows nominated. A special meeting of the Council, it is stated, is summoned for this purpose on Thursday next.—A letter from the Rev. W. H. Leat, soliciting contributions of books or specimens for the Soul University, Texas, was referred to the Library and Museum Committees.

FRESHMEN AT CAMBRIDGE.—The new entries this session at the University of Cambridge are as follows:—

Trinity College	152	Pembroke College	15
St. John's ,,	125	St. Catharine's ,,	14
Jesus ,,	48	Magdalen ,,	13
Gonville & Caius College	44	Queen's ,,	13
Corpus Christi ,,	31	St. Peter's ,,	11
Trinity Hall ,,	29	King's ,,	9
Clare ,,	27	Downing ,,	5
Emmanuel ,,	27		
Christ's ,,	20	Total	583

COLLEGIATE EXAMINATIONS.—Notice has been given that the next primary and pass examinations for the diploma of Member of the Royal College of Surgeons will commence on Saturday, November 5, and Friday, November 11; and that the next first and second Professional examinations for the *Fellowship* will commence on Saturday, November 19, and on Wednesday, November 23. It is stated that the number of candidates for this higher distinction is greatly on the increase. Notice has also been given that the next Preliminary, or examination in Arts, etc., for the diplomas of Fellow and Member of the College will be held on Tuesday, Wednesday, and Thursday, December 20, 21, and 22. On the last occasion of this examination, it is stated that more than half the candidates were rejected, and nearly as many by the Society of Apothecaries.

MEDICAL STUDENTS.—The registration of gentlemen pursuing their Professional studies at the eleven recognised metropolitan Hospitals having been completed, and the "return" duly made to Mr. Charles Hawkins, F.R.C.S., the Government Inspector of Metropolitan Schools of Anatomy, it is interesting to notice that, notwithstanding the unprecedented large number of rejections during the present year in the Arts examinations at the Royal College of Surgeons and at the Society of Apothecaries, there is an increase of 18 in the new entries over the number registered last October session, or a gross increase of 57 in the total number of gentlemen now "walking our Hospitals." The following represents the number at each of the Hospitals; but there are of course a great number of students pursuing their Hospital studies for the Fellowship of the College of Surgeons at each of the institutions who are not required to register:—

1. Guy's Hospital	302,	including	102	freshmen
2. St. Bartholomew's Hospital	251,	,,	75	,,
3. University College ,,	208,	,,	72	,,
4. King's College ,,	110,	,,	36	,,
5. St. Thomas's ,,	105,	,,	48	,,
6. London ,,	84,	,,	23	,,
7. St. George's ,,	77,	,,	23	,,
8. St. Mary's ,,	53,	,,	15	,,
9. Middlesex ,,	45,	,,	19	,,
10. Charing-cross ,,	40,	,,	9	,,
11. Westminster ,,	24,	,,	11	,,
	1299		433	

But for the reasons already stated, there is no doubt the number of new entries would have been considerable. The following analysis of registrations during the present decade will doubtless prove interesting to our readers:—

In 1860 there were	1228	students	at our 11	recognised Hospitals
,, 1861 ,,	1116	,,	,,	,,
,, 1862 ,,	1045	,,	,,	,,
,, 1863(a) ,,	1020	,,	,,	,,
,, 1864 ,,	995	,,	,,	,,
,, 1865 ,,	1013	,,	,,	,,
,, 1866 ,,	1027	,,	,,	,,
,, 1867 ,,	1125	,,	,,	,,
,, 1868 ,,	1194	,,	,,	,,
,, 1869 ,,	1241	,,	,,	,,
,, 1870 ,,	1298	,,	,,	,,

The returns from the provincial Hospitals and schools have not yet been completed, but it is stated they are satisfactory.

A MEETING held at the Town Hall, Liverpool, on Friday, the 14th inst., under the presidency of the mayor, to consider the desirability of establishing a Hospital Sunday was brought to a painful and premature close by the sudden death of the Rev. T. C. Cowan, incumbent of St. Chrysostom's, Everton. The reverend gentleman, while in the act of addressing the meeting, fell backwards, and died almost instantly. He had been an invalid for a long time, and was compelled to spend a great part of last winter out of England.

(a) In this year (1863) the Grosvenor-place School of Medicine was closed.

FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.—At a meeting of this Corporation, held on Monday, the 3rd inst., the following office-bearers were elected for the ensuing year, viz.:—J. G. Flemming, M.D., President; William Weir, M.D., Visitor; John Coats, M.D., Treasurer; J. D. Maclaren, M.D., Honorary Librarian; James Dunlop, M.D., Vaccinator. *Councillors:* The President, *ex officio*; The Visitor, *ex officio*; G. Buchanan, M.D. (in terms of Cap. II., Sec. 6 of Regulations); Eben. Watson, M.D.; James Stewart, M.D.; Robert Scott Orr, M.D.; H. R. Howatt, M.D. *Board of Examiners:* R. D. Tannahill, M.D., Midwifery and Medical Jurisprudence; J. B. Cowan, M.D., Medicine and Materia Medica; Andrew Fergus, M.D., Chemistry; George Buchanan, M.D., Anatomy and Physiology; Robert Scott Orr, M.D., Medicine and Materia Medica; William Leishman, M.D., Midwifery and Medical Jurisprudence; William Lyon, M.D., Surgery and Surgical Anatomy; Eben. Watson, M.D., Anatomy and Physiology; James Morton, M.D., Surgery and Surgical Anatomy; Robert Perry, M.D., Chemistry. *Clinical Examiners in Medicine:* The Physicians of the Royal Infirmary. *Clinical Examiners in Surgery:* The Surgeons of the Royal Infirmary. *Examiners in Arts:* John Coats, M.D.; James Stevens, M.D. *Inspectors of Drugs:* William Eadie, M.D.; James Morton, M.D. Lawrence Hill, LL.D., and William Henry Hill, Clerks; Alexander Duncan, B.A., Librarian and Secretary; John M'Farlane, Officer.

MR. GOSCHEN AND THE REGISTRATION OF DISEASE.—A very large deputation of members of the British Medical Association and Poor-law Medical Officers' Association waited upon Mr. Goschen, on Monday, at the Poor-law Board, to press upon his consideration various important questions connected with the public health and the administration of Poor-law Medical relief. Dr. Lyon Playfair, M.P., and Mr. Cawley, M.P., introduced the deputation, and among those present were Dr. Rumsey (of Cheltenham), Dr. Sibson, Dr. Ransome (of Manchester), Dr. Stewart, Dr. Carr (of Blackheath), Mr. Ernest Hart, Dr. Anstie, Dr. Henry, Dr. Harley, and Dr. Ogle, as representing the first named association; and Dr. Rogers, Dr. Fowler, Dr. Gibbon, Dr. Aldis, Dr. Manley, Dr. Day Goss, and Dr. Morgan being among the representatives of the other. Dr. Rumsey, in addressing the President, stated that it was at first proposed only to enter upon the subject of the registration of disease, the carrying out of which would undoubtedly be of great public benefit, but since the subject had been mooted it had been thought desirable to discuss it in connexion with Poor-law Medical relief, and the Medical relief afforded at the public Hospitals and dispensaries at the public cost. The registration of disease must be a part of any sanitary legislation, and it would undoubtedly be very beneficial to science, and thus to humanity. The other points urged in the resolutions related to details. Dr. Sibson drew attention to the great advantages and beneficial results of registering disease in the army, navy, and the Indian service; and he dwelt upon the importance to the public generally of having epidemics and diseases traced to the spots where they originated. He held that the proposed system would diminish disease, and so lessen pauperism. Dr. Ransome, of Manchester, pointed out that such registers of disease had been voluntarily made in some districts, and the returns, which caused very little trouble, had been found exceedingly valuable. Mr. Goschen said the arguments in favour of the value of registration were such that nothing could be said against it, and the question was as to the cost. He desired to obtain from the gentlemen present an idea of what they thought would be the fair value of the pay to Medical officers under the Board for the returns. One or two gentlemen spoke on this point, and Mr. Goschen remarked that there was a difference of about £50,000 in the two estimates given. In answer to the President, Dr. W. Farr stated that we were generally in advance of other countries in regard to registrations, but diseases were registered in foreign Hospitals when a case terminated fatally, and no other country had an organisation like that of Poor-law Medical officers. Dr. Rogers addressed the President on the existing grievances of Poor-law Medical officers, especially with regard to the differences in pay and the varying extent of population. Mr. Goschen demurred to some of the figures adduced by the speaker, and Dr. Stallard then spoke upon the necessity of having a full reform of the Poor-law before any good would come, either in the lessening of the abuses existing in Medical relief or of pauperism. Mr. Goschen appealed to other members of the deputation if they agreed with the views of the last two speakers, that the registration of diseases would be useless without a great change in the system; and reminding them of what the Irish system mainly consisted—namely, the free

issue of dispensary orders—he asked them if they were prepared to advocate the adoption of that system in England. Dr. Sibson and several other gentlemen answered emphatically in the negative to both propositions. Dr. Anstie, as a Physician of large Hospital and general practice, gave his unqualified assent to the advantage which would arise from the immediate adoption of the registration of diseases, and advocated the combination of the out-door patient system of Hospitals with the registration made by the Poor-law officers. He declared that the Physicians were much troubled at Hospitals by persons who came with fancy sickness—for a sort of "medicine jollification." Mr. Goschen remarked that if Hospitals were in any way connected with Government, it was to be feared the subscriptions would fall off; and then, after Mr. Cawley, M.P., and Dr. Lyon Playfair had added a few words, he said the question resolved itself into one of cost, and it must be submitted to his colleagues; but he thought it would be undesirable to enter upon the question until the report on the Royal Sanitary commission had been considered by the Government. He thanked the deputation for the information they had afforded him.

A SUBSCRIPTION has been entered upon in order to present Dr. Dudfield with a testimonial on his resigning the office of Honorary Secretary to the Poor-law Medical Officers' Association, which office he has discharged for four years with the greatest zeal, tact, and ability, and thus contributed in no small degree to the success of the Association. Mr. Benson Baker, 42, Grove-road, Regent's-park, N.W., has consented to be Treasurer to the "Dudfield Testimonial Committee," and will receive subscriptions.

AN INTERNE WANTED.—In the *Lyon Médical* we find an advertisement couched in the following rather singular terms:—"The post of interne being vacant at the public Asylum of Auch (Gers), a Medical student is wanted, 21 years of age, and having at least ten inscriptions. A Doctor of Medicine is also eligible for the post. The interne is lodged, fed, warmed, lighted, and washed, and receives a salary besides of 800 francs per annum."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** A book-packet cover with halfpenny impressed stamp and three additional penny stamps, has been received at our office without contents. It appears to bear the post mark *Birmingham*.

The obituary of the late Mr. Lacy, of Poole, next week.

T. M.—You may apply to Mr. Colam, Secretary of the Society for the Prevention of Cruelty to Animals, at the Society's house in Jermyn-street, W.

Provincial.—At the Leeds School, the new entries are 28; total attending the School, 70.

CONTAGIOUS DISEASES ACTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Permit me to thank you for your courteous insertion of my former letters—an indulgence for which I am the more grateful since I have too much reason to know that all arguments emanating from scientific opponents of these measures are, as a rule, deliberately suppressed. I should not ask more now from your sense of justice had not the correspondent who apologises for these measures stated that he, for one, did not believe my statement as to the utter inefficiency of these acts in repressing disease. Your correspondent asks for proof of my assertions, which I have now great pleasure in affording.

On referring to the Parliamentary Blue-books, I find that in Devonport and Plymouth there were, in the year 1860, 440 cases of venereal disease per 1000 of mean strength. In the year 1864, there were 289—a fall of 151 cases, without legislation. The first Act came into force early in 1865, and the satisfactory decline previously noticed is checked; and, after three years (1865, 1866, and 1867) of higher figures, in 1868 the number of cases per 1000 of mean strength was brought no lower than 280—a fall of nine cases only in the four years.

In Chatham and Sheerness, during the year 1860, there were 351 cases per 1000 of mean strength. In 1865 the admissions were 292 per 1000—a reduction, without any Act, of 59 cases per 1000. Now, Sheerness is constantly cited as affording conclusive evidence of the success of the system; yet for both these stations, in face of a reduction of 59 per 1000, without any Act, we find that, after the introduction of the first Act in 1865, and of the second measure of November 6, 1866, a reduction of 17 only for both stations was effected in three years. At Shorncliffe, during the year 1860, there were 327 cases per 1000 of mean strength. In the year 1867, there were 215 per 1000—a diminution, without any Act, of 112 cases. The Act came into operation in this place in July, 1868, and since then, so far from a diminution, we find the extraordinary increase of 82 per 1000 has taken place—the number of cases having risen in 1868 to 297. At Woolwich, during the year 1860, there were 473 cases per 1000 of mean strength. In 1865 the number was reduced to 204 per 1000—a fall, without any interference, of 269. The Act came into operation in November, 1866, and since its introduction the diminution has been only 13 per 1000, the admissions during the year 1868 being 191. At Aldershot, during the year 1860, the cases were 339 per 1000 of mean strength; in 1866 they were 233—a fall, without any Act, of 106. The Act came into force at Aldershot on April 12, 1867, and since then the proportion has increased by 4, the admissions in 1868 being 237. At Portsmouth, in 1860, the number of cases were 503 per 1000. In 1865 the number was reduced to 329—a fall, without any Act, of 174. In 1868 the admissions to Hospital were 348—showing an increase of 19 cases per 1000, in face of a previous reduction of 174. Thus, adding together the numbers expressive of the diminution of disease at each of these six stations from 1860 to the application of the first Act in each case, we find a total diminution of 871 cases per 6000, without legislation; while, if we perform a similar operation for them after the application of the Acts, we find an aggregate increase of 66 per 6000—in short, a slight diminution at three stations, a large increase at one, and a decided increase at two. As the Acts were applied at different dates, the greatness of the contrast is not fully seen by adding the cases at each station together for each year, as, after 1865, the increase at the stations brought under the Act tends to balance the diminution at those still uninterfered with; yet the inefficiency of the Acts is clearly seen by the process. I append the total number of cases at the six stations name above for each year from 1860 to 1868; the proportion is per 6000.

Year.	Cases per 6000.	Total decrease.
1860	2433	—
1861	2368	65
1862	2040	393
1863	1865	568
1864	1729	704
1865	1720	713
1866	1673	760
1867	1698	735
1868	1628	805

Nothing can more clearly show the hasclessness of the vaunted utility of the Acts. In the four years from 1860 to 1864, a decrease of 704 cases per 6 00 had taken place, without any Acts. In the four years from 1864 to 1868, the diminution was only 101 per 6000, although every means had been employed to obtain the most favourable figures; and although the increase at the stations under the Acts was masked for several years by the diminution at those which were the longest free from them, the same result is brought out in whatever way the statistics of disease at these stations are regarded. If we take the two stations which have been under the system longest, where the Act of 1864 was applied immediately after it became law, we see the effect of the *régime* in a striking manner. Thus, at Devonport and Portsmouth combined, the number of cases per 2000 was, in 1860, 943; in 1864 it was 626—a diminution of 317, without any Act. In 1868 it was 628—an increase of 2, after four years' trial of the system under the most favourable conditions. In the same way, if we take the three stations last brought under the Acts, Shorncliffe, Woolwich, and Aldershot, the number at these three stations combined, in 1860, was 1139 per 3000; in 1866 it was 671—a diminution of 468, without any Acts; in 1868 it was 725—an increase of 54 in two years, under the regulation system. These figures are taken from the War-office statistics, collected by Dr. Balfour, the head of the statistical branch of the Army Medical Department; they are official, the latest published; and the evidence they convey—the only reliable evidence available—is not to be rebutted by any *ad captandum vulgus* statements, such as are occasionally put forwards by the promoters of the Contagious Diseases Acts. Similar testimony as to inefficiency is afforded by the returns from Bombay, Bengal, and other stations, where the English system has been essayed; while in Algeria, as recent returns have demonstrated, venereal diseases among the French soldiers have actually doubled under the regulation system. Contrast this with the returns of venereal diseases among the French troops quartered in Rome, where the system of inspecting women has never been introduced. Why, Sir, it is a fact that, without a Contagious Diseases Act, venereal disease among the men has gone on diminishing, and is actually less at this station than at any other. I am told that the statistics for last year are more favourable to the Acts. I can, however, only speak of such evidence as is already published, and therefore available. I am quite sure, moreover, that such general statements will not admit of scrutiny. Mr. Duncan McLaren's (M.P. for Edinburgh) able *exposé* of the police report which has been recently circulated by the promoters of the measure, and of which he speaks in the following terms, is sufficient proof of this:—"Although I have had somewhat of a ravenous appetite for Blue-books and other statistical documents, and have, in various ways, dissected not a few of them, I feel bound to say this is the most unfair and untruthful public document which it has ever been my lot to meet with." He further remarks that it professes to show a decrease in the number of prostitutes from 7766 to 3016, whereas there has been an increase of 779 in the subjected towns. As to the deterioration in race, Mr. Jonathan Hutchinson tells us that inherited syphilis does not affect 1 in 5000 of our population; he shows, moreover, that there is less inherited disease in this country than in other countries, where such measures have been in force a century.

I am, &c.

Nottingham, Oct. 18. THOMAS WORTH, M.R.C.S.L. and L.S.A.

A Young Chemist can obtain all the information he requires by application to the Secretary of the Pharmaceutical Society, 17, Bloomsbury-square.

Malvern.—The bill said to have been sent to "a lady in Leicestershire for Medical attendance" and medicines is most probably a silly invention.

Scalpel (Liverpool), M.D., An Old Fellow of the Medical Society of London, and various other correspondents, are thanked for their communications. In the article which will appear in the *Medical Times and Gazette* next week, "On the Results of the Trial of Cooper *v.* Wakley," many circumstances alluded to in the letters we have received will be fully discussed.

JOHN HUNTER ON HYDROCELE.

The following is the paper on this subject to which we alluded in a former number of the *Medical Times and Gazette*, and is printed from the original manuscript in the handwriting of Hunter, and now in the possession of Mr. T. M. Stone, of the Royal College of Surgeons. The paper is addressed to Count Bruhl, of Dover-street, the Hanoverian Minister to our Court, and is prefaced with the following lines:—

"Mr. Hunter's compliments to Count Bruhl. He has drawn out a short sketch of the different cures for the hydrocele, which he hopes will be perfectly understood by the Surgeons in Germany.

"Leicester-square, Saturday evening."

"An Hydrocele is perhaps one of the most innocent diseases that can afflict a Human body; or more properly speaking, is an effect of one of the most innocent causes; It is productive of no evil; it can only be an inconvenience, and that inconvenience can only arise from size.

"There is a relief call'd the paliative cure which cannot be call'd a cure, only a temporary relief, as it commonly recurrs again; this is simply letting the water out; for the sack which contains the water is the same as before.

"To perform a cure, would be to hinder the accumulation of the water, but as we are not in possession of such power, we are obliged to have recourse to the next best method, which is an obliteration of the sack which contained the water. To effect this, more methods probably have been proposed and put into practice, than in any other disease in Surgery. There are two ways in which this effect may be produced; one, and the most simple, is to produce such inflammation on the sack as will make the sides of the sack adhere to each other, and if this adhesion is complete, then no Hydrocele can ever take place in this part afterwards. Another mode is to expose the sack in such manner, as to bring on suppuration; this is a more severe method than the above, because the inflammation must exceed the adhering stage, and it is more tedious because suppuration must go on till the whole sack is consolidated by granulation.

"To produce the first method, it was proposed by the first Monro of Edinburgh, to make a puncture with a Trochar into the bag of water and let it out, then to inject by the same Trochar some wine to excite inflammation, and to let this wine out, then inflammation commences, and the sides of the sack adheres; If it was certain that this effect would always be produced, and that every part of the surface of the sack and Testicle would adhere, then no more is necessary, but I am told, that these adhesions are not always perfect, which subjects the person to a relaps, and which has taken place, and it is probable that this was the reason of its being laid asside. Mr. Earl has again taken it up, and from his account, it would appear to succeed as well as we could wish, but I have been informed, that it does not always succeed; and that there are cases, where from experience it does not, which I can easily conceive.

"To produce adhesions of the sack by means of suppuration and granulation; four methods have been recommended; one, the most simple in the operation, was to make a small opening and let out the water, then into this opening put a Tent, or a little lint; this excited inflammation over the whole sack, and the whole sack suppurated, and the whole was obliterated. To produce the same effect, one recommended a caustic to be apply'd, about the size of a sixpence, and either to cut through the eschar, or let it slough off. Another method was to pass through the sack a Seaton, which was an old practice revived by Mr. Pott; and the fourth was to open the sack from one end to the other, which is the most severe operation of the whole.

"Every one of these modes produced the same effect; and the same quantity of inflammation suppuration &c. succeeded; the only difference was in the operation itself; but none of these four methods were at all times perfect, the disease recurred again in some of all of them. An accident hapen'd to a patient of mine at St Georges Hospital, which gave me an uportunity of finding out the cause of those relaps's, which was, that the sack had not wholy inflamed and supurated; therefore to effect an universal suppuration over the whole surface of the sack, I have taken care that no two parts of the sack shall come into contact till it has suppurated; and to effect this, I put into the opening made into the sack (which is about two inchs long) some Flower, which I spred all over the inside with my Finger, and then a little lint on the cut edges of the wound, and a Poultic over the whole, then alow suppuration to take place, and the whole heals. If this Flower is well introduced through the whole sack, every part must suppurate, and every part must unite, which makes the complete cure.

"In whatever way the cure is effected, there is no danger."

N. B. is in error with respect to the facts of the case. If he will refer to "Liston's Operative Surgery," he will find that the report is copied *verbatim* from the account published by ourselves at the time. It was the second, and not the first, case which terminated fatally at the expiration of twenty-eight hours.

Fine Writing.—The following extraordinary specimen of English composition appeared last week in a journal with a Medical title as an answer to a correspondent:—

"Salas.—The journal in question took up the subject after the *Medical Press*. It has often imitated us in this way. The boast to you was of about the same value as many of the editorial paragraphs that adorn our 'tradesmanlike contemporary,' but we do not care to notice it, and, as a rule, have no desire to trouble ourselves about the conduct of other journals. We have lately refused several articles exposing our contemporaries or reflecting on their staff. We do not know if the gentleman who has offended you still writes for the paper. The writer of the leaders in the *Medical Press* which you so admired has done nothing for us since, but he will soon rejoin our staff."

Case of Trance.

By Dr. A. Weber, Otago, New Zealand.

(From the *Bruce Herald*, July 20.)

Wilhelmina Ross, 20 years of age, the daughter of healthy parents, both alive, brothers and sisters also healthy, has suffered since she was about 5 years of age frequently from neuralgia on the left side of the head and face combined with spasms of the facial muscles (as the parents expressed themselves—"they saw the pain working in the face"). About three years ago she was first attacked by convulsion fits, which seem, according to description, to have been of an epileptic character, after which she lay for nine hours in a state of catalepsy—that is, a state resembling profound sleep, only that the breathing was scarcely at all perceptible—out of which she awoke suddenly, as they said, smiling. The same attacks returned twice more at different intervals, always commencing with convulsion fits, and ending in a state of catalepsy, which lasted, the second time, twenty-four hours, and the third time, in April, 1869, for seven or eight days. It is stated that the girl after awaking on the first two occasions, knew all that had been passing about her, and said that she was afraid of being buried alive. During the third, however, consciousness seems to have been far more disturbed. The convulsions each time increased in strength, so that at times four men could with difficulty hold her, and her shrieks were heard far away. It was also observed that within the last twelve months she lost—partially—the movement of the left arm, and latterly the movement of the tongue, as shown in difficulty of speaking and taking of food. The present attack commenced like those before, with violent convulsion fits, and was succeeded by a state of catalepsy, which now lasts above six weeks. The girl has during that time, only at intervals, taken a very little water, beef-tea, of chicken soup; brandy and wine were also tried, but seemed not to agree with her. The food was principally supplied in the evening, when the jaw—during the day firmly closed—used to relax. It had to be carried over the half-paralysed tongue, when, on reaching the fauces, deglutition ensued. For the last three days previous to my seeing her, she had a convulsion fit every evening, and had taken some little fluid food every day. To-day, July 7, she had a fit about 11 o'clock a.m.

Present State.—I saw the girl about 1 o'clock to-day, and remained with her for above three hours, during which time I had opportunity to observe her as well in a state of rest as in a succession of fits, which, however, were not by far so strong as they used to be. I shall describe her first in the state of rest. The patient is lying on her back, arms and legs extended, hands half open; the skin is dry, cold, and pale, except a slight tinge of red on the cheeks; emaciation, though great, is not so great as one should expect; muscles flabby; hair and eyes brown; eyes closed; eyeballs turned upwards—the left outwards, the right inwards; the pupils are of middle size, slightly undulating against sudden light; the mouth firmly shut, and a little drawn to the right side; the nostrils distended, the left more so than the right, and slightly moving with breathing; the features are regular, their expression placid; the head is of moderate size and well formed, the forehead of ordinary expansion, not prominent; pulse irregular, weak, and compressible, but very distinct, about 88 in the minute; the lungs apparently healthy, respiration distinctly visible and audible by stethoscope, respiration about 20 in the minute, very short, the breath feels cold; the sounds of the heart and large arteries are easily heard; the first sounds are dull, the second sound of the right heart increased and metallic; the abdominal muscles feel contracted; the tympanitic sound of stomach and intestines dull and short. A limb, when lifted up or bent, sinks back, according to the law of gravity. There is apparently no feeling nor consciousness, or other function of the senses. No passage of the bowels for the last three weeks. As already stated, the patient had a fit, about 1 o'clock on the day that I saw her, and not long after my arrival she had five or six in succession; none of them, however, lasted more than a few minutes. They came on quick, without much warning; the face assumed a frowning expression; the forehead gets wrinkled both horizontally and vertically; the eyelids open and the eyeballs roll from side to side; twitching of the nostrils and angles of the mouth; slight froth appears between the firmly compressed lips; at the same time the hands are clenched, the arms and legs begin to beat spasmodically, with quickly increasing violence, the head is thrown backwards, and the spine arched upwards. The breathing during this time is very short and labouring, when suddenly, after one or two loud screams (I should rather call them spasmodic expirations, producing a sound), the whole body is thrown in a state of tetanus, the limbs feeling hard and stiff like wood. This state of tetanus lasts for about a couple of minutes, when just as suddenly, with a deep-drawn sigh, all the muscles relax again, the jaw alone remaining firmly closed, and the eyes for some time rolling. I saw five or six of these attacks in quick succession, but am inclined to think that manipulating the girl had something to do with bringing them on. I may mention that after these fits the face got for some time quite suffused with red, the skin warm all over, except on the extremities, and the pulse rose to about 98, but quickly sunk again. Reminding again that I have seen the patient only once, and in a state rather different from what others saw her in, I venture to make a few remarks on the nature of the case. Taking into consideration the previous history—viz., that the girl suffered since early youth, frequently from headaches, neuralgia of the face, together with spasms of the facial muscles; that these gradually increased in severity; that at the age of puberty epileptic convulsions supervened, followed by a state of apparent insensibility; that these, on each recurrence, increased in strength and duration; that lately a partial paralysis of the left side (the same as was affected by neuralgia) showed itself, there can be little doubt that we have before us a material disease of the brain, of slow progressive development, the seat of which may be either the substance of the brain, or one of its cavities, or one of the membranes enveloping it. Like in many diseases of the nerve-centres of long standing, the symptoms are of a mixed character, bearing resemblance to several diseases. So we have the characteristic fits of epilepsy, the general rigor of tetanus, the impaired muscular power of partial paralysis, and lastly, that extraordinary state called catalepsy or trance. That a person can live in this state for many weeks, and even months, with an exceedingly small supply of nourishment, is a long-established fact. In 1824 or 1825 there was a case of this kind in the University Hospital of Vienna, when a man fell suddenly in a state of catalepsy, continued in it without interruption for eighteen months, came out of it as suddenly, and lived for several years afterwards. The change of matter in such cases is exceedingly slow, the patient, in well-expressed cases, lying perfectly motionless, respiration and circulation being hardly perceptible.

It would lead too far to enter more minutely on this very interesting subject, but I will only remind the reader of the hibernation of many of the warm-blooded animals, and some well-authenticated facts, where amphibious and avertebrated animals have, for an almost indefinite period, continued dormant.

July 4.

To-day Mr. Ross, jun., brother of the girl at the West Taieri, called to give me an account of her present state. Amongst other things, I had recommended that her head should be shaved, and croton oil applied (blisters had been unsuccessful) to the scalp, with a view of rousing her, if possible. This had some effect, for as the skin began to inflame, the girl got restless, opened her eyes, put the hand (right, up to the head particularly if anyone attempted to remove the cloth with which the sore part was covered), and emitted words expressive of pain—intelligible, though indistinctly pronounced. During the last seven days she has had fluid food every night—about a teacupful of strong beef-tea, and the same quantity of tea or coffee, with plenty of milk, and while the effect of the croton oil lasted she was able to suck it in by teaspoonfuls when applied to her lips. She had no fits since I saw her; otherwise seems to be much in the same state, only her skin is said is said to feel pretty warm all over.

I must add to my last week's report—that at the beginning of the present attack the fits came on every night for seven or eight days, and that she had another series of fits between that and the last time. Also that the girl, during her present illness, always seemed to be better during the night than during the day; the breathing became more natural, the jaw relaxed, and she would make efforts to shift herself from the back to the side.

Yours truly, A. Weber, M.D.

W. B.—The preparation is not in the Pharmacopœia, but is a recognised formula by Medical Practitioners, and is ordered with the name of the inventor attached to it. It has been in much use for nearly half a century

Liverpool.—The letter of F.R.C.S., in a recent number of the *Daily Post*, gives a graphic account of the overcrowding of our great northern port, and its consequences. This is the statement given as to the comparative overcrowding and sickness of Liverpool and Birmingham:—

"Liverpool is situated on a big river, on a sloping hill, sheltered from the east, and with natural aids to drainage. Birmingham, again, is built on undulating high land, with no river, no definite trend of land, or exposure of site, and poor natural means of drainage—yet is healthier. A comparison of the statistics of the two towns will show how greatly overcrowded Liverpool is over Birmingham, and the resulting difference in the mortality due to it. The population of Liverpool in 1861 was 493,649, its area 2160 acres, number of houses 39,887, and mortality 13,964. In Birmingham, in 1861, the population was 296,076, the area 2660 (but with Edgbaston 5450) acres, number of houses 59,060, and annual mortality 7127. Thus the population of Liverpool was nearly double that of Birmingham in the same area (or quadruple, taking Edgbaston), the number of houses about a half less, and the mortality twice as much. The average number of persons in each house, in 1861, in England and Wales was 5·36, at which rate Liverpool ought to have housed only 213,794 people, and Birmingham 316,461; so that the one contained twice as many as she ought, and the other might have held more. The chief locality for the employment of the workpeople in Liverpool lies in one line along the docks; and within a quarter or half an hour's walk of this should lie the site of their dwellings. In the present day that will put it within the central axis of the town, and the eastern suburbs will now be too far away. Hence, the greater the employment at the docks, the more will the central parts of the town be subject to overcrowding."

The writer of the letter suggests the establishment of penny trains by the three main railway lines, to enable the labourers to reside at some distance from the docks, in order to avoid the evils of overcrowding.

COMMUNICATIONS have been received from—

T. M.; Mr. G. B. Baker; Mr. Metcalfe Johnson; Dr. A. M. Garrington; Mr. Maundea; Mr. R. W. Foss; Mr. Cuagenven; Dr. Robert Fowler; Dr. E. G. Wake; Mr. G. E. Norton; Mr. Haynes Walton; Dr. Hughlings-Jackson; Dr. Phillips; Mr. T. W. Evans; Mr. J. J. Ilott; Mr. T. C. White; Mr. Wheelhouse; Mr. T. Worth; Dr. Yeld; Dr. B. W. Richardson; Dr. Day; Dr. F. A. Hartsen; Dr. Playfair; Mr. A. Trehean Norton; Mr. Chatto; Mr. T. Buzzard; Dr. Fearnside; Dr. Stothard.

BOOKS RECEIVED—

Ein Collegen-Cruss aus dem Reserve-Lazareth zu Wildbad, von Dr. W. J. Renz—Moffitt's Manual of Instruction for Attendants on Sick and Wounded in War—American Journal of Psychological Medicine, October—Transactions of the Clinical Society, vol. iii.—Fergusson's Manual of Practical Surgery, Fifth Edition—The Manchester Medical and Surgical Reports, vol. i.—Dr. Wellington's Annual Discourse before the Massachusetts Medical Society—New York Medical Journal, October—Twelfth Report of the Herefordshire Medical Association.

NEWSPAPERS RECEIVED—

The Scotsman—Liverpool Daily Post—Medical Press and Circular—Illustrated Midland News—Chemist and Druggist—Edinburgh Daily Review—Nature—Lady's Own Paper—New York Medical Gazette—Guernsey Comet—Bournemouth Visitor's Directory.

APPOINTMENTS FOR THE WEEK.

October 22. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

24. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

Medical Society of London, 8 p.m. Dr. Richardson, "On the Medical Aspects of the Germ Theory."

25. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

26. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

Hunterian Society, 8 p.m. Adjourned Discussion on Mr. Bryant's Paper "On Pyæmia."

27. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

28. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Clinical Society, 8½ p.m. Dr. Sutton, "Two Cases of Scurvy." Mr. Brudenell Carter, "Cases of Optic Neuritis."

Quekett Microscopical Club, 8 p.m. Mr. J. Slade, "On the Microscopical Characters of Cannel Coal."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 15, 1870.

BIRTHS.

Births of Boys, 1102; Girls, 1014; Total, 2116.
Average of 10 corresponding weeks, 1860-69, 1954.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	735	681	1416
Average of the ten years 1860-69	634·7	609·8	1244·5
Average corrected to increased population	...	...	1369
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	2	3	39	1	2	...	5	1	8
North ...	618210	4	4	41	3	5	8	5	2	7
Central ...	383321	2	3	24	...	...	...	1	3	5
East	571158	3	4	27	3	5	3	7	1	7
South	773175	2	5	67	4	8	6	4	1	11
Total	2803989	13	19	198	11	20	17	22	8	38

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·434 in.
Mean temperature	47·1°
Highest point of thermometer	63·1°
Lowest point of thermometer	32·4°
Mean dew-point temperature	40·7°
General direction of wind	Variable.
Whole amount of rain in the week	0·14 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 15, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Oct. 15.	Deaths Registered during the week ending Oct. 15.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2116	1416	63·1	32·4	47·1	8·39	0·14	0·35
Portsmouth ...	122084	12·8	59	45	65·0	28·4	48·7	9·28	0·38	0·96
Norwich	81087	10·9	43	32	58·0	33·8	47·0	8·33	0·78	1·98
Bristol	174382	36·6	132	120	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	39	31	60·1	32·4	45·1	7·28	0·61	1·55
Birmingham ...	369604	47·2	271	145	61·3	35·1	46·8	8·22	1·80	4·57
Leicester	97427	30·4	53	59	60·0	31·0	44·9	7·17	0·74	1·88
Nottingham ...	88888	44·5	48	30	60·5	30·8	45·2	7·33	0·82	2·08
Liverpool	517567	101·3	325	329	60·7	36·2	47·7	8·72	1·54	3·91
Manchester ...	374993	83·6	229	193	59·5	31·0	44·9	7·17	1·61	4·09
Salford	121580	23·5	77	48	59·7	31·2	44·9	7·17	1·57	3·99
Bradford	143197	21·7	99	62	55·1	35·2	45·5	7·50	2·49	6·33
Leeds	259527	12·0	140	140	...	...	...	...	...	...
Sheffield	247378	10·8	199	120	58·0	35·0	45·6	7·55	1·58	4·01
Hull	130869	36·7	93	47	55·0	29·0	43·1	6·17	1·68	4·26
Sunderland ...	100979	30·5	63	34	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	80	48	52·0	36·0	42·7	5·95	0·94	2·39
Edinburgh	178970	40·4	113	81	53·7	33·0	42·9	6·06	0·90	2·29
Glasgow	468189	92·5	402	193	55·7	32·4	44·4	6·89	1·35	3·43
Dublin (City, etc.*)	321540	33·0	149	163	61·9	30·2	47·8	8·78	1·45	3·69
Total of 20 Towns in United Kingd'm	7216325	33·8	4721	3345	63·8	28·4	45·5	7·50	1·20	3·05
Paris—Week ending Oct. 8 ...	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Oct. 8 ...	622087	167	...	240	...	...	52·7	11·50	...	...
Berlin—Week ending Oct. 13 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·434 in. The highest barometrical reading was 29·88 in. on Friday, the 14th, and the lowest was 28·78 in. on Sunday, the 9th.

The general direction of the wind was Variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital.

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

Lecture VII.

We have been considering at some length what share the elements of texture take in the processes that are called inflammatory.

As the inquiry into inflammation is so long that you may not otherwise follow its continuity, broken by intervals between lectures, let me shortly state where we are in the inquiry.

We first saw that our knowledge of inflammation is made up of contributions from several different methods of investigation, of which we enumerated four, namely:—1. Observation of the changes seen in the living tissues under irritation. (This almost solely relates to actions in the vessels.) 2. Observation of the changes seen in dead tissues by microscopic observation. (This almost solely relates to the behaviour of the parenchymatous material between the vessels.) 3. The general characters and varieties of inflammation seen in the post-mortem room. 4. The general characters and varieties of inflammation seen at the bedside. We have discussed the first class of facts, and have been considering the second. In this consideration we have found it necessary first to look over the elements of tissue and make a general arrangement of them into those which have the form of cells in mutual contact, those which have the form of cells with an intermediate intercellular matter, and those which have the form of tubes. This arrangement we have found to respond to the kind of visible activities which the elements show in health and in disease; and we have been observing that the cellular elements behave in a certain way under inflammatory irritations, while the intercellular elements behave in a different way under the same irritations.

Our present question still is this—What factors of the phenomena of inflammation are supplied by the proper actions of the parenchymatous elements of the tissue, as witnessed by the changes the microscope reveals in these elements?

I trust we have seen what a complex thing that inflammation is which is included in the usual comprehensive signification of the word. We shall greatly gain in knowledge of the present relation of pathology and therapeutics if we can fully realise the effect of the light which recent investigations and views have thrown on the nature of the processes that are generally summed up within the limits of inflammation, acute, chronic, sub-acute, and specific. At last lecture I tried to show that acute inflammation is better viewed as the climax of a variety of changes which are probably very diverse in their nature. Nay, that when any process whatever reaches a certain *intensity*, then vascular disturbances, such as are seen in the irritated frog's foot or mesentery, arise, and are accompanied by pain, heat, redness, and swelling, which are the anciently recognised characters of inflammation. The course and tendency of these phenomena being still governed by the process that created them, and of which they are but the outward and visible sign, although the vascular phenomena leading to effusion of blood or liquid from the blood bring some additional risks to the part in whose elements the diseased process is being wrought. I think it would be well to limit the term inflammation to these vascular phenomena of pain, heat, etc., which are strictly the flame of the process.

I wish especially to impress on you that when we say acute and chronic inflammation, and mean by these respectively rapid and short-lived, as contrasted with slow and long-enduring inflammation, we express the relation between the process not only insufficiently, but wrongly. If we think that this difference in time of duration makes the difference between the kinds of inflammation, we are very wrong. Their difference is not only in the time they take to act themselves through. A "chronic inflammation" is in every way other than a slow acute inflammation; and a quick chronic inflammation would not at all correspond to an acute inflammation. They are different things, whatever their relation in origin and cause. They do not differ in time; they differ in kind. It is probably true that in all the cause and seat of the process are originally in the parenchymatous life-centres which we know as cells and nuclei, and that the vascular phenomena of inflammation arise when the action of these cells reaches such a pitch as to gravely disturb the nerve and muscle arrangements that govern local vascular supply, but we must recognise that simple augmentation of a thing may alter its kind. *Quædam incremento non tantum in majus exeunt, sed in aliud.* The relation of chronic inflammation to acute is like the relation of the galvanic current of great quantity and low intensity to electricity of high tension. However identical the nature of the force at work, the effects take place in a new order of phenomena, and must be seen as different in the interest of those concerned in them.

I left off at last lecture with the consideration of the differences in inflammations of the skin which we could trace to the characters of action of the several constituents of skin, especially of its intercellular elements—the connective substratum of the corium. We observed that diseases of the skin in which these intercellular elements take part acquire most important characters from their habits, notably in (1) the unalterable character of any increase in their quantity from irritations so slow as to allow time for their organisation; and (2) the severity of the results of acuter formations of them which do not allow time for the production of forms like the parent elements, but abortively generate unlike forms, which entail the grave results belonging to *heterologous* production of tissue elements at all times.

If we now go on to consider the case of secreting glands, we shall find that degrees or kinds of inflammation in which their intercellular (connective) elements take part have parallel characters of equal importance with those in the skin. When we were considering the general characters of the morbid activity of the cellular elements of glands, we found there were two stages to be recognised—the first in which the individual cells enlarge or slowly multiply, but retain their normal shapes and mutual relations, creating *simple* and *numerical* hypertrophy; the second in which they multiply rapidly, and lose the perfection of their forms, and lose their places, creating catarrhal irritation. Now, both these stages of irritative change have no effect on the intercellular elements. The hypertrophy stimulus fails to reach them, because it is too slight, though prolonged, and the catarrh, because it is not sufficiently violent, though short and sharp. But in severer irritations, either acute or prolonged, the intercellular elements take on the formative process, and an augmentation of their numbers occurs. The effect of this augmentation, as in the case of the skin, depends on the degree of rapidity in the production of the elements. If they are rapidly produced, they are not able to go beyond the embryonic stages, and hence are heterologous and of evil disposition; but if they are slowly produced, then they pass on to complete organisation, and the connective substance of the gland is permanently increased.

Now observe that cellular and intercellular elements of glands pass through similar stages of change under irritations; but they do not pass through these stages together, nor from equal causes. And hence we find in glands several distinct *kinds* of result from different *degrees* of cause. I will state them consecutively:—1st. If there is a very low and prolonged irritation, or even a mere excess of supply, the gland-cells swell, and you get hypertrophy. 2nd. If there is a next higher degree of sub-acute irritation, the gland-cells multiply and become proportionally imperfect in form, and they being retained in the tubes of the gland, cause it to swell. This constitutes catarrhal irritation; as yet the connective is not implicated. The swollen tubes may press on the vessels in the gland, and so important results may occur, as in the escape of albumen from the congested Malpighian vessels of the kidney. 3rd. The next degree of severe acute irritation begins new changes. The intercellular form-preserving elements of the gland in their turn swell up and proceed to multiply, and the change is one of true suppuration, with more or less of severity and tendency to blood infection.

Now please observe an important *opposition* in the behaviour of the two sets of elements under these increased degrees of irritation. It is this—the cellular elements altogether or nearly cease arising under about that degree of irritation which starts the intercellular elements into rapid proliferation. When the cutis swells and reddens, and its tissue is being charged with new embryonic connective intercellular, then the cellular scarf-skin is thrown off, and you get an exposed, raw corium.

Also in the glands, as far as I have been able to see, the same happens. When the irritation reaches such a pitch that the intercellular elements in the form-maintaining connective are

proliferating, then the production of the proper cellular elements of epithelium in the tubes fails altogether; you get, in short, a complete desquamation, and the tubes of the gland become emptied of their epithelium as far as they can—I mean as far as their blocked state will allow the passage of their contents out of the tubes. Hence suppuration of glands is parenchymatous and never epithelial. Of this, I believe, close observation will always enable you to be sure.

These degrees and limits of inflammation in gland tissue are best recognised and investigated in the kidney. I have before spoken of the simply epithelial (scarlatinal and large white) kidney disease; in these the epithelial elements alone are multiplied, and there is no formation of new embryonic elements in the connective substratum of the kidneys. This is a thing you must remember, and will find always to be true, that the so-called inflammation of the kidneys in Bright's disease never runs on to suppuration under any circumstances.

The irritation required to produce suppuration of the kidney is of a higher kind; and what I want to impress is that the reason is this: that in degree of severity the irritation is one that limits itself to the epithelial elements, while the connective elements want a much more severe irritation. When this comes, then, you get the formation of pus in the connective, and this occurs only in pyæmia, and in the spread of acute inflammation from the bladder up the ureters to the kidneys.

In the salivary glands we have an epithelial irritation in mumps, as a totally different thing from acute inflammatory multiplication of connective elements, with its terrible results. This is rare in salivary glands, but you will meet it sometimes, after continued fevers especially. The epithelial irritation in mumps responds to the epithelial irritation in scarlatinous kidney. There is not known to exist in the salivary glands an obstinate chronic epithelial change like that in the large white kidney of Bright; but you know the ordinary process of post-mortem examination, how it almost necessarily leaves the salivary glands untouched; and we may be overlooking a very important disease. I should say that suggestive observations have been published on the states of the pancreas by Klob and others, in which conditions similar to chronic cirrhosis have been recognised. The same remarks are true of the irritations of the liver. We recognise, though far from clearly, that the cell elements of the liver will swell from slight irritations, as in the fever of pyæmia, in which the characteristic tinge of jaundice is accompanied by a swollen and succulent state of the organ, founded in a cloudy swelling of all its cells. It is doubtful whether more than swelling of the cells takes place. Then, in scarlet fever, signs of inflammatory irritation of the liver have been observed by some, though, I think, doubtfully. But there is no liver disease that corresponds with the large white kidney of Bright—that is, which offers to us the cellular elements proliferating and passing off until the original stock of them is irrecoverably degenerate and lost. The next degree of acute irritation to the slight and even doubtful inflammations of the liver I have spoken of, is destructive pyæmic or other abscess which is founded in rapid degenerative multiplication of the connective elements. If you watch the steps in the formation of abscess, you see it shows itself first in a diminution of the consistency and bulk of the spot attacked—and here the microscope reveals a breaking down of the liver cells—while on the edges of the abscess the formation of pus in the connective elements about the interlobular veins may be seen. Cirrhosis of the liver belongs to the chronic form of intercellular irritation, which I shall presently take up.

A certain part, then, of the character of cutaneous and glandular diseases arises out of the law that the *intensity* of irritations required for the rapid proliferation or multiplication of connective tissue elements overpowers the cellular elements and leads to their detachment and loss. We find it gives us a certain set of changes in the skin and glands, which have a very definite nature, which it is right to recognise.

But if, on the other hand, this irritation, instead of being so *intense* as to thus destructively affect the epithelial elements of the glandular tissues, and quickly produce a quantity of embryonic connective tissue, is prolonged or repeated in more moderate intensity, then the change is felt by the connective tissue elements; and these are slowly multiplied, and the new elements completely organised, so that an increase of the connective tissue of the gland arises, and the gland becomes harder. The epithelial elements are then not altogether removed, but their nutrition is seriously affected in the way we have found in these prolonged irritations, causing them to waste away. We cannot know by observation what is the actual process as concerns these cellular elements; they probably multiply and go all the while. There is evidence enough that the augmentation of the connective tissue reaches a high pitch without any phenomena of inflammation in the clinical sense.

This constitutes a distinct kind of sub-inflammation of glands, which is very important and very widely distributed. I wish to do justice to the clear differences there are between this and the other two kinds of sub-inflammation—kinds founded in differences of degree of irritation, bringing out to light differences in the natural action of the several elements of the compound tissue. Every tissue that contains connective elements is more or less liable to this chronic connective irritation. The names given to the produced change are cirrhosis or induration, or the vague term chronic inflammation, which we have already seen has several applications. The liver, the lung, the kidneys, the brain and spinal cord show it best, but the characteristic permanent augmentation of connective elements, with diminution and degeneration of the cellular elements, are found in the mucous membranes, skin, blood glands, and lymph glands, though in these they are not recognised as important diseases.

In the liver, this chronic connective irritation constitutes *cirrhosis*, and produces a very characteristic and well-known appearance of the organ. All the connective tissue elements in the liver multiply, in proportion to the quantity in each part. The quantity of it about the greater vessels shows most; then around the vaginal and interlobular veins there is successively less of increase, because of the successively smaller quantity there is to increase from; but even about the individual lobules, the connective augments so as to become visible, as it naturally is not at all. By this increase of bulk it exercises pressure, and it uses a further pressure through the property all new-formed connective possesses of contracting in the process of its development. And so the tissue of the lobules is compressed, and this tends to destroy it. But this pressure from without is not the principal agency or mode of the destruction of the lobules; for, if you carefully examine fine sections of cirrhosed livers, you will find that the new-formed connective elements spread *into the lobules* along the radiating course of the capillaries, and divide up the lobule into smaller bundles of cells, while tracts of cells disappear in the path of this spreading fibre tissue. But if you watch the disappearing cells, you will miss any marked sign of compression of them. Often you see a single cell remaining from a cluster that must have comprised hundreds originally; yet this cell has its outlines tolerably perfect, its neighbours having wasted away evidently without direct pressure, so that a wasting of the cells forms part of the process. In other spots, relics of cells among the bundles of fibre look really as if compressed; and thus it appears that both compression and wasting combine to destroy the secreting cells of the liver in cirrhosis. The destruction goes on until you see the place of a lobule at last only indicated by the scattered remains of its columns of hepatic cells, and these choked up with pigment, or shrivelled, or often loaded with fat. Meantime, the hepatic artery which supplies the growing new connective expands and becomes thicker, and its minute branches in the tissue multiply, so that the tissue is tolerably vascular; but the portal capillaries between the lobules waste, so that there is great obstruction to the flow of blood through them; and hence the vein is mechanically dilated, and the blood stagnates, and may even coagulate in it.

Now, this description of chronic connective irritation in the liver may be taken as the type of a series of connective irritations in other organs. We shall see that the lung, the kidney, and the brain often present us with changes that are exactly like this hepatic cirrhosis.

In the lung, we often meet with this kind of change. The pleura is thick, and the interlobular septa are thick, so that the lung is marked off very obviously into lobules by these fibrous septa; then, from these septa, fibres invade the lobules, and divide up the air cell tissue, and partly compress it, so that it wastes, and its place is taken by the fibre, while a wasting process not due to pressure appears in the tissue, and the epithelium of the air cells especially is observed to be fattily degenerated. This goes on until there is left in parts of the lung, or in the whole of one lung, little more than tendinous, hard connective. The bronchial tubes are altered, but differently in different cases: sometimes they shrivel, sometimes they dilate. When this connective irritation attacks one lung and avoids the other, then its progress is carried to a severe degree, and the term cirrhosis is used to describe it. In such cases the pulmonary artery wastes, and may be obstructed, while the bronchial artery enlarges. In other cases, a change essentially the same affects both lungs, and then it does not proceed to such an

extent. A very important feature of this change is the liability of the tissue to circumscribed gangrene, if an acute inflammation attacks the lungs, so that vomicæ are produced simulating phthisis. Here, as in the cirrhosis of the liver, the change consists of increase of the intercellular elements—*i. e.*, the mechanical framework of the lung—with destruction of the functioning part of its texture. The two processes are alike in their essential character, and the leading change takes its insidiousness and permanency from the normal physiological characters of the intercellular mechanical elements.

In the kidney, the same process forms the so-called granular kidney, which it was long ago proposed to call cirrhosis of the kidney. The same terms would describe the change: augmentation of the connective tissue between the bundles of tubes, compression of the tubes by its contraction, and then entry of the growth into the bundles or lobules of the kidney; while the tubes waste away in a degree greater than this pressure will explain; some lobules are destroyed more than others, and the radiating arrangement of the lobules of the cortex is lost sight of; the proper functioning elements waste; compressions of points in the course of the tubes lead to dilatation of the parts above to form cysts—as in the lung, the bronchia dilated or were compressed. Then come the changes in the vessels. The supplying vessel—the renal artery—thickens, while many of its functioning arterioles in the Malpighian glomerules shrivel away.

In the brain a change of the same nature, but less evident, occurs. The brain shrinks, its convolutions become narrow and separated by wide sulci, and its substance grows firm. At the parts where the interstitial connective tissue (the so-called neuroglia) can be observed with the naked eye—namely, in the ependyma of the ventricles—it is seen to be very thick, and it rises on the ventricular surface in little elevations, which give the ventricle the appearance seen on the leaf of an ice-plant. When the microscope is used, we meet with a difficulty in recognising the connective element, which has very negative characters; but I believe careful comparison shows both thinning of the fibres of the brain and increase of the connective (neuroglia); at least, this is often well seen just under the ependyma of the fourth and third ventricles. In this case, too, the arteries that supply the brain are thickened much, as was the case in the liver, lung, and kidney; but the most constant accompaniment of this general induration of the brain is a thickening of the membranes and a formation of cysts in the choroid plexus. These form the most prominent instances of chronic connective multiplication; but the *stomach*, in states of chronic gastritis, gives us very perfect examples, so that *cirrhosis of the stomach* certainly exists. You find the stomach hard-walled and thickened; and, on examining sections of it, you discover the same changes—augmentation of the connective tissue, with wasting of the epithelium of the tubes—so that the same description applies.

ORIGINAL COMMUNICATIONS.

NOTES FROM THE WAR.

By A. TREHERN NORTON, F.R.C.S.,
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(*Continued from page* 474.)

A LARGE number of cases occurred in which the bullet was deflected simply by the deep fasciæ, and in these a subcutaneous sinus of variable length was produced; cases in which the bullet was turned by points of bone were also numerous.

Before leaving England I heard that a large majority were wounded in the lower limbs. I did not find this to be markedly the case. Injuries to the trunk and head were perhaps not so numerous as those of the extremities; but then this is to be accounted for by the fact that those parts are more vital, and that, therefore, a great number of such injuries were among the slain. From the battle of Mars-la-Tour there were many sabre wounds and some few lance wounds; I met with one bayonet wound only. In many cases in which the ball or portion of shell had pierced the deeper structures, numerous nerve fibres were divided, and paralysis was produced, varying from a simple numbness of the skin in some cases to complete motor and sensory paralysis of the parts below the injury in other cases. Where muscles were much lacerated or divided, movement was performed with difficulty, or accompanied with pain, even after the recovery from the injury. But one wound from a mitrailleuse came under my care. It was, of course, a German. Several balls had entered the calf of the leg through the muscles, of which they had cut a flap about four inches in length. Below this flap again was a smaller lacerated wound, produced, perhaps, by a couple of balls. Now, the mitrailleuse ball is much larger than the other varieties, and the charge is lodged in a square case containing five rows, each of five balls—in all, twenty-five. Many of the mitrailleuses, I believe, are capable of being moved laterally, so that more than one ball shall not strike any one spot; but in this case it was evident that the movement had not been put into action, and that one row of balls, five in number, had struck the patient. The treatment adopted was cleansing by irrigation, and the application of charpie with a disinfectant. The wound, after being rid of the destroyed surface, commenced to granulate, and the case did well.

The following cases give a good idea of the forms of subcutaneous gunshot wounds met with:—

Case 1.—A French colonel was wounded by a ball in the knee. The ball had entered about the centre of the external condyle of the femur, and made its exit at a corresponding point on the internal condyle. The course of the ball appeared to be through the joint. It had, however, been turned by the condyle, and had made a subcutaneous circuit behind the joint without injury to any deep structure.

Case 2.—A private of the line had been wounded by a ball in the forearm. The ball had entered the radial side of the forearm, about four inches below the elbow-joint, and passing beneath the skin on the flexor aspect, had made its *sortí* on the ulnar side. The course of the bullet was readily made out by the probe; the deep structures, though not cut by the bullet, were probably contused, for there was some difficulty experienced for a time in flexing the fingers. The superficial veins were severed, and the median vein above the wound became knotted, painful to the touch, and reddened. Hot fomentations were applied to the induration, and the wound was treated in the same manner as other wounds of this class.

Case 3.—A private was wounded in the abdomen. The ball had entered the abdominal wall near the external margin of the rectus abdominis muscle, on a plane two inches above the crest of the ilium. It had made its exit about two inches from the spines of the vertebra, having traversed the walls of the abdomen without entering the cavity. In this case the ball must have entered the surface somewhat obliquely, and must have been turned by the tendon of the obliquus externus.

Case 4.—The ball had entered near the lower angle of the scapula, and had passed upwards along the neck as high as the fourth cervical vertebra. As the ball rose over the spine of the scapula it perforated the integument, but did not make its escape. It dipped again below the skin, and continued its course into the neck, from which position it was removed by an incision. In this case the two openings at first led one to believe that the ball had passed out, but the character of the peculiarly hard structure by the side of the vertebra was unmistakeable.

Case 5.—A private was wounded in the shoulder in the fight near Assonay. The ball appeared to have passed through the shoulder-joint, entering in front by the head of the humerus, and passing out at the spine of the scapula. There was considerable inflammation and œdema over the region of the joint. An incision was made, and a portion of the uniform, which had been carried by the ball into the wound, was removed. The cavity of the joint was unaffected.

Case 6.—A young Saxon cornet was wounded in the region of the knee. The bullet had traversed the skin for some four inches above and below the left joint on its outer side. General suppurative cellulitis immediately set in; several counter-openings were made. The whole limb from the foot to the hip was included in the disease, so that the quantity of suppuration was excessive. The limb was tender, and naturally gave pain when moved at all; but the knee was not complained of more than any other part, nor was there greater swelling over the joint than at any other part, and there was no collection within the joint. Shortly the pulse became small and rapid, a hectic flush appeared on the cheek, and the patient died.

At the post-mortem it was found that the external lateral ligament had suppurated (doubtless injured by the bullet), so that the joint was open, and suppuration had gone on within the joint as well as in the cellular tissue.

In the thigh and upper arm several cases occurred in which the two apertures were opposite to each other, and in such a position that it appeared that the ball had passed through the bone; but, on examination, the bone was found unbroken, and the course of the missile was readily detected by the probe or

finger. Cases in which the ball had penetrated the muscles and deeper structures, but without injury to the bone, could be easily distinguished from those in which the ball had taken a subcutaneous course, for the muscle or muscles were either paralysed or, when put into motion, produced a considerable amount of pain.

A Saxon lieutenant was shot in a small encounter near Audun-le-Tiche. The ball had entered in front of the thigh, about three inches below Ponpart's ligament. It had pierced the rectus femoris, passed round the bone without fracturing it, probably through the vastus externus, making its exit about an inch below the tuberosity of the ischium. The wound progressed favourably throughout, but yet at the end of five weeks he could only raise the limb in bed with the assistance of his hands, and any attempt at extension produced great pain.

All the above cases showed some inflammatory symptoms immediately after the receipt of the injury. The subcutaneous course of a bullet was marked with redness and œdema, and the pain was considerable; but by means of irrigation these symptoms were in most cases readily overcome. It has been seen that one case, apparently a superficial injury, died from cellulitis. The rest recovered, or, at least, were so far advanced at the time I left for England that but little doubt could be entertained of their recovery. The treatment adopted in these cases was simply cleansing with a disinfecting wash (carbolic acid). A small indiarubber tube was inserted into one of the two orifices made by the bullet, and a stream of the disinfecting fluid was made to flow freely through the wound. By this means no pus could collect. Over each orifice was then placed a pad of charpie or English lint dipped in carbolic acid (1 part in 60). A compress was next applied along the course of the bullet, and a bandage around the limb completed the dressing. When it was thought advisable, the current through the wound was discontinued, and the compress alone applied.

(To be continued.)

A NEW METHOD OF TREATING ULCERS BY TRANSPLANTATION OF SKIN.

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Every Surgeon is more or less frequently called upon to treat obstinate ulcers, such as result from severe burns, or those chronic ulcers of the leg which crowd our Hospital out-patient rooms; and most will acknowledge the difficulties, uncertainties, and delays which attend their treatment, and will hail with corresponding satisfaction any method of treatment which promises to be efficacious, whilst at the same time it is safe, simple, and expeditious.

M. Reverdin has introduced a new method of healing ulcers by transplantation of skin. He took minute portions of cuticle, placed them on the open granulating surface, and kept them in position by strapping. The plan I have adopted in imitation of M. Reverdin is similar in character, though somewhat different in detail. It is a matter of everyday experience how the progress of the healing of a large ulcer has been expedited by the formation of an island of cicatrisation in the centre of the ulcer, as an auxiliary to the marginal healing process. Having noticed this beneficial result, it seems strange that no one should have attempted to imitate nature in this particular. The experiments I have made have this object in view; should they, after further trial, prove as satisfactory as they have hitherto done in the numerous cases in which they have been tried in the General Hospital in Bristol, they will, I feel sure, be brought into frequent requisition wherever ulcers are found. Especially will the benefits of this plan of treatment be apparent in those large unhealed surfaces, the result of severe burns, where the entire integument has been destroyed for a considerable distance, and which heal to a certain extent from the margin of unharmed skin, refuse to obey further the dictates of nature or the resorts of art, or, healing, bring with them deformity still more terrible than the unhealed sore.

The following may be taken as a typical example of the cases referred to, and will serve to illustrate fully the method of treatment by transplantation of skin:—

T. H., aged 15 years, was admitted into the General Hospital, at Bristol, under the care of Dr. Marshall, on November 5, 1869. He had been playing with fireworks, and had his right trousers' pocket full of squibs; these by some means exploded, giving rise to a most fearful burn of the whole of the right side and front of abdomen, extending nearly three inches above the umbilicus in one direction, and two inches below Ponpart's ligament in the other. From this extensive surface, the whole of the integument sloughed, leaving the abdominal muscles and muscles on the upper part of the right thigh quite bare and exposed. This, in due time, granulated healthily, so that by February the surface had healed, with a circumferential cicatrix of about three inches in diameter, enclosing a large open granulating surface, eight inches long by five wide, which refused persistently to heal further. It seemed (as no doubt was the truth) that the healthy skin had propagated its power of healing to the granulations to a limit which it was incapable of further extending: for the portion healed showed, as is usual, near the margin of the skin, a tissue apparently similar to the skin; but as it proceeded towards the centre it lost more and more its skin-like appearance, and assumed more and more the cicatrix-like aspect, until, at the margin of ulcer and cicatrix, the cicatrix was of a depraved and ill-nourished character. This, then, was the state of things: that for nearly six months no advance towards healing had been made, but, if anything, a retrograde movement, and this in spite of every measure that could be suggested, until the experiments of M. Reverdin were made known to me.

Then, on July 16, I took a small piece of sound skin from the thigh, about the size of half a split pea, made an incision into the granulations, and, the bleeding from this having stopped, I inserted the portion of skin I had removed from the thigh into it, much in the same way as a graft would be inserted into the bark of a tree; on the second day the cuticle separated from this, and on the fourth day there was only a trace of the original insertion to be found. This led me to suppose that my attempt had been a failure; but on the sixth day a faintly vascular spot arose in the granulations at the site of my operation, so that on the 27th, sixteen days after the original transplantation, the note I made was this:—"A patch, pale and cuticular, is now very apparent on the surface of the wound; it has the distinct aspect of new skin, and is rapidly extending the healing process, as from a centre." I was so much encouraged by the aspect of affairs, that I at once renewed my attempts, and speedily met with the same success.

On July 31, four days after, I found the second insertion was pursuing the same course as its predecessor; this stimulated me to try my experiment still further. I accordingly took from the inner side of the arm a piece of skin, not so large as half a split pea, divided it on my thumb-nail into three portions, and inserted them into the granulations as before, and with like results. As I proceeded, I grew still bolder in my subdivisions of the original morsel, until finally I have divided it into as many as nine pieces, and dotted the surface of the granulations with them at short intervals, and almost uniformly with like magnificent results.

To sum up the behaviour of these minute portions of skin in their novel situation, once for all, I may say, speaking generally,—that at about the second day the cuticle begins to separate; that by the fourth day only a faint pale spot marks the insertion, or there may be no evidence of it left at all; by the sixth day a faintly vascular tuft of granulation appears; this becomes glazed, and in a few days more the usual covering of cicatrix is formed. The patch is usually circular, and presents slight ridges; its aspect, as a whole, is difficult to define in words; it bears some resemblance to a flattened, badly-marked limpet shell; it requires to be seen to be understood. This patch continues to increase in size circularly, until it reaches its maximum of growth—for it has a maximum of growth. I have never seen a patch larger than a florin, and I have now seen large numbers of them: I should say that their average growth will not exceed the size of a sixpence.

This, then, is their history, as I have observed it; of course, it is subject to variations, and here and there a graft may fail, either from a fault in the skin or granulations, or from some want of delicacy, or from carelessness in the manipulation—for it is just one of those procedures which, though simple and easy of execution, require care and attention to minute details.

It is not necessary, in my opinion, nor is it advisable, to remove the whole thickness of the true skin for the purpose of transplantation; but I believe it to be absolutely necessary to remove more than the cuticle. I usually remove just so much of the true skin as will leave on the surface, from which it is removed, that white and dotted appearance seen in a horizontal cut into the integument. The operation itself is almost painless; at any rate, I have had no complaint from those patients who have borne it. The portion of skin removed looks white, shrivelled, and contracted.

This case, which I have detailed somewhat fully (but I hope not more fully than it deserves) has been selected out of several, because it was the first case in which I tried transplanting the skin, and because its result has been so eminently satisfactory. There was a wound eight inches long and five broad, which had not made a single step towards healing; nevertheless, it healed perfectly in a little over twelve weeks. He had altogether seven pieces of skin removed, which, by subdivision, yielded about forty insertions, by far the greater number of which lived in their new home; so that his wound was at first dotted with islands of cicatrisation, pretty closely set—for, as I said before, the average growth of each insertion did not exceed the size of a sixpence, and was sometimes less—island after island of which united, forming what I may term (stretching the geographical simile) a huge continent of cicatrisation; so that he left the Hospital quite well, the wonder of all who saw him, and an object of interest and satisfaction to myself.

Twelve weeks may seem a long time for what I have called (and I think justly) a speedy cure; but I would have it borne in mind I had to deal with a very large wound, the healing powers of which were already exhausted; and it is also to be remarked, in the reduction of the period of cure, that for fully half the time I was simply feeling my way.

With reference to the number of insertions, they might have been less, but the healing of the wound would have been proportionately slow.

The above case is not a solitary one; I have myself tried it in several others, including an old varicose ulcer of the leg, which had troubled the patient for twenty years, and which healed under transplantation in five weeks, with a firm and sound-looking cicatrix. I have also a most interesting case, in which the whole thickness of the integument on the front outer side and back of leg was destroyed, before the patient came into the Hospital, by phlegmonous erysipelas. I need not detail this case, as its results were similar to the burn case.

Perhaps the most extensive field of usefulness for this new method of treatment will be found in those chronic ulcers of the leg which abound in such numbers.

I will give you very briefly the account of one such case under Mr. Coe's care, and which is still under treatment: it serves to illustrate the fact that the granulations of a chronic ulcer in an old man are capable of supporting and extending the growth of transplanted skin, although less powerfully than the healthy granulations in the young boy; it also illustrates, as Mr. Coe pointed out, and as will be seen in the following notes, that skin taken from a young subject and inserted into the ulcer possessed more power of extension and rapidity of growth than did that transplanted from the man's own arm under similar circumstances. (I might here say, what I ought to have said sooner, that I am much indebted to the Surgeons of the General Hospital, not only for many suggestions, but also for opportunities of treating cases myself, as well as for allowing me to make use of cases treated by them.)

The notes of the case referred to are these:—

R. S., aged 56, but looks much older; admitted into the General Hospital under Mr. Coe; has had varicose veins and ulcers of leg for ten years. At the time of his admission he had three large indolent ulcers, with white and indurated margins, one situated on the outer side, one on the inner, and the third in front of the leg; the granulations were covered with a thin, dryish film of exudation.

On October 1 Mr. Coe made one transplantation on the outer ulcer with a very small piece of skin taken from the forearm of one of the pupils (Mr. Herapath), and he also took a small piece of skin from the man's own upper arm, dividing this into three pieces, and inserting them rather deeply in the granulations; at the same time I made five insertions in the ulcer on the front of the leg, by first taking a small piece of skin about this size, ○, and dividing it on the thumb-nail; a broad strip of strapping placed over all: a narrow piece of Lister's plaster being first applied to prevent the adhesive plaster from sticking to the transplanted pieces of skin, and thus pulling them off on its removal—an accident likely to occur.

3rd.—The strapping removed. The pieces of skin all appeared white, as is their most usual appearance at this period, some evidently losing their cuticle.

4th.—The portion taken from Mr. H.'s arm is quite apparent; the others are not so distinct. In the front ulcer there are five patches, all having a bluish look, just losing their cuticle, and evidently growing.

7th.—Four of the insertions in the front ulcer are, to-day, very well defined, and appear as red glazed spots of granulation. The colour is deeper, and the surface more prominent than the surrounding granulations. The same thing occurs in the upper ulcer, except that the insertion from the skin of Mr. H. is much more advanced in growth than its contemporaries.

8th.—Four fresh insertions from the patient's own arm.

13th.—The insertions on the lower ulcer are rapidly extending, and are joining each other in such a manner as to speedily meet the portion which has healed from the margin, and thus complete the cicatrisation.

I need not relate this case further, except to say that it is healing rapidly and perfectly.

My object in giving this case thus far was to point out one or two differences in the behaviour of the transplantation in the chronic ulcer of the old man, as compared with what took place, as I have before described, in the healthy granulations of the burn in the young boy. What struck me most forcibly was, that the granulations were less capable of receiving the skin-forming impression from the transplantation in the old man than in the boy. How far this was due to the skin inserted, or how far to the granulations, I am not prepared to say; I believe the granulations had some share, and I am certain the skin had also, for it will be noticed that the skin taken from the younger person grew with greater rapidity and vigour than that from the patient's own arm. This, I take it, was only an instance of that feeble nutrition which is an indicator of advanced years, whilst the more vigorous growth of the alien skin was only proportionate to the greater vitality of the younger tissue, and would account for the more tardy recovery (in proportion to the size of the wounds) of the old man as compared with the boy.

It will be observed that I speak of a "skin-forming impression;" I do so because I think it probable that the patch which results from the insertion into the granulations of a minute portion of skin, not larger than a pin's head, is not the result, merely, of an extension of growth from the inserted skin itself; but, possibly, that the skin inserted gives to the granulations an impression, or rather a direction of growth, the result of which shall be that they shall form a permanent covering for themselves in the shape of a cicatrix, rather than continue their abortive attempts at repair, as shown by the production of pus cells—for it will be observed, in such a case as the burn I have spoken of, the ulcer healed from the margin as far as it was capable. Then what was found? not that the inclosed granulations were inactive—on the contrary, they were unceasingly active, perpetually struggling to cover in their surface, and as perpetually foiled in the attempt, not from want of power of growth, but from want of proper direction of growth; they possessed the material, but had lost the model of the structure which this material should form.

The patch resulting from the transplantation has, as I before remarked, a limit of extension, and the central spot from which it sprung appears to have a higher development than does its extreme edge; the same thing occurs in the marginal healing process: the portion of cicatrix nearest the skin in position is also nearest to it in texture; losing more and more, as it advances, the pattern of the original, until we reach a spot—in large wounds, at least—where nothing but abortions of natural tissue occur, in the shape of pus cells. What I believe I do by transplantation, in such cases, is simply to insert a pattern of skin; and this pattern is impressed on the granulations to a certain, but limited, extent—it simply supplies them with a proper model whereby they may fashion themselves. It does not seem that the skin, of its own inherent properties, increases and multiplies many fold. We know, at any rate, that when a piece of skin is accidently cut from the body, if immediately replaced, it may grow; but this growth does not involve an increase in size, such as is seen in the transplantation. I am sure that had the same piece of skin been placed on an open granulating surface, such as was found in the burn case I have reported, it would, under such circumstances, have given rise to an extension of growth—and why?—simply because the existing granulations had a tendency to form a tissue approximating closely to the destroyed texture—the skin—whose place for the time being they were supplying, and which had lost their way of growth in consequence of their position so far from the original texture.

As practical hints to those who may wish to try this new method of treating ulcers—which I have heard, with justice, described as one of the most important discoveries of modern Surgery (whether looked upon as a fact, that a minute portion of skin, perfectly isolated from the body and then placed on a granulating surface, is capable, not only of living in its new home, but also of conveying to the granulations an impulse to imitate its texture; or whether we consider its practical utility in such cases as I have mentioned)—I may say, then, when

other methods of cure have failed, or when we wish to expedite recovery, let the granulations first be made as healthy as possible by cleanliness; let the portion of skin to be used be taken from the inner side of the upper arm, for it is here both more supple, free from hairs, and possesses great vitality, and is also in a very convenient situation to remove. In removing the skin, I usually pinch lightly a small piece between my finger and thumb, and cut out with a sharp scalpel a piece not bigger than half a split-pea, and divide this on my thumb-nail into five, seven, or nine pieces, as the case may be; then, with the point of an ordinary sewing-needle, I either insert or place them on the granulating surface. If the granulations are healthy and florid, I simply place them on; if old, feeble, and dry, I first incise and then insert. Take care that the dressing is of such a nature that it will not pull off the inserted skin when first removed. Be careful not to make too deep an insertion, or it may be entirely enveloped, and will be longer showing itself. Do not, if it can be avoided, remove with the skin any of the subcutaneous cellular tissue; but more than the cuticle is absolutely necessary. Dot the transplantations over the surface of the granulations in such a manner, and sufficiently close together, as to speedily subdivide the original wound by their coalescence. It is interesting to notice how a row of these dots will extend and cover in the granulations. Like the march of an invading army, outpost after outpost of transplantation takes permanent possession of the granulations. The mode of procedure is altogether different from the old Taliacotian operation, in the fact that the pieces of skin are perfectly isolated for a time. The cicatrix which is formed is certainly equal, if not superior, to that seen in ordinary large wounds. As to its tendency to contract and produce deformity I cannot speak, as the only burn in which I have transplanted was on the abdomen, where no great contraction would be likely under any circumstances to occur.

It may be urged that the great drawback will be the refusal of patients to submit to the treatment. I have at present had no refusal, and none complain that the pain is severe.

It is difficult to make the results I have met with apparent on paper—the cases require to be seen to be appreciated. Without this, it might be thought that I had drawn upon what Professor Tyndall felicitously calls "the mightiest instrument of the physical discoverer"—the imagination. The cases I have given, if they stood alone, would be sufficient to controvert this; they have been selected out of several as typical examples of their kind of the value and practicability of transplanting skin in ulcers.

P.S.—Since the foregoing was forwarded to our office, Mr. Dobson has removed from the inner side of the patient's upper arm (whose case has been mentioned above, as having lost the whole thickness of the integument on the part of the leg from phlegmonous erysipelas) a piece of skin not larger than half a split pea, divided this into twelve pieces on his thumb-nail, inserted them into incisions in the granulation in three rows, placed a piece of Lister's lac plaster over them, and over this a strip of ordinary adhesive plaster. Mr. Dobson informs us that eleven of the insertions are growing vigorously. The object of the lac plaster was to prevent the newly inserted skin from being pulled off before it was firmly adherent.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE TREATMENT OF ULCERS AND OTHER GRANULATING SURFACES BY TRANSPLANTATION OF SKIN.

Since Mr. George Pollock's first trial of the ingenious method, proposed by M. Reverdin, for hastening the healing of ulcers by transplanting to their surface little bits of healthy skin from other parts of the body, the capital results obtained in St. George's Hospital have attracted much notice, and the treatment has been already, since July, widely adopted, and, as we hear, with unexceptionably favourable results when employed in suitable cases. It will interest such of our readers as are not acquainted with this mode of procedure if we briefly relate Mr. Pollock's first case, and subjoin other instances from some of the London Hospitals. The child in St. George's Hospital was eight years old, and had been severely burnt eighteen months previously, as a result of which a large granulating surface, about eighteen inches long and twelve wide, occupied the outer aspect of the lower portion of the thigh. Such a surface would, of course, require a very long time to heal over in the ordinary manner, and, in point of fact, it had made hardly any progress for some months before the child's admission. Early in May, Mr. Pollock took two minute portions of skin from the child's side, and making incisions in the granulating surface, planted the morsels, and kept them in place by a piece of strapping. At first almost buried from sight, these bits by the end of the second week became visible as minute foci of cicatrisation, and thence continued to increase very satisfactorily. Other bits were now inserted in fresh portions of the ulcer, and these growing in like manner, the large raw surface was rapidly converted into a healing sore, cicatrisation proceeding from several islets simultaneously. It is noteworthy that in this case the pieces transplanted were said not to exceed millet-seeds in size, and much stress was laid upon this fact—the minute size of the grafted portion being deemed essential for the success of its subsequent growth. Later experiments have shown that much larger bits are quite as efficacious. Some of the portions of skin grafted by Mr. Lawson, in the Middlesex Hospital (cases quoted further on), were quite as large as sixpenny-pieces, and these took on a capital growth, the original bit remaining quite distinct, as an island of pale healthy skin in the midst of bluish glazed cicatricial tissue, after the ulcer had completely healed. Neither is it necessary to prepare the site of the transplanted portions by irritating or disturbing the granulations in any way.

The whole process is an exceedingly simple one. Having waited until the wound or ulcer has assumed a fairly healthy granulating appearance, with a small pair of forceps and a sharp pair of scissors a little bit of sound skin is pinched up and cut off. The scissors are more handy when curved on the flat, and care must be taken to include in the bite of the forceps the whole thickness of the true skin. The inside of the upper arm is a convenient place from which to take these portions, and the process gives so little pain that patients hardly wince when it is done. The little bit is then pressed flat with its under surface upon the granulations, and kept firmly applied by a strip of plaster passed across the ulcer. The transparent isinglass plaster is useful, in permitting the Surgeon to see through it and watch the fate of the graft. This plaster may be left for five days or a week, by which time the little bit will have become firmly attached in its new bed, and perhaps, if very small, imbedded and hidden amongst the granulations. It will soon, however, become again apparent, and then, with a lens, the characteristic blue line of growing cicatricial tissue will be discerned surrounding it. The great value of this plan of treatment, in the healing of the large raw surfaces left by severe burns, in which cicatrisation by ordinary means is so apt to produce severe deformity, is obvious; but to Surgeons with much out-patient practice amongst the poorer classes, it will be a further real boon in raising that *bête noir* of out-patient practice, the chronic ulcer of the leg, from the depressing and irritating position it now occupies to the level of an interesting subject for ingenious and successful treatment.

THE WESTMINSTER HOSPITAL.

So far as we know, Mr. Francis Mason, at this Hospital, was the first to repeat Mr. Pollock's experiments. We had the opportunity of seeing the first of his patients: a girl, who had received very severe burns, and who was in consequence seriously deformed, the face being drawn down upon the chest. Mr. Mason hoped to develope the grafting plan in this case by transplanting portions of sound skin on to freshly-cut surfaces after freely dividing the tissues. In this he was disappointed; and we believe that in a subsequent trial, when the surface was granulating, the process again failed. This case was one of special interest, and is to be published in detail elsewhere. Since then, however, Mr. Mason has applied this treatment to eight other cases, and generally with success. Once it failed completely, all four grafted bits dying; and on another occasion three out of four sloughed, the remaining one making but feeble way. These failures arose from the trial being made upon unhealthy ulcers. In all cases pieces the size of canary seeds were employed, and in all these bits remained perfectly visible throughout the process.

UNIVERSITY COLLEGE HOSPITAL.

Shortly after the Westminster cases, Mr. C. Heath, at University College Hospital, applied the method two or three times. We saw the first two of these on the occasion of a

ward visit on September 7. The process was exactly that which we have described above.

M. S., a woman, aged 46, was admitted under Mr. Erichsen's care with encephaloid disease of the breast, for which the whole breast was removed, together with much skin. The large wound resulting healed but slowly, so that when we saw her there was a healthy-looking granulating surface, six inches by three, cicatrising slowly at the edges. Mr. Heath, under whose care the patient had now passed, transplanted two bits of skin from the arm on to the raw surface, and fastened them down with isinglass plaster. Six days later, the plaster being removed, this note was made—

Sept. 13.—One bit is firmly united, and is increased to nearly double its size. With the aid of a magnifying-glass, a fine blue line is seen surrounding it, having the same appearance as that of the edge of a healing ulcer. The other piece looks dead, the plaster having fallen off during one of the dressings a day or two ago. The wound is now dressed with a sulphate of copper lotion, as the granulations are very protuberant.

17th.—The piece on the left side is still increasing; the portion of cutis removed is of the same size; the growing epithelium around it has the appearance of a light blue areola, about a quarter of an inch in diameter. That on the right side is growing slowly, it not being more than double the size of the original piece.

By Sept. 29 the whole surface was all but healed, but the cancer was returning in it in the form of softish nodules.

The second case was a man, J. C., aged 40, admitted under Mr. Heath's care with old eczema of a severe kind, affecting both legs, accompanied with chronic ulcers. One ulcer was five inches broad, and reached nearly round the left leg in the lower third, slowly healing at its edges. Four pieces were transplanted from the arm, the largest being the size of a split pea. Of these the House-Surgeon affirmed that one increased to the size of a penny in three weeks. The first three bits were grafted on September 7, and the fourth two weeks later. When we saw him again, on October 21, the large ulcer had entirely healed, save for two or three little specks. The experience at this Hospital seems to be that the larger bits are more satisfactory in their results than very small ones.

THE MIDDLESEX HOSPITAL.

Mr. Lawson has treated two cases on this plan. In one—a woman with a large ulcer on the leg—excellent results were obtained with pieces of skin the size of fourpenny-bits. She has now been out of the Hospital some time. The second case, of which the following is a note, has only just been discharged:

J. B., a man, aged 24, had been suffering with ulcers on the legs for three years, the sores sometimes healing over, but they had never been so bad as at the date of admission. On September 22, upon one of these ulcers, which had now assumed the appearance of a healthily granulating sore, two and a half inches square, Mr. Lawson grafted a bit of skin nearly as large as a sixpence, taken from the arm. During the first week the fate of the bit seemed uncertain, but by the seventh day it was clearly living, and more vascular-looking than before, and it thenceforward continued to spread rapidly. When we saw the man again, on October 18, the ulcer had completely healed, but the transplanted skin was readily discernible as a slightly elevated island of natural-looking integument in the midst of a surface of glazed cicatricial tissue.

Mr. Arnott has also had three cases of this kind at the same Hospital. The first was one of special interest, as the nature of the case made it desirable to obtain as natural and healthy tissue as possible in the cicatrix.

K. J., a good-looking, healthy girl, aged 22, was admitted on September 13, with keloid disease of the skin, reaching from the middle line of the throat across the right side of the neck. The painful and unsightly nodules had grown in the substance of the scar, resulting from a severe burn received five months previously. On September 14 Mr. Arnott excised the diseased portion, dissecting wide of the nodules, and so necessarily removing much skin. An attempt to procure adhesion of the edges, so as to leave a linear cicatrix, having failed, Mr. Arnott waited for two weeks until the wound was healthily granulating, and then, on September 28, grafted two bits of skin, each larger than a split pea, taken from inside the arm, and secured them in the usual manner with transparent plaster. Owing to the difficulty of keeping the part at rest, the plaster was much disturbed, and one of the pieces slipped to the edge of the wound, where it adhered, and speedily became incorporated in the healing margin, the other keeping its position and growing nicely. When the favourable issue of the first trial was clear, Mr. Arnott transplanted two more bits in like manner, and the patient being more successful in keeping the neck still, both of these answered admirably. By October 20 the surface was almost entirely covered over with natural supple cicatricial tissue, in which no trace of morbid thickening was perceptible, the grafted bits being here, too, still clearly visible.

The second case was that of a man, F. P., aged 28, admitted October 11, with a very large sloughing ulcer inside the lower third of each leg. Each ulcer was about the size of the man's open hand, and both were equally foul and unhealthy-looking. Both sores were poulticed, the man kept in bed with legs raised, a mild lotion substituted for the poultice on the third day, and on October 15 Mr. Arnott grafted three small bits of skin from the arm on to the centre of the ulcer on the left leg. These having become fixed, and showing evidence of growth, on October 19 three more were put on the same ulcer. These also took firm hold, and the ulcer is now healing rapidly. The corresponding sore on the opposite limb is being dressed in the same way, but without any grafting being practised upon it, so that the gain in time by the new method may be more clearly ascertained.

The third case is one in which Mr. Arnott removed a large lipomatous tumour from a man's loin. The wound took on an unhealthy action at first, and a portion of the skin sloughing, a wide gap nearly ten inches long was left in the side. After this surface was covered with florid granulations, on October 21 Mr. Arnott removed a piece of skin from the side of the chest, nearly an inch long and a third as wide, and placed it in the centre of the surface, where it seems likely to grow as well as the smaller pieces that have been employed.

CHARING-CROSS HOSPITAL.

Mr. Bellamy has employed this mode of treatment on several occasions for the healing of old ulcers amongst his out-patients. In almost all the cases which have again come under his observation, the little piece of skin has "taken;" in others, the patients have either removed the dressing, or have applied remedies of their own, and so destroyed the graft. Mr. Bellamy generally waited until he had a tolerably healthy surface to deal with before transplanting; but, although he considers this very desirable where it may be done, yet he has had some cases in which the small graft adhered and grew, in ulcers looking far from healthy. He has always removed very small portions of skin as grafts.

Mr. Bellamy has only once employed the method on an in-patient, an example of "workhouse ulcer," in which there was also a syphilitic taint.

The patient was a man, aged 27, sallow and cachectic-looking, and with a history of constitutional syphilis. He had long been troubled with what he had been told was a varicose ulcer, and there were large dilated veins in the neighbourhood of the sore. With rest in bed, and appropriate treatment, these subsided; and when the sore had been got into a fairly healthy-looking condition, Mr. Bellamy took three bits of skin, each about half the size of a grain of wheat, from the unsensitive skin of the knee, and distributed them over the surface. At the end of a fortnight, one of these bits had spread radially to about the size of a sixpence, and the others had also increased to a less degree, all three appearing to be uniting and inducing contraction towards them of the edges of the wound, which had now assumed an extremely healthy appearance.

GUY'S HOSPITAL.

Mr. Durham has been practising skin-grafting in four cases, and has met with much success; but these are not yet ready to be published in detail, as we believe it is his intention to do when they are completed. His latest trial consists of an important modification of the method, and can perhaps scarcely be termed simple grafting. On October 25, Mr. Durham removed with the knife a large lupoid ulcer from the back of a girl's hand, and then, partially separating four portions of skin from the margin of the wound, he turned these in towards the centre, like the spokes of a wheel, and strapped them in their new position. The portions of skin so treated being not entirely separated, the procedure resembled rather what is so constantly done in plastic operations about the face. Of course, we are not yet able to give the result of this experiment.

*** A method somewhat similar to this was long ago tried by Professor Frank Hamilton, of New York. He separated a portion of skin on one leg, and applied it, yet adhering, to an ulcer on the other, maintaining the two legs in close apposition until the skin had taken root in its new soil. Of course, the cramped position the practice entailed militated against the success of the operation. As Mr. Durham's

practice is based on one system of rhinoplasty, so is Dr. Hamilten's on the other.—Ed. *M. T. and G.*

SEAMEN'S HOSPITAL, GREENWICH.

Mr. Johnson Smith, Surgeon to the Hospital, reports the following cases:—

Case 1.—J. V., aged 52, a corpulent, pallid, and gouty subject, and a brewer's drayman by occupation, was admitted on May 14, with a small lacerated wound in front of the right tibia, associated with much bruising of the surrounding soft parts. On the second day after admission the integument of the injured leg became acutely inflamed, and the subcutaneous connective tissue swollen and infiltrated with fluid. These symptoms were followed by sloughing, which commenced at the seat of the wound and then spread slowly along the inner and posterior surfaces of the limb, destroying in its progress both integument and subcutaneous tissue, and undermining the tendo-Achillis. At the commencement of July the whole of the slough had been thrown off, and the leg presented a large, healthy-looking, and granulating ulcer, which measured five inches from above downward, and four and a half inches from side to side. On July 10 a portion of epidermis, about one-eighth of an inch in diameter, was taken from the integument of the dorsum of the foot, and implanted in a slight incision made in the centre of the large ulcer. On the third day no traces of the graft could be observed, and it was thought that the thin scale of epidermis had been carried away in the purulent discharge. On the seventh day, however, there was a marked depression at the seat of the operation, and around this a pinkish zone of commencing cicatrisation. At the end of the third week there could be seen in this region an islet of soft and perfectly sound skin, quite circular, and of the size of a sixpence. On July 24 two fresh transplantations were made of minute pieces of epidermis. These were simply placed upon the surface of the ulcer, and covered by pieces of strapping. Each of these was surrounded at the end of the week by increasing margins of scar-pellicle. On July 30 a fourth transplantation was made in the upper portion of the ulcer, the lower two-thirds of which had been almost wholly covered over by the union of the three islets proceeding from the three previous grafts. On August 17 the patient was discharged from the Hospital. The whole wound was then covered over by a large scar, soft and elastic, painless, and freely movable over the subjacent soft parts. The exact seat of each transplantation was marked by thickening and elevation of epidermis, surrounded by a distinct fossa in the scar tissue.

Case 2.—J. H., aged 26, was admitted on September 16, 1870, with sores on the right leg. About three months previously he had received a severe injury of the limb, which was followed by erysipelas and extensive destruction of soft parts. When admitted he presented, in front of the right leg and occupying the lower half of this surface, a healthy and ruddy ulcer, measuring four and a half inches from above downwards, and five and a half inches from side to side. There was also a smaller ulcer on the posterior surface of the limb. From the date of admission to October 15, ten minute pieces of epidermis were placed upon the surface of the larger sore. Of these transplantations, eight succeeded, and resulted in the formation of rapidly growing islets of sound scar-tissue. Two grafts were taken from the skin of an African; these soon lost their black tint, and the tint of the pellicles surrounding them was of the usual pink or bluish-pink colour. On October 24, all the islets formed by transplantation had coalesced, forming a large bridge of scar-tissue, extending from the upper to the lower margin of the ulcer, and measuring three inches in length and two in width.

One of the nicest cases we have seen was in the Devon and Exeter Hospital, under the care of Mr. Kempe. The patient was a man, aged 28, who had been in the Hospital since February, with an ulcer of the right leg. This proved obstinate and would not heal, so a small portion of skin was removed from the forearm and ingrafted on the middle of the ulcer. It took admirably, and five weeks after, when we saw the case, it formed an island of healthy skin half an inch in diameter, occupying the centre of the ulcerated surface.

Mr. Lawson Tait also reports to us a successful case of ingraftment of cuticle: he says,—T. S., aged 9, was severely burnt on the chest about the end of December last. A large surface of skin was completely destroyed; and when I saw her first, in May, there remained a raw surface with large flabby granulations. The edges were raised, and though every possible effort had been made by nature to heal the wound by contraction, it still remained the size of the palm of a hand. Every variety of dressing had been tried without any success in diminishing its extent. Mr. G. D. Pollock, of St. George's, was kind enough to make me acquainted with Reverdin's process of ingraftment of cuticle, and on July 5 I transplanted three small pieces, one the size of a split-pea, and two more rather less than half that size. On the 7th the largest of the three was unfortunately removed along with the dressings by the carelessness of the dresser. This piece I carefully examined, and found its under-surface covered by large, soft, nucleated cells, intimately adherent to it, indicating beyond doubt that its vitality had been thoroughly established. On the 10th the sites of the other two ingraftments showed signs of activity, the granulations there being raised above the general surface of the wound, like patches of urticaria, about three-fourths of an inch in diameter. On the 15th, two more ingraftments of minute shreds of cuticle were made, but by the 19th one of them had disappeared, while the other gave decided indications of activity. Up till August 1, the three raised patches showed no signs of drying, but on the 15th minute surfaces of dry cuticle were apparent. After this, the case was placed under the care of my friend, Mr. Lorraine, of Wakefield, who writes to me that the case is progressing most satisfactorily, that the cicatrisation is extending from the three points of ingraftment, and that the wound has much diminished in extent.

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Medical Times and Gazette.

SATURDAY, OCTOBER 29, 1870.

THE AMALGAMATION SCHEME.

In another part of our present number we have given a report of the extraordinary meeting of the Royal Medical and Chirurgical Society, held on last Tuesday evening, in order to receive from the Council of the Society a report on the present state of the scheme for the formation of a Royal Society of Medicine, by the amalgamation of the chief Medical societies of the metropolis. The result of the evening's proceedings, which was no less than the giving up—for the present at least—of a plan which has been under consideration for so many months, and has been so frequently and so earnestly debated, will be a great surprise to most of our readers; and while not a few will certainly receive the news with great and grave regret and disappointment, it will as undoubtedly give considerable satisfaction to many others. The report of the Council simply stated the facts that the basis-scheme of amalgamation had been accepted by three of the bodies invited to join in it—viz., by the Pathological, Clinical, and Epidemiological Societies; but that two others—the Obstetrical Society and the Psychological Association, had declined to accept it. The report contained no suggestion or recommendation from the Council as to what steps the Society should now take in the matter, but left the subject entirely open and

in the hands of the Society. But probably we shall not be greatly mistaken if we surmise that the resolution, formally proposed and seconded, for proceeding with the amalgamation scheme, had emanated from, or been suggested by, the Council, or some part of the Council. The resolution was to the effect that, if the assenting societies continued of the same mind, they should appoint a committee of delegates to obtain a charter for the new Society, and to draw up a code of by-laws. As an amendment to this resolution, it was proposed that the consideration of the subject should be adjourned for a twelvemonth, the main grounds for the amendment being that the scheme had been rejected by some of the bodies to whom it had been proposed, and that in at least two of the assenting societies it had been warmly opposed by considerable and important minorities; and that therefore it had not met with such an amount of acceptance and cordiality as would justify its being proceeded with. It would be idle to consider whether such a complete and abrupt shelving of the matter as this amendment involved would have been carried, for it was—happily, we think—withdrawn in favour of a second amendment, proposed by Mr. Paget and seconded by Dr. Quain, that "the Council be requested to consider whether, while maintaining the charter and constitution of the Royal Medical and Chirurgical Society, it may be possible to obtain a more complete co-operation with the Pathological, Obstetrical, Clinical, and Epidemiological, or other Societies for the promotion of Medical science."

After a very full and prolonged discussion, this amendment was carried by two to one, and then was passed as a substantive motion by a very large majority. Some attempts were made to obtain the adjournment of the debate, but fortunately without success—we say fortunately, for an adjournment would only have led to a reiteration of the statements and arguments of Tuesday evening, and therefore to a mere waste of time. As it was, some of the speakers spent valuable time in going again into the so-often-settled question of whether any amalgamation of the societies was desirable, instead of keeping to the subject before the meeting, which was whether or no, under the circumstances, it was desirable to proceed with the proposed scheme of amalgamation. But this question did receive full and ample consideration, and we think that the resolution arrived at is a wise, though a disappointing one. We can fully sympathise with those who regret the fading away, for an indefinite period, of the fair vision of a stately central and concentrated Society of Medical Science; and those who have so freely and willingly, and for so long, given time and thought to the elaboration of the amalgamation scheme may well feel some soreness mingled with the disappointment of their hopes. But the opposition to the scheme has been increasing rather than diminishing in strength; and there are not a few who, while they would be willing to see the societies to which they belong sacrificed to form one large, liberally-constituted, catholic Academy or Society of Medicine, would feel great repugnance to a change which could only result in the formation of an imperfect and truncated new Society. If the amalgamation scheme were proceeded with under existing circumstances, the new Society must be very incomplete—some departments of Medical science being unrepresented in it—or it must have formed sections in rivalry with, and at the expense of, existing societies outside. For example, the great department of obstetrical Medicine is well represented and vigorously worked by the Obstetrical Society, which is remarkably popular and flourishing; but that Society has not seen its way to the acceptance of the amalgamation scheme. The new Society must therefore have been formed without any obstetrical section, or have founded such a section as a rival of the existing Society, and then either the section would have proved a failure, or it would have been a feeble section, and whatever strength it acquired would be acquired at the expense of the Society; the result being a weakened Obstetrical Society, and a weak obstetrical section of the Royal Society of Medicine in the place of a strong and flourishing Obstetrical Society. No one could contemplate such a result with anything like satisfaction. The time has evidently not yet come for the formation of such a great, central, and powerful society as we all hope may some day arise amongst us; and it is worthy of note, as a sign of the feeling on the subject, that the successful amendment was proposed and seconded by the Presidents of the two most important of the assenting Societies. We do not mean to suggest that Mr. Paget and Dr. Quain spoke or acted in at all an official capacity, but we think that it is a fact not without significance that the two chief officers of the Pathological and Clinical Societies were opposed to proceeding with the amalgamation scheme under existing circumstances.

It may be fairly hoped that the resolution finally arrived at may lead to the discovery of some scheme of co-operation and concentration of strength for working purposes among our societies; and at the least it will have the good result of keeping the question of material aid and co-working before the Profession, while the original amendment would have shelved the whole subject. And we are sure that the time and labour spent in the amalgamation scheme has not been wasted. The Profession owe much to the gentlemen who have worked so well at it, and their labours will doubtless have greatly prepared the way for the formation of a really broad and Catholic Society in the future, and will in good time bear valuable fruit. In the meanwhile we certainly are not sorry to have still among us the time-honoured and work-honoured Medical and Chirurgical Society; and we trust that all the stir and discussion caused by the amalgamation scheme may have the effect of exciting the Fellows of that renowned Society to new and persistent labours, by which its high reputation may be worthily sustained and increased.

HOUSE VENTILATION AND ISOLATION OF SCARLET FEVER.

From every side we hear the advice—to "isolate" our patients the moment that scarlet or any other infectious fever appears in a house. The most effectual way of doing this is to remove the patient to a Hospital or other sick-house, to fumigate his room and its contents with burning brimstone, and to have all linen and woollen articles washed or baked, according to their nature, and have the drains, sinks, privies, ashpits, and the like well drenched with carbolic acid. Sometimes, instead of removing the patient, the other members of the family are removed, not to come back till the patient is well, and the house thoroughly disinfected. But there are cases innumerable in which neither of these can be done. There is no supply of private Hospitals or lodgings to which a scarlet fever child with a nurse can be sent off at a minute's notice, and there are many families which it is simply impossible to remove, for financial reasons; so that in a large, middle-class stratum—too high for eleemosynary institutions, and not rich enough to afford private lodgings—the patient must be treated at home, and the rest of the family run the gauntlet as they best may.

These are the cases in which isolation within the house is most important; and it need not be said that it is not mere isolation of the patient's body, but of all the volatile and impalpable matters emanating from the skin, and especially from the throat and alvine excretions, that is the desideratum. If the patient's breath, the fumes of his evacuations, and the dust from his skin are carried into the house, to be inhaled by the other members of the family, then the isolation is no isolation at all.

It is well worth while, on general grounds, for every *paterfamilias* to consider where the air comes from which supplies his house, and how it is distributed.

Some knowledge of the sort is often revealed when the first attempt is made to isolate a scarlet fever patient. Orders are given, for instance, that a good fire shall be lighted in the

top back attic, and the patient removed there at once. Then the discovery may be made that the fire won't burn, and that all the smoke blows out into the room, from which it comes down the staircase, and is smelled all over the house. Here it is clear that the chimney of this neglected back attic, with its "rusty grate, unconscious of a fire" for many a day, has been quietly serving as an air-feeder for the house, and that it will require some management to prevent the scarlet fever fumes from following the course of the smoke. If the weather were warm, and the attic window opened, and there were no fire, they would be sure to be diffused over the house, unless carefully intercepted.

If a little gas be allowed to escape on the top floor, it will be almost surely detected at the bottom of the house. The other day the writer was invited to witness an operation of ovariotomy. On arriving rather late, whilst the operation was in progress, he perceived the odour of chloroform strongly, on the staircase landing near the patient's bedroom door, although that door had not been opened since the operation began. This shows that the air from the bedroom entered the house through the chinks around the bedroom door, and that if a scarlet fever patient had been in the room, the fumes of the fever would have been disseminated in the same way that the chloroform was.

The simple conclusion is, that it is not enough to put a patient into a room by himself, unless means are taken to hinder the air of that room from mixing with the general air-supply of the house. This may be ensured by hanging up a sheet inside the room door, to hinder the escape of air; and, secondly, by taking care to keep, night and day, some staircase window or skylight open, so that air may enter freely.

It is not only, however, during the prevalence of fever that some attention to the air-supply of a house is advisable. Let anyone ask himself the question, as he sits by a blazing drawing-room fire some evening, with shutters and curtains closed, whence comes the air which feeds the fire? The answer will not be a satisfactory one. Part comes down the chimneys of any rooms in which there are no fires, in the form of down-draught, impregnated with soot, even if it does not bring with it the return-smoke that has just escaped from some other chimney. Part comes in through the front door keyhole, or the chink beneath the door; part filters in through crannies of walls or floors, where, perchance, generations of rats and mice have left musty accumulations which give that peculiar flavour to the air of old wainscoted houses. But, worse still, under most houses there is a series of tubes for carrying away water, some of it hot, the rest charged with matters giving off putrescent gases. The orifices of these tubes are to be found in the "nursery sink," in the "housemaid's closet," where she empties her slops, in the bath-room and dressing-room, and in the butler's pantry and scullery sink. Any one of these orifices may give entrance to a current of fetid air, which may engender sickness or spread it. To avoid these nauseous sources of air-supply, the proper plan, when it can be done, is to warm the body of the house or the passages, and all the vestibules, staircases, etc., and then to have a free opening to the outer air. If air can enter by an open window, it will not squeeze through narrow chinks and crannies.

Yet it must ever be remembered, that all the conditions of ventilation in a house—the places by which air enters and the course of the internal currents—are altered by a change of wind from E. to S.W. An attic staircase which has a draught down it in an east wind, has a strong upward draught in a west wind; and the chimneys which send air down in the one, draw it up in the other.

Lastly, we must mention with approval Savory and Moore's lamps for slow volatilisation of disinfectants outside the sick-room door. Not only do they show if a current sets from the room towards the house, but they make it less dangerous should it happen.

THE WEEK.

TOPICS OF THE DAY.

The Council of the Royal College of Surgeons have elected Mr. Hancock, Mr. Le Gros Clark, and Mr Savory of St. Bartholomew's, to fill the three seats in the Court of Examiners vacant by the retirement of Sir William Fergusson, Mr. Quain, and (at the expiration of his term of office) of Mr. Skey. The election of Mr. Savory to an Examinership is evidence that the Council is willing to recruit the Court of Examiners from distinguished members of the general body of Fellows. The fact, however, that as yet the examiners in Anatomy and Physiology are not elected as a separate body from the Examiners in Surgery, affords good and sufficient reason why the Council should not look in every instance beyond its own rank for gentlemen to conduct the examinations. The Council of the College, elected as it is by the Fellows, must be composed in rotation of the best practical Surgeons of the day. In the present instance it would have been most unjust to overlook the claims of such Surgeons as Messrs. Hancock and Le Gros Clark.

We believe we are expressing the opinion of those who are best informed on Medical politics when we state that there is not the slightest chance of any Medical Bill being passed by the Legislature in the ensuing session of Parliament. We may expect a sanitary measure of considerable proportions, and we hope to welcome a Bill for remodelling the Poor-law Medical Service in England and Wales; and with this instalment of Medical reform we believe we must rest content—as far, at least, as the agency of the Government and Parliament are concerned. But, for this very reason, it behoves the Medical Profession to set about some internal reforms which are much needed, and which the Profession we hold is quite competent to undertake itself. The chief of these reforms is probably the consolidation of the Boards which license for general practice. We appeal to the authorities of the Royal College of Surgeons, the Royal College of Physicians, and the Apothecaries' Society, to once more endeavour to arrive at some mutual good understanding on this point. The former negotiations were brought to a close by, as we think, the unreasonable pretensions of the Royal College of Physicians, which, ignoring the good work of examining in the art and science of Medicine that, during the last fifty-five years, has been accomplished by the Apothecaries' Society, wished to rob the Society and all its existing Licentiates of their prestige by reducing the examining functions of the Society to the nomination of examiners in Chemistry, Botany, Materia Medica, and Midwifery. This, of course, the Apothecaries' Society could not accept, and the negotiations were in consequence broken off. We hope now, however, that wiser and calmer councils will prevail. It appears to us that the College of Surgeons may reasonably appeal to the contending bodies, and, from their neutral position, proffer a basis of negotiation which may be acceptable to both. Of this we are certain, that it will be for the benefit of the general Practitioner and of the public that a conjoint Examining Board should be formed, but that any Board formed without the hearty co-operation of the three English corporations must end in failure.

The authorities of Guy's Hospital have taken the wise course of publicly announcing that, for the future, one of the conditions of admission to the Hospital shall be that, in case of a patient's death, a pathological examination of the body shall be made. We presume there is nothing in the original constitution of the Hospital which can limit the right of the governors to impose conditions under which patients are to be received. If this be the case, the public announcement that the pathological examination of patients dying in the Hospital is, except in special cases, a condition of admission must put a stop, as far as Guy's Hospital is concerned, to the

present outcry, and to any further legal proceedings. The course taken by the authorities of Guy's is virtually that which we recommended several weeks ago, and we presume it will be followed by St. Thomas's, and other Hospitals which are used for pathological teaching. The following is a copy of the placard which has been posted at Guy's :—

"NOTICE TO FRIENDS AND RELATIVES OF DECEASED PATIENTS.

"*Extract from the Minutes of the Court of Committees of Governors of Guy's Hospital, held September* 7, 1870.

"The governors reserve to themselves, in the interest of the public and as one of the conditions of admission to the Hospital, the right of causing a post-mortem examination to be made of the body of every patient who dies within the Hospital, by the pathologist or his representative, for the purpose of accurately determining the causes of death.

"In the event of the friends or nearest relatives being opposed to such an examination, they are to communicate their wishes to the superintendent, who will submit their objections to the Medical officer who had charge of the deceased patient, and if he is of opinion that there is no urgent need for a post-mortem examination, the superintendent is authorised to dispense with it. "JNO. CHAS. STEELE, Superintendent.

"Guy's Hospital, October 12, 1870."

Approving as we do of the course taken by the Hospital authorities, we must again express our regret that the question was ever raised. We believe that in the vast majority of cases the consent of friends or representatives could be obtained. As it is, the present termination of the dispute, although the one which commends itself most to our judgment, is likely to leave a disagreeable impression on the minds of a class of persons for whom the charities are specially intended.

Colonel Loyd Lindsay, in his report published in Thursday's *Times*, gives a very different estimate of the "civilised manner" in which the Germans conduct the war, at least in reference to their care of the sick and wounded, from that which has been generally circulated. He writes :—

"There is no provision whatever for the extra care and comfort of the sick and wounded. No tents, no Hospital diet, no blankets, no Hospital suits of clothing, no slippers, no underclothing. The old blood-stained uniforms are worn in the Hospitals, and again when discharged from them. The men walk about with naked feet and scanty clothes; their rations are issued as usual, and are made the most of."

At the same time, these civilised warriors, who take so little care of their own sufferers on the battle-field, are in no humour to show much gratitude to those who have relieved them, to some extent, of the trouble, or to tolerate that a like amount of help should be given to the French. On this subject Mr. Russell, the *Times* correspondent—at least an unprejudiced witness—writes :—

"Manner has as much to do with the estimation and the opinion of the world as qualities of great depth and substance. Why should some Prussians show themselves to be very jealous, unreasonable, ungracious, because Colonel Lindsay went into Paris to give £20,000 for charitable purposes, after he had given the same amount to the Germans in Versailles? One gentleman wanted the whole £40,000 to be handed over to him and his, to be laid out as they pleased, and seemed not to understand the force of the objection that the fund was raised for the benefit of the sick and wounded of the French and German armies equally. A young English Surgeon who has been working away outside Metz at the Hospitals, and who was recommended by Prince Pless to Dr. Chalons, chief of the Hospital at the Palace here, was treated to an angry invective by that eminent Surgeon against England for giving aid to the French Hospitals, and was forced to give up his benevolent intentions. Now, Dr. Chalons is a very able man, I hear, and I do not see why an able Doctor should not be a just and sensible man; but it would be pitiable if the Germans generally shared these sentiments. On the whole, I have arrived at the conclusion—I express it with regret—that the idea of a national subscription for aid to sick and wounded on both sides is not politic, and may be mischievous. It tends to make war less onerous on those who carry it on. If there be any gratitude excited, it is among the vanquished. The offer of money is regarded as if it were England's panacea for all shortcomings, and as a very poor plea in mitigation of punishment for her neutrality. It is very sad that it should be so, but the fact to my mind is patent that the dangers of a misunderstanding caused by the mode of applying such a fund are far greater than the benefits conferred by the application. The agents of such a fund cannot please both sides, and they would not be human beings if they did not look with some favour on those who receive them most graciously and who have the best manners. I could give many illustrations of my meaning. The fact is all the more to be deplored in that the distribution of such large sums has been attended with immense benefit to thousands. But there is a deep-rooted dislike to amateurs, and the odium which certain lawless proceedings of *soi-disant* Red Cross Knights and the abuses of the badge have excited, is visited on the excellent men who have worked so hard and done such good service to humanity."

We are sorry to notice that one of the officers who perished in the steamer *Cambria* was Dr. J. W. Flemington, the Surgeon of the ship.

Another case of baby-farming is being investigated by the police magistrate at Lambeth. A woman named Mary Hall is charged with conspiring with other persons to deceive and cheat one George James Loe, by bringing a female child to his house and representing it to be his, and with unlawfully exposing the child. The evidence proved that Mr. Loe cohabited with a person who was not his wife, and that this person had announced herself to be pregnant. Mr. Loe engaged a nurse and a Doctor—Dr. Farr, of West-square, Southwark. It appears that a similar attempt to deceive Mr. Loe had been made by the prisoner and his *quasi* wife, who was known as Annie Augusta, several years before. Our readers, however, will care little for the circumstances of the case; but Dr. Farr's evidence, as a specimen of the very transparent tricks which people may endeavour to play on a Doctor, is curious :—

"Dr. George Frederick Farr, of 20, West-square, Southwark, said he was engaged to attend Annie Augusta on the occasion of her supposed confinement, about three years ago. He then saw the prisoner, who said everything was going on well, and showed him a female child. It was being brought up by hand, and Annie Augusta exclaimed, 'I shall not nurse it, as it will be such a trouble and tie upon me.' Witness attended her up to April, when the child died. About six months ago she informed him that she was three months *enceinte*, and on Saturday last he was sent for to attend her. On going up stairs he found the prisoner there and Annie Augusta in bed. The prisoner said, 'Well, it's all over.' On going to the side of the bed to speak to Annie Augusta, the latter looked up and said, 'Oh, is it my Doctor? I feel so very ill. I'm in dreadful pain.' Witness took hold of her hand and felt her pulse, which, instead of being excited, was quiet and steady. He wanted to make a further examination to ascertain the cause of pain. The woman upon that drew herself away and said, 'Don't touch me.' He had then his suspicion that all was not right, and on looking round saw the room was 'beautifully made up' for such an occasion, with napkins, etc., strewn about the floor and bed. The prisoner proceeded to bandage Annie Augusta, who made a noise as if in extreme pain. She then collected the napkins and left the room, upon which he locked the door, and, addressing Annie Augusta, said, 'I am going to speak seriously to you.' She said, 'What do you mean?' He replied, 'The presence of that woman (the prisoner) has given me a strong suspicion.' She said, 'Oh dear, Doctor; can you be so cruel? Are you going to drive me mad with the very idea of it?' He said it was not his wish to give any pain, but he must be satisfied that she had really given birth to a child. He then, after some difficulty, succeeded in making an examination, which proved that she had not been delivered. The prisoner meanwhile made several attempts to obtain admission to the room. He then saw the infant, which at first was by the side of Annie Augusta in bed. It had been washed, and was in the arms of the prisoner."

In addition, Dr. Farr said that the child was under the influence of a narcotic when he saw it. It appeared to be a few hours old. The police have been for some time watching the prisoner's house. It was known that women had been confined there, but no infants had been seen to come out.

EXCISION OF THE KNEE-JOINT IN CONSEQUENCE OF GUNSHOT INJURIES.—DR. THOMPSON'S CASE.

SINCE the appearance of the article on this subject in our number of the 15th inst., we have been reminded by a friend of a successful case of this operation having been reported in the *Dublin Quarterly Journal of Medical Science* for August, 1868, by Dr. Henry Thompson, Surgeon to the Tyrone County Infirmary, Omagh. We give a short abstract of the case, as it is most interesting, and strengthens our opinion that under the favourable circumstances of youth, good constitution, the possibility of perfect rest, and the existence of first-rate Hospital appliances and hygienic conditions, excision of the knee-joint for gunshot injury will be found to deserve a higher place than it has yet earned among the resources of conservative Surgery.

The patient, a healthy man of 27, was wounded on the morning of February 29, 1868, by a charge of shot and slugs, which entered the right knee-joint on the outside of the ligamentum patellæ, and passed out in the mesial line, immediately above that bone. At the moment of the discharge of the gun, the man had thrown himself on his back on a bed, with his knees bent, which accounts for the peculiar direction of the wound. The patella was shivered into innumerable fragments, and the skin over it, though uninjured, was scorched and blackened by the powder. There was extensive injury of the condyles of the femur, and through the orifice of exit a sharp spiculum of shattered patella protruded about an inch. The operation was performed on the following morning, a straight semi-lunar incision being employed. The charge was found to have struck the femur in the fossa, between the condyles, and had scooped out a piece about the size of a walnut, which was entirely detached. From the upper end of the cavity so formed a fissure extended outwards, completely separating the outer condyle from the shaft, but without displacement, as the periosteum was entire; the fissure went obliquely upwards, and ended at the back of the bone, above the condyles. The inner condyle remained unseparated.

Dr. Thompson cut through the bone, about half an inch below the upper end of the fissure, removing about two and a half inches of the femur, and sawed off the thinnest possible slice from the head of the tibia. On bringing together the sawn surfaces, that of the tibia considerably exceeded that of the femur. The *débris* of the patella, and all the shot, slugs, etc., which could be discovered, were removed. The edges of the wound were brought together by three points of suture, adhesive plaster, pledgets of lint, and a many-tailed bandage, and the limb was placed in a well-padded box, with folding sides. Liberal diet and wine were administered, and the progress of the case was on the whole most satisfactory. On April 12 the patient could move the whole limb in one piece, rotating the foot from side to side. On May 10 the limb was taken out of its case, and seemed perfectly firm, resisting any attempts at motion. On May 15 the limb is reported as not more than two inches shorter than the other. On July 1 the man could go about with a crutch and stick, and could bear sufficient weight on the limb to enable him to take a step with the other; and it was found that "exactly one inch and a half" was all that was required as an addition to the height of the heel of his boot, to compensate the deficiency in length of the limb.

Comparing the operation of excision of the knee-joint with amputation, either above or below the joint, Dr. Thompson is impressed with the conviction that the *shock* is less in resection than in amputation, and this he attributes to the circumstance of no large nerve being divided in the former operation.

Dr. Thompson, in his own practice, has treated two gunshot wounds of the knee-joint. In the first, the ball passed through from behind forwards. The young man recovered without operation, after a trifling amount of exfoliation, with a stiff limb, but after an illness so protracted and dangerous that Dr. Thompson determined on the propriety of excision in any future case. The second was the case of which the abstract is given above. Between these two cases another occurred under Dr. Thompson's notice, but not under his care, in which no operation was performed, and death resulted. The bullet in this case had lodged in one of the condyles.

Dr. Thompson's successful case reduces the mortality rate in recorded cases of this operation given in our former article from 77·77 to 73·68 per cent., being still about 10 per cent. greater than that following amputation of the thigh in military practice.

ANTI-CONTAGIOUS DISEASES ACT AT COLCHESTER.

MR. BAXTER LANGLEY, as the avowed opponent of the Contagious Diseases Act, presented himself on Monday night to the constituency of Colchester as a candidate for the representation of that town. He was, however, badly received, and could not obtain a hearing. It is probable that, under these circumstances, he will retire from the field.

HEALTH OF ST. MARYLEBONE—PREVENTION OF FEVER.

DR. WHITMORE, in his last monthly report, states that the returns of death for the last week are lower than for any week in this year. The most painfully marked feature in the mortality returns of the last two months is the very large number of deaths from scarlet fever. This very formidable and lingering epidemic has now raged for the last fifteen or eighteen months, and with but little fluctuation in regard to its fatality. At the present time, Dr. Whitmore regrets to say that its tendency is rather to increase than diminish, and, as regards its type, he observes an undoubted increase in the number of cases of the malignant kind. Dr. Whitmore observes—

"The system which I adopted in the parish in the autumn of last year, of disinfecting every house in which I could learn that the disease had broken out, is still continued by Mr. Lightfoot, and I have good reason for believing that, to some extent, it has been efficacious in checking the spread of the contagion; but, when it is considered how many and varied are the ways by which scarlet fever is disseminated, the apathetic disregard amongst the poorer classes, generally, of even the simplest measures of prevention, and the difficulties which, in many cases, would arise, were anything like efficient measures attempted, it seems almost hopeless to expect that a satisfactory reduction in its present rate of mortality can be effected, except by legislative enactments, and those, too, of an apparently harsh and unfeeling nature.

"It has not unfrequently come within my personal knowledge that some Medical men (and I believe there are but few such), when called in to attend cases of scarlet and typhoid fever, are not sufficiently earnest in impressing upon the mother of the sick child the great importance of isolation in such cases, nor do they trouble themselves to give sufficiently explicit instructions as to the proper use of disinfectants. My inspector frequently finds, on visiting a child suffering from fever of any kind, that nothing whatever has been done to prevent other persons in the house from catching the disease; and on remonstrating with the parent, she will probably tell him that the doctor might have told her to use chloride of lime, but that was all.

"Now, I venture to suggest that, in the treatment of all infectious diseases, the Medical attendant should have in view a twofold object—prevention as well as cure. His primary duty should be to place, so to speak, a *cordon sanitaire* around his patient, beyond which the infectious germs cannot pass, and having done that, apply his talents to the treatment of the disease; but the mere sprinkling of a little carbolic acid or chloride of lime about the sick chamber will not accomplish the object of thorough disinfection—it requires to be more skilfully and carefully done; and, inasmuch as the poorer classes generally are altogether ignorant on such matters, and very hard to teach, it becomes the duty of the Medical attendant either to do it himself or intrust the work to competent hands."

FROM ABROAD.—CASES OF THE BLOOD IN VARIOLA—CURIOUS CASE OF VACCINIA, FOLLOWED BY VARIOLA—ADVANTAGES OF CONICAL STUMPS.

M. BROUARDEL, at one of the last meetings of the *Société*

Médicale des Hôpitaux de Paris, of which we have seen an account, read an interesting paper on the "Analysis of the Gases of the Blood in Variola." During the epidemic, about 500 cases came under his care at the Charité; and those which proved fatal, died, in his opinion, in one of two manners. Some, the subjects of confluent variola, died just as patients do after large burns, with the principal internal viscera, the brain, cord, lungs, kidneys, etc., in a state of more or less intense congestion; the others died—these being especially the subjects of hæmorrhagic variola—exhibiting phenomena resembling those in death from asphyxia by carbon. M. Brouardel, believing that in these latter cases characters would be probably found in the blood analogous to those observed in poisoning by carbonic oxide (Claude Bernard having shown that in this the globules are no longer capable of absorbing oxygen), investigated the condition of this fluid in several cases by the aid of the apparatus employed by M. Nestor Gréhaut, the assistant of M. Claude Bernard. As each examination of the blood required three hours, he was only able to investigate the circumstance in thirty instances, employing 50 cubic centimetres of blood. He exhibits the result in an extreme type, intending, subsequently, to publish the details of the other examinations which exhibit intermediate variations.

	Blood of a patient without fever, eating well, and having some tubercles at the summit of the lung.	Coherent variola on the 7th day. Recovery.	Hæmorrhagic variola. Death 5 hours after venesection.	Hæmorrhagic variola. Death 48 hours after venesection.
	cc.	cc.	cc.	cc.
Total gases extracted	36·8	29·4	17·1	16·1
Carbonic acid . .	16·4	17·8	5·5	5·0
Oxygen . . .	8·8	8·0	7·6	4·4
Azote . . .	11·5	3·7	4·1	6·8

From these investigations, it may be concluded that the gases contained in the blood of subjects of hæmorrhagic variola are much less abundant than in the normal state, and consequently that the nutritive exchange is far less active. It is, however, to be observed that this diminution in the intensity of the nutritive phenomena coexists with a very notable elevation of temperature. In hæmorrhagic variola, the temperature taken in the vagina or rectum often reaches 41° C. M. Brouardel thus explains the coincidence of diminished oxidation and increased temperature:—

"In hæmorrhagic variola, the parenchymatous organs—liver, kidneys, testicles, thyroid body, muscles, and brain—undergo acute fatty degeneration, a steatosis being established in four or five days, which in intensity can only be compared with that found after poisoning by phosphorus. An acute transformation of quaternary or ternary substances has, therefore, taken place, and such chemical substitution, like all chemical action, is accompanied by calorific phenomena. Is there development or absorption of calorie in these modifications? My chemical knowledge is not sufficient to determine this chemically; but I may verify physiologically the value of the hypothesis. For this, all the investigations I have made will have to be repeated on dogs poisoned by phosphorus, pyrogallic acid, etc. It is already known that these poisonings entail fatty degeneration, and it will be necessary to watch the thermometrical modifications. I may observe that the poisons which, thus far, are known to lead to the most rapid fatty degeneration—such as phosphorus and pyrogallic acid—possess great avidity for oxygen.

"I have examined the gases of the blood in some other diseases also accompanied by steatosis, and may cite here an analysis made in a case of hæmorrhagic scarlatina proving fatal four hours afterwards. In this I obtained: total volume of gases, 22·2 cc.; carbonic acid, 9·6; oxygen, 7·5; azote, 5·1. In a case of delirium tremens which recovered, I obtained: total volume of gases, 24·5 cc.; carbonic acid, 11·2; oxygen, 10·2; azote 2.5. Alcohol is a steatogenic poison, but it evidently acts with less rapidity. Similar researches should be made in cases of icterus, as the bile, being by its acids steatogenous, may give rise to analogous modifications."

At the same meeting, M. Brouardel related an interesting case of vaccinia and variola occurring in twins. The twins were vaccinated on July 6, the day of their birth, the one having nine and the other eight punctures, all of which were followed by regular vaccine pustules, from which other children were vaccinated eight days afterwards. On the 19th —*i.e.*, the fourteenth of their birth — both the infants presented reddish spots, and the next day they were refused at the *crèche* as subjects of variola. On the 21st, they were admitted to the *Charité*, both having varioloid, which terminated favourably in ten days, both infants having, also, the genuine vaccinal scabs. Thus, both these children exhibited variola on the fourteenth day after their vaccination, which succeeded perfectly; and if we admit that the variola was preceded by eruptive fever, which, though unperceived, lasted forty-eight hours, the variola must have appeared on the eleventh or twelfth day after birth. Was the contagion conveyed through the medium of the mother, or was each child separately infected? The mother, it is true, was not the subject of variola, but the children were affected at the same time, eleven or twelve days after birth—a simultaneousness which is at least singular. The mother says that she had not been in contact with subjects of small-pox, and it did not prevail in the ward of the Hospital in which she was delivered. The *interne*, however, who had charge of her, had small-pox patients in another ward under his care.

Professor Sédillot, of Strasburg, in a note addressed to the Brussels Academy of Sciences, from the volunteer ambulance at Haguenau, August 25, makes the following observations on stumps after amputation:—

"1. The precept universally followed, of dividing the bone at a higher level than the soft parts, leads to disastrous results, especially in amputation of the thigh. More than 200 amputations, of which fifteen were performed on the same day (which, however, is a small number if we admit that, in an ambulance properly organised, a single operator may easily execute 100 amputations in less than ten hours), leave no doubt as to the frightful mortality which attends the present methods. 2. The bones, placed in the midst of the soft parts, wound, irritate, inflame, ulcerate, and mortify them, rendering repeated, prolonged, and painful dressings necessary, and giving rise to hæmorrhages and fatal infection. The soft parts, having no support, become tumefied and remain infiltrated with poisonous fluids when the amputations are practised during the inflammatory stage, retain in the anfractuosities and the cavity of the stump pus and putrid sanies, present an obstacle to the search for vessels in case of bleeding, and become, as regards the bones, a source of fatal complication. 3. In spite of the high authority of Petit, Louis, Desault, Boyer, Dupuytren, and all contemporary Surgeons, their precepts and examples should be rejected as regards amputations performed during war, and the bones should be allowed to project beyond the soft parts, so as to obtain the conical stump, concerning which so many imaginary fears have been excited. The bone becomes a good support for the stump, and no longer causes any irritation; the liquids flow out freely, hæmorrhages are easily arrested, and purulent or putrid infection is in part prevented. The dressings, which may now be very simple, may be deferred or interrupted without serious inconvenience, while the transport of the patients is attended with little pain and few accidents. 4. When the advanced cicatrisation has rendered all fear of hæmorrhage or infection superfluous, the projecting portion of the bone may be excised, after having detached and turned back its periosteal covering. 5. This method, the principal indications for which are thus summarily stated, and which the circular operation renders of easy application, seems to me, under present circumstances, as capable of saving thousands of the wounded."

The cinchona cultivation in the English hill settlement at Darjeeling, in the Himalayas, has succeeded so well that 5000 lb. of bark were sent to London last year from trees planted in 1862 on one plantation alone.

Electro-puncture in Aneurism of the Aorta.—The September numbers of the *Gazetta Medica Italiana-Lombardia* contain four additional cases related by Drs. De Cristoforis and Maehiavelli, in which electro-acupuncture was put in force for the relief of aneurism of the arch of the aorta. They are related in considerable detail, and are of great interest, showing, at least, that the practice is an inoffensive one, and gives the patient relief from great suffering.

DR. RICHARDSON ON THE MEDICAL ASPECTS OF THE GERM THEORY.

A crowded meeting of Fellows of the Medical Society of London, and of many visitors, testified on Monday night to the interest felt by the Profession in the subject of the paper of the evening—"The Medical Aspects of the Germ Theory," and although discussion was altogether deferred until Monday next, the interest was sustained throughout. The paper was read by Dr. Richardson, and was a rigid analysis of the germ theory in its direct relations to the diseases which, as some presume, owe their origin to the introduction of living self-productive germs into the body. We shall not on this occasion attempt to forestall the decisions of the Society by a word of criticism. We prefer ourselves to wait until the discussion has ended. Meantime, we would do our best to assist discussion, both in and out the walls of the Society, by placing before our readers the argument as it was set forth to the Society by the author of the paper to which we have referred.

The unsatisfactory positions of the Profession and the public in respect to the germ theory were first set forth. Amongst the general public, many reading men, and reading women also, think that, through the labours of one or two leaders in general science, they have caught up the Faculty of Physic; have detected it ignorant upon the subject of epidemics, and of some certain and simple means of preventing epidemics which have been discovered independently of any effort on the part of us, who should be the teachers, and not the taught, in matters of disease and prevention. There can be no concealment, further, of the fact that in the ranks of Physic there is shown an uncertainty of thought on the subject, at this moment, which is not becoming the dignity of the followers of Hippocrates and Sydenham, Hecker and Cullen, Boerhaave and Huxham, Morton and Fothergill, Hennen, Rush, Fordyce, Pringle, and Jenner.

The Profession, at the same time, has no opportunity of entering into discussion with the public on the subject, for so soon as disease is made a topic of general conversation the well-informed Medical man is brought to face such miserably loose generalisations, such gross assumptions, such entire innocence of the institutes of Medicine, and such absolute ignorance of the past history of Medicine, that he stands befooled in his own house, unable to speak in terms of common civility, and therefore bound to painful silence. But amongst ourselves there ought to be no misunderstanding, no silence. The professed in Medicine are bound to have an opinion which, being held and entertained by the majority, whether it be acceptable to the god Populus or not, should claim the respect of the learned at least.

The reason why a learned and purely Medical society should discuss the germ theory of disease thus given, Dr. Richardson brought his audience to the main point for its consideration. He eliminated altogether from his argument the general question of generation. He had nothing whatever to do with the origin of life, and if he had he should simply bend and say, as a wonderful authority said ages ago, that whereas once there was no life, then life was made out of the earth, and then it continued, that he can comprehend no more, nor tell whether the original process had ever or had never been repeated. He dealt, therefore, exclusively with the germ theory in its bearings on disease.

Turning now to the diseases involved in the subject in hand, Dr. Richardson proceeded to point out that, however much Medical men may seem to differ on some questions, there are certain beliefs held in common. We march in two divisions, perhaps more, but for a certain distance we all march on the same road.

We agree thus far: we agree that there are certain diseases which owe their origin to what, for the moment, may be designated, without further definition, "*poisons*." We agree that these poisons are organic in their construction; that they are specific in that they possess the power of inducing specific phenomena of disease; that they are transmissible; that they are communicable under given and well-understood conditions; and that, as poisons, they admit of being reduced to the state of matter which we call solid. We are agreed on the point that the poisons are distinct from other poisons with which they are sometimes in communion—such as the gases of decomposition, which, though offensive and, in one sense, poisonous, are not poisonous in the light of contagious or infectious poisons. Lastly, we are pretty well agreed as to the diseases which are proved to be due to these organic poisons. We are nearly as one in accepting the following diseases:—

Small-pox.	Puerperal fever.
Measles.	Cholera.
Scarlet fever.	Yellow fever.
Diphtheria.	Syphilis.
Typhus fever.	Gonorrhœa.
Typhoid fever.	Ague.
Erysipelas.	Glanders.
Hospital or pyæmic fever.	Spreading ophthalmia.

This common agreement is no mean measure of agreement amongst us. It is sound groundwork as far as it extends; an excellent basis for reconciliation ultimately, and for progress towards reconciliation immediately.

But from this basis we diverge at present into two paths or byways; in simple language, we have come to a point where we have lost our highway. Some of us now turn to what may be called the vital road, others to the chemical, or to the physical in which vital and chemical are either correlated or considered as identical.

The vital, including, of course, the germ theory of disease, was thus led up to, and what the exponents of this theory affirmed, and where they failed to convince, formed a distinct chapter. We will confine ourselves to this chapter in the present article, merely directing attention to the point that, as the theory is considered, the phenomena of disease are taken as the witnesses presenting the most reliable evidence.

The Vital or Germ Theory.

The vital or germ theory of disease—a very old theory, by the way—starts unmistakeably, however much its advocates may dispute the position on an analogy—the analogy of the process of growth and development of plants and animals. It has for this reason a deep root in the imagination—a root which would for a long season hold it up a living assumption, even were it proved stark dead. The theory, in brief, is that the diseases we have called communicable have their origin in germs, which germs possess the inherent property of reproduction, and which are, in fact, veritably, of plant or animal growth. Within the body these germs, it is believed, reproduce themselves, and by and in the act excite the phenomena of disease. Out of the body they exist, floating in air, commingled with dust, adherent to solid substances, such as clothing or materials of buildings, or suspended in water, in which they are movable, but not soluble. Owing to their vitality they are, it is urged, indestructible under the ordinary conditions of cold and heat, moisture and dryness; hence, unseen as they are after the most rigorous research, they still are present, and are ready, being received into the body, to increase and multiply.

The original ideal of the germ theory is stated in the above terms; but in the original the germs were all of one type and force. It soon became evident, however, that the germ theory of disease, in this its simple dress, did not answer all requirements, for as there were many diseases supposed to be due to germs, so it was necessary that each disease should have its specific germ. Here, again, the argument from analogy led the way. If each plant must have its specific seed or germ, and each animal the same, so small-pox and so scarlet fever must have their specific germs. By this line of reasoning, which Dr. Grove so ably treated upon some twenty years ago,

men were led to look directly for the specific germs of specific diseases, and at length the attempt has been made to indicate the existence of germs which possess actual and determinable specific properties, so that each disease may have its own germ. Still more, these germs, it is assumed, are to be traced to vegetable parasitic origin; and, further, they are represented as susceptible of development into other recognised organisms. Lastly, the germs and the developments from them have been connected, in order to complete the theory of their relation to certain diseases as causes of the diseases, with a process of fermentation, with what is called zymosis of disease, or with a process of putrefaction of organic substances; the argument being, no germ no zymotic, no putrefactive disorder in the animal, living or dead.

The salient features of the germ theory thus epitomised, the author discussed it on its own evidence, and in its relations to the phenomena of disease. He insisted that, before we could admit it, whatever our prejudices for or against analogy may be, we must have some satisfaction that it is consistently true, and in accord with the phenomena with which it is assumed to be connected. If a shepherd take us into a field and show us a ring on the grass like that which would be produced by the dancing of human feet, we need not be surprised that the shepherd should tell us the ring was produced by such means, granting that he knew the fact of certain evidence; but if he tell us that no human feet have ever been known dancing in that ring, and therefore it must have been the result of motion of invisible feet—feet of beings which he calls fairies—we need not disbelieve the man, but we are bound to ask him a few questions before we do believe him. We ask him whether he has seen the fairies, and has positively distinguished them as differing from mortals; we ask him whether they sprang out of the ground or descended upon it; we ask him whether they have weight and other physical qualities to produce the ring; and we inquire whether the phenomenon we see bears evidence of the truth of what he tells us. These questions unanswered, the theory he has formed, beautiful—nay, gracefully poetical—though it may be, and not improbable by the clue of analogy, cannot, with all its fascinations, be received. The advocate of the germ theory of disease, reasoning from an analogy primitively the same in mode of thought as the shepherd who reasons as to the origin of fairy rings, must also answer difficulties altogether apart from the analogy, or not be received as a correct interpreter of nature.

We see before us a phenomenon which we call a disease—small-pox, scarlet fever, or other similar disease. We ask from whence it comes, and are told from a germ. We ask, what is a germ, and are told it is a living organism, capable of reproduction, and in its existence passing through various stages and activities; it is a ferment plant, possessing the power of exciting fermentative changes in the human body, and the disease is the sign of the fermentation; or it is a spheroidal particle, a "micrococcus," much more delicate and minute at first than a ferment plant; it is the spore of a fungus, which, put into a soil rich in nitrogen, multiplies by division, and becomes "the cause of all putrefaction" and diseases bearing the signs of putrefaction. We are left at sea at once by these expositions; the phenomenon of disease is clear, it shall be the phenomenon of scarlet fever. Is that, then, a disease of fermentation or of putrefaction? Say the former, fermentation; is that then a new process in the afflicted body? We know that before the fever existed there was already a natural zymosis in the body; fermentable matter and ferment pre-existent: is this new growth going on in the body exciting, then, a new kind of fermentation, and, if so, what kind? Or is it producing putrefaction, and, if so, where is the putrefaction? We watch the patient to recovery or to death, and see no definite sign either of new fermentation or of putrefaction.

The germs, whichever development they take, admit, it is said, of reproduction in favouring soil, which favouring soil they find in every fluid of the body. We inquire, thereupon, if they are to be found in the diseases under consideration in all parts favourable, and we find they are not. They follow specificity. But why are they not universal, and pervading specially the blood? They are under no control of the body, they are minute enough to move everywhere, they have their own independent life and reproduction, yet they are special in locality.

The germs are compared, in respect to their action, with some well-known active transforming agents. Dr. Sanderson compares their action to that induced by pepsine on albuminous food. This comparison of the action of pepsine and of the poisons which induce communicable disease may be allowed as an excellent comparison, rightly construed; but pepsine is a product of animal secretion, is a dependent substance; and when bodies which are independent, vital, reproductive organisms are compared with pepsine, the vital germ theory is half exploded by one of its own engineers.

It was explained, in opening the paper, that Medical men hold certain ground in common, and are peculiarly unanimous in respect to the diseases which are communicable up to a given point. But from this point of agreement the logic of the germ theorists leads them naturally away from the modern school of thought, back to the anti-mediæval, if not beyond the Deluge; for, as it is affirmed that these germs are entities, so the products—the diseases—must also be entities. Thus, either some certain diseases are entities while other diseases are not, or all diseases are entities—by far the most likely in the germ theory; and we go back straight to the entity doctrine of disease. If a spheroidal particle, capable of reproduction, can enter the body, reproduce there, raise the animal temperature, excite the brain into delirium, produce eruption, and so specifically develope phenomena that the specific disease is as clearly traceable to the germ of the disease as the child is traceable to the parent, the dog to the dog, or the plant to the plant, why is not every disease voluntarily traceable, and why is not every disease, so distinctly a phenomenon of its own sort, to be considered as it once was—an entity springing from an entity? In other words, is not a new life implanted with the implantation of an independent self-productive germ? We may speculate, indeed, on the premises of the germ theory, without any laxity of reason, into the extremest conjecture, since we cannot give to a primary living self-productive being a secondary position in any train of phenomena that spring directly of it and from it. If one says a multiplying germ is the cause of the heat of a fever, another may urge with equal reason that it is the cause of the cold, or of the wandering of the mind, or of the convulsion, or of the paralysis. The disease is an entity, and the symptoms are its peculiar expressions by which it is known to be alive and active, and by which it is also known to be a member of a recognised family or race of entities of a common stock. We might, in short, most properly name diseases after their stock, as we name races or families of mankind.

By the same rule, we might find it absolutely necessary to change all our present method of conversation respecting diseases. A patient, instead of summoning us to his aid, because he was afraid of the outbreak of what now he would call cholera, might send for us because he feared a horde of micrococci had entered his house, and taken possession of his family; or Physicians themselves might dispute in the consulting-room on the question whether an invading living force they were requested to operate against was composed of micrococci, cryptococci, or arthrococci.

To sustain the theory, it is assumed that the germs of disease retain their vitality beyond what occurs in other and higher forms of life. To what heat, to what cold, they may be subjected and live is untold, and how long they may lie inactive is untold. To this possible persistency of life itself there may be no objection, but it nevertheless suggests difficulty. For if germs be ready to reproduce, under favourable conditions,

with the rapidity of reproduction assigned to them, and possess such persistency of life, it is hard to see why there should not be an increase of them, from which there could be no escape for man or animal, and by which, in time, the world would be depopulated. But history, so far from sustaining the idea of this possible catastrophe, denies it flatly. Some diseases of the epidemic class have died out altogether in places where they were most extensive. Where are the germs of those diseases — of black death, plague, sweating sickness, dancing mania? If the ague of London, the treatment of which gave fortunes to Sydenham and his contemporaries, depended on germs, where are the germs now? Can improved sanitary conditions have any effect in destroying living reproductive germs, which can resist the common causes of death and dissolution—nay, which can live through certain developments and back again to the primary? *In limine* the germ theory is wanting in evidence, even in respect to its own merits as a theory: it still rests on analogical evidence, which, as Campbell well expresses, is a defensive, not an offensive weapon in argument.

The theory, Dr. Richardson added, fails again, when it is tried, in accounting for certain of the most consistent and well-marked phenomena of the communicable diseases. If the theory were true, that fluid which is circulating to and through the minutest parts of the body—the blood—should, in the infected body, be charged with germs or their developments from the earliest stages of the malady. If the theory were true, there should be no localisation of infected fluids, whereas each disease is marked by local as distinct from general distribution. If the theory were true, the body, infected with organisms which, so long as they find a soil, are reproducible, should have no chance of recovery; for what is to prevent the continuance of the process of reproduction? But the facts are that the majority of persons suffering from communicable diseases recover.

Again, the theory fails utterly to explain some of the best-observed facts, in relation to the course and fatality of the spreading diseases. It does not account for the fact that certain great epidemic diseases, such as scarlet fever, erysipelas, Surgical fever, and puerperal fever, are most pronounced in the last quarter of each year, and least in the second quarter. It does not tell us why epidemics of the same communicable disease are attended at one time with low, at other times with high mortality. It does not explain the influence of age; why, in the case of the most communicable of diseases, scarlet fever, the prevalence of the disease is most distinctively marked from the fifth to the tenth year, with rapidly lessening liability after the tenth year. One can readily imagine that minds concentrated on what they conceive to be a grand generalisation may consider these difficulties founded on rigid facts as trifles; but to minds untrammelled by theory, and accustomed to look at the diseases, these trifles suggest difficulties which cast doubt on the generalisation altogether, and make it small as any of the trifles. Once more, the germ theory gives us no reading whatever of the nervous symptoms which attend and precede the other symptoms in cases of acute epidemic diseases, and it fails altogether to account for the immunity from recurrence of the communicable diseases—such as scarlet fever and small-pox—by virtue of a previous attack. Why cannot living persistent organisms, which ever reproduce themselves in suitable soil, reoccupy the same soil, and live and reproduce there again? Can they not enter the body a second time, or, entering it, cannot they reassert their activity? Can a man be charged with germs of small-pox or scarlet fever and remain unaffected by them? If so, why? He may, we know as a matter of fact, be proof against both diseases; but the fact is as proof against the germ theory as the man is against the germ.

These, briefly, were the leading points of the chapter of Dr. Richardson's essay which treats of the vital or germ theory of disease. In our next we shall epitomise, in like manner, his treatment of the theory he calls "the physical theory."

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. VIII.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

The Trial of Cooper v. *Wakley.—Expulsion of Mr. Lambert from the Medical Societies—Results of the Trial—Its Effects upon the Public and the Profession.*

In a former paper I stated my conviction—a conviction which, I believe, is now generally entertained by all impartial persons—that the form and style of the report of Mr. Bransby Cooper's operation, which gave rise to the trial, were unjustifiable and outrageous. Under any circumstances, such a report was a disgrace to its framers, and of course to its publisher. And now, when we can calmly look at the whole question without favour and without malevolence, it might be acknowledged that that report was neither strictly accurate or fair, even in its details. Mr. Partridge, it is true, admitted that, in the main, it was correct, but he could not endorse nor approve of the style in which it was written; but he repeated his assertion that by the first incision the bladder was reached, as was evidenced by a flow of urine. It will be remembered that Mr. Lambert denied this, and persisted in his evidence that a gush of urine did *not* follow the first incision; and then, when it was stated that in the second attempt the forceps were carried "somewhere," he suggested that they did not enter the bladder. This suggestion was manifestly unfair and most unjust to the operator. How could the reporter, standing some little distance off, arrive at such a conclusion? It was a mere surmise, and the statement was not made in the interest of truth, but to give a sensational and tragic character to the proceedings. Had Sir James Scarlett conducted his cross-examination of these two witnesses with his usual ability, he might have served his client better than he succeeded in doing. It was unquestionably a mistake on his part to treat Mr. Partridge as a "hostile" witness, for he was really not so. I have already stated that his evidence was able, calm, and impartial. The cross-examination of this witness, from the manner it was carried out, made an unfavourable impression on the judge and jury. Mr. Lambert was in a different position, and had no right to complain of any amount of severity to which he was subjected. But here, again, Sir James was not happy, though he did succeed in wringing from the witness the fact that there had been a "sort of quarrel" between himself and Mr. Cooper. But in his cross-examination, and in his address to the jury, Sir James failed to make the most of the admissions of Mr. Partridge, and of the almost impossibilty of Mr. Lambert being able to determine whether the forceps in the second attempt had entered the bladder or not. The case, shorn of all dramatic incident and fairly stated, amounted to one of great difficulty, from the unusual position of the stone, the deep perinæum of the patient, and the loss of his perfect self-command by the operator. But all this might have been stated in a few plain sentences. The facts, so far as they could be ascertained, might fairly have been given, and no one would have had any right to complain. The *suggestions* and the dramatic form of the report were without justification and without excuse of any kind. That Mr. Bransby Cooper was an injured and persecuted man, the Profession has long since acknowledged. I have stated that the jury were a long time undecided as to their verdict; indeed, at one time it was an even balance whether it would not be for the defendant. Mr. Thomas, one of the jury, came under my Professional care some years afterwards. He was known to a great number of persons as the first superintendent of the F division of police, and subsequently as the chief constable of Birmingham. He was a man of intelligence and shrewdness. He informed me that for a considerable time a moiety of the jury were in favour of a verdict for the defendant, and it was only after a perusal of the libels, for which the jury sent into court at the expiration of three-quarters of an hour, that the verdict, with very low damages, was given for the plaintiff. The jury were influenced in their verdict, not only by the form of the report, but by the very unsatisfactory nature of the evidence given by almost

every one of the defendant's witnesses. Had the defendant rested his case on the evidence of Mr. Partridge only, it is probable he would have obtained a verdict. Even the able and impartial summing-up of the judge would not have been effective in serving the plaintiff in the face of Mr. Partridge's evidence, and the able, energetic, and "sensational" address of Mr. Wakley. I think it would have been a great misfortune to the Profession and the public if the verdict had been on the other side; and though the damages were small, they were sufficient to mark the sense of the jury that the defendant had not proved his case.

That in some respects the verdict was a "triumph" for the *Lancet* must be admitted; but that the report and the trial did immense injury to the Profession I shall presently show. When the first excitement of the proceeding had died out, the members of the Profession began to reflect on the influence which it would have upon the general body of Medical Practitioners. They could not fail to perceive that, in the eyes of the public, such a report and such a trial must be injurious to the welfare and respectability of our calling. Steps were, accordingly, immediately taken to expel Mr. Lambert from the two Medical societies with which he was associated. He was a Fellow of the Medical Society of London, then the leading society, as far as position and reputation went. The President was Dr. Haslam, who, not agreeing in the manner in which the indictment against Mr. Lambert was framed, resigned the Presidential chair. But Mr. Lambert, after having been heard in his defence, was expelled by an almost unanimous vote.

He would not retract any statement in his report, nor would he admit that the form in which it appeared was objectionable and unprofessional. Had he admitted this he might have obtained a few votes; but as he would not, I believe not more than two hands were held up in his favour. His expulsion from the Westminster Medical Society was the occasion of a very stormy scene, chiefly on account of Mr. Wakley and some friends demanding admission to the meeting-room, and that admission being resolutely and effectively prevented. The Society, which was then in a very flourishing condition, met in the museum of William Hunter's house, which is now a gigantic French *café* in Great Windmill-street. The President was Dr. Anthony Todd Thomson, who somewhat exceeded his duties as chairman by vacating his seat, and moving to the floor of the room, in order to launch a severe and telling phillipic against the offending member. Mr. Lambert was expelled by an overwhelming majority. His defence was long, and possessed some merit; but he was a tame speaker, and rather defied his opponents and justified his conduct, instead of appealing to their sense of justice, and acknowledging his error in writing a report so offensive and unprofessional. I think he was hardly dealt with, in being placed in the very front of the battle. He might have succeeded in doing away with a great amount of animosity by declariug, as he could have done with perfect truth, that he was not responsible for the *form* in which the report appeared. But he elected, after advice, to stand the entire brunt; he did so, and from his expulsion his connection with journalism ceased. Mr. Lambert was also expelled the Borough Hospitals, and a board was placed in the hall of Guy's, cautioning all students against reporting for the *Lancet*. The penalty for disobedience was expulsion. This board was removed about twenty years since. The blow thus inflicted on his pride and position had a disastrous effect upon him. Never robust or in full health, he began to lose his spirits and strength. He still, for some time, carried on his practice as a Surgeon in Walworth; but he never recovered the shock, and died shortly after the trial. He was unfitted for the stirring times and exciting and arduous duties he had to fulfil.

I now propose to show in what way the trial affected the Profession, both in its social and political relations. In doing this, it is necessary to refer for a moment to the position which the Profession occupied at the time, with respect to the public and with regard to its internal economy. The public recognised only two classes of Practitioners, "the family Doctor" and the "Physician" or Surgeon—the consulting Practitioner. There can be no doubt, I think, that at this period the relation between the public and the family Doctor was, as a rule, more cordial and more binding than it is at the present time; that the rules of etiquette between doctor and patient were more rigidly observed; and that changing the ordinary Medical attendant was less frequent than it is now. If the "general Practitioner" was less skilled in his Profession and generally worse educated than at the present time, it is certain the confidence reposed in him was great, and he was the family friend. I do not intend to insinuate that this is not the case now, in a vast number of instances, but I am sure the older Practitioners will bear me out in my statement that our hold of our patients of the present day is less firm and satisfactory than it was forty years since. In one word, the Profession was held in more respect by the public at that time than it is now. The relations of the Surgeon-apothecary with the consulting Practitioner were also far more satisfactory. If the former occupied an "inferior" position, he was less liable than now to be interfered with or ousted by the Physician or Surgeon. I am sure there was more of the true *esprit de corps* then than there is at present. Moreover, we were free from the vice of specialism—a system which has done more to injure the great body of the Profession than all the quackery and "pathies" in existence. It has foisted on the public a belief that the well-informed Physician or Surgeon, trained in every department of his Profession, can do less for a local complaint than he who has devoted himself "specially" to the affected organ—as if the man who merely understood the action of the mainspring or the lever were a better watchmaker than he who was well acquainted with the entire machinery. Moreover, the Medical press was, previous to the establishment of the *Lancet*, conducted, at all events, with a gentlemanly spirit, and with becoming deference to Professional opinions and views. It was, in many instances, tame, but, as a rule, not ill-informed, and had scrupulously avoided all *personal* matters. Such a thing as a nickname was unheard of. It remained for the *Lancet* to introduce into Medical journalism an element which has caused more heart-burning and quarrels than any other could possibly have done. This was the system of personal attack and the calling of nicknames. It is probable that the early association of Wakley with Cobbett may, in some measure, account for this. They were both self-educated men; both had the highest opinion of their own abilities, and both men of iron frames and, if I may so call it, insensitive minds. *Cobbett's Register* had long been famous (1823) for its powerful writing and its personal abuse—often much more savage than that of the *Lancet*, but not more calculated to wound and distress. But Cobbett was attacking political opponents in times of great political excitement, and was battling with men who had behaved to him with relentless persecution and cruelty. There was no such excuse for Wakley. He entered into the fight against men from whom he had received no injury, and with whom he had had no previous quarrel. Not satisfied with criticising in no friendly spirit the doings and writings of eminent men, he attacked them personally; called Hospital Surgeons "bats," and Scotch Doctors "dubs." He abused them in a spirit of ridicule, and often attached nicknames to them which were galling and offensive. One was an "owl," another a "cock sparrow," another an "oyster," and so on; indeed, these are amongst the mildest of the nicknames used. The adjectives employed were often of the most offensive kind. In short, the *Lancet*, as the representative of Medical literature, was sunk so low that it was only to be classed with the very lowest of the political prints of the day. At this time the Medical press had obtained an unenviable notoriety for its personal abuse and the low *morale* which it manifested. It always appeared to me remarkable that a man of Mr. Wakley's undoubted shrewdness and ability could separate entirely, as he professed to do in his writings, the *personal* from the *private* character of those he assailed. It is probable that, amongst the Hospital Physicians and Surgeons who were the objects of his attack, there was not one whose private character was not unimpeachable. It would have been impossible to attack them on that ground, or, at least, dangerous; but their personal infirmities, their bodily defects, their characters as men holding public appointments, were unscrupulously attacked. I, for one, deny the possibility of separating, so far as he affected to do, personal from private character. How far ridicule and satire are fair weapons of offence and defence in public questions, is a point I shall not undertake to decide. That they are powerful agents no one will deny; but they ought to be handled by a master. Compare the attacks of Junius or even of Wilkes with those of Cobbett and Wakley—What a difference! The difference, indeed, between the polished fencer and the burly bruiser. And this may be accounted for, I think, in the fact that both Cobbett and Wakley were uneducated men—their early training had been defective. Had it been otherwise, the world might have been spared a vast amount of abuse, ill-feeling, and heart-burning.

"Ingenuas didicisse fideliter artes,
Emollit mores, nec, sinit esse feros."

The great excitement caused by the trial, in the public mind; the publication of the proceedings *in extenso* in all the news-

papers, and their separate issue in a pamphlet, could not fail to call the attention of the public to the position of the Medical Profession. They were inclined to regard most consulting men as "incompetent," and that the members of a Profession which could so quarrel amongst themselves and vilify each other were no better than they should be, and a great deal worse than people in general had supposed.

Those who recollect the period to which I now refer will bear me out in the truth of these observations. It took a long time to eradicate the impressions then made—their effects, I believe, are still in existence; and though the education of the Profession in general has been marvellously improved, and men entering on the practice of physic are generally better qualified by preliminary training and early education than formerly, all is not to be attributed to the influence of the Medical press. I am willing and anxious, as may naturally be supposed, as the oldest representative of that institution, to do it full justice. But I cannot shut my eyes to the faults it committed, to the enmities it engendered, to the personal wrongs which it inflicted, and to the bad example it set and followed. I am of opinion that, if the war which was waged by the *Lancet* against abuses and against persons had been conducted in a better spirit; had the question in dispute been argued on its merits; it would have been better for all of us. Reforms would have been effected in half the time; the scandal of numerous libels been avoided; the Profession as a body far more united, and its position with the public far more satisfactory. These, too, were the opinions of him who had played so important a part in the most stirring times. In later life, when he took a mental view of "the broad field of battle," after the clang of arms was over, and the sound of martial music no longer heard, he lamented over the havoc that had been caused, over the misery that had been inflicted. There were many causes for this—causes into which I need not enter; some will suggest themselves to my readers. At all events, Thomas Wakley, in his later years, conducted the journal associated with his name with so much good feeling (and, I may say, with proper dignity), as to have made some amends for the past. With respect to the trial which is the subject of this paper, I know that he deeply regretted its occurrence. It is somewhat remarkable that the plaintiff and defendant, through the good offices of Robert Liston, became acquainted—I may say friendly—nearly twenty years after the trial. I was the first person connected with the *Lancet* who saw Mr. Cooper after his contest with Mr. Wakley, and this was seven years after. I shall reserve the particulars of this interview, and some other anecdotes connected with the subject, until my next.

ABSTRACT OF THE HISTORY OF THE ANGLO-AMERICAN AMBULANCE.

By Dr. MARION SIMS.

SEDAN, September 25, 1870.

COLONEL LOYD LINDSAY,—Sir,—Wishing to return to New York early in October, I have resigned my position, as Surgeon-in-Chief of the Anglo-American Ambulance, into the hands of Dr. McCormac. I therefore feel it to be my duty to make you a statement of our doings at Sedan and its neighbourhood. I shall confine myself to our internal organisation and general hygienic condition.

The Anglo-American Ambulance has a little history of its own. The Americans in Paris appointed a committee at the beginning of the war to organise an ambulance. This committee invited me to select a staff of American Surgeons for this purpose. I accepted the invitation and organised the staff. When we reported ourselves ready to go forward to the seat of war, the committee suggested that we should set up our tents in Paris, and await the coming of the Prussians. The Surgeons unanimously opposed this proposition, insisting that our organisation was for the purpose of giving aid and succour to the sick and wounded on or near the field of battle. The committee was obstinate—the Surgeons no less determined—hence a split, and the American Surgeons dissolved their relations with the American committee, and formed a union with Dr. McCormac, Dr. Frank, Dr. W. Webb, and other English friends, under the title of the Anglo-American Ambulance. We then went to the French Société de Sécours aux Blessés, in the Champs Elysées, where our services were at once accepted. The English Surgeons had £200 sterling and a lot of stores. The French gave us 15,000 fr., horses, wagons, tents, and, indeed, everything we asked for. Both parties promised us all the money and all the stores we might need for the future. The French gave us 7000 fr. more at Sedan, and they have furnished us with rations ever since we entered the service, and will continue to give us money and rations. You know how generous and opportune has been the assistance from your side. Our organisation was completely French, but composed only of English and Americans. We studiously, and I can now say wisely, excluded all other nationalities; we were half-and-half, eight Englishmen and eight Americans. The English are—Dr. William McCormac, Dr. Frank, Dr. W. Webb, Dr. Blewitt, Dr. Wyman, Mr. Hewett, Mr. Scott, and Mr. Ryan. The Americans are—Dr. Marion Sims, Dr. Pratt, Dr. May, Dr. Tilghman, Dr. Nicoll, Mr. Hayden, Mr. Wallis, and Mr. Harry Sims. The English receive their pay from the English Society; the Americans are paid by the French Société de Sécours aux Blessés. I was made Surgeon-in-Chief, and Dr. McCormac was placed next in command. Dr. W. Webb was *comptable*, which includes the functions of commissary and paymaster. Thus organised, we left Paris on Sunday night, August 28, with orders to report at Mézières. We arrived there on Monday night, and on Tuesday, the 30th, we came to Sedan, where we found the Caserne d'Asfeld already converted into a Hospital, which the mayor gladly turned over to our use, and we took possession of it on the 31st. We had hardly entered its grounds when the roar of cannon announced the battle of that date. At night most of us repaired to the battle field; many of the wounded were transported to our Hospital at Sedan, but many more, too severely wounded to be transported, were housed in the village of Balan. Several urgent operations were performed that night by McCormac and Frank.

Besides those sent to the Hospital at Sedan, and those attended by McCormac and Frank, our staff saw and ministered to the wants of more than a hundred others. Drs. Frank and Blewitt remained all night at Balan, the others returning at midnight to Sedan. Early next morning (September 1) began the great battle of Sedan. Dr. Frank's Hospital was in the midst of it at Balan, and he was busy all day receiving and dressing the wounded that fell in sight of his door. The house that he occupied (the Mairée) bears the marks of many bullets, and he was at one time, for self-preservation, compelled to lie down by the side of his wounded and dying. Dr. Frank being thus accidentally, or I should rather say providentially, separated from us, established a branch of the Anglo-American ambulance at Balan, while we remained at Sedan. On the night of August 31 we received at Sedan thirty-six wounded, and on September 1 and 2 every bed (366) was occupied. During the whole day of the 1st the seriously wounded were brought on brancards or stretchers to the Hospital in a continuous stream. Dr. Webb, Dr. Wyman, Mr. Ryan, Mr. Hayden, Mr. Wallis, and Harry Sims were busily occupied at the door, dressing the slightly wounded and such as could walk. Dr. May, Mr. Hewett, and Mr. Scott were sent to the Mairée (bursting bombs falling on all sides), to attend the wounded there and in the adjacent houses. Dr. McCormac, Dr. Pratt, Dr. Tilghman, and Dr. Nicoll, others assisting as they could, devoted themselves to the operating-room. They stood nearly all day and a good part of the night at the operating-table, and McCormac performed a great number and variety of operations.

Without invading the province of Dr. McCormac's report, I may mention the fact that we never used the tourniquet at all; hence our patients lost but little blood during operations, and we never had a case of secondary hæmorrhage, which is remarkable, considering the number of operations, and the seeming haste with which they were sometimes done.

The moment we took possession of this Hospital, it was evident that we had to dread hospitalism, for it contained at least twice as many beds as it should have had. The building is about 300 ft. long by 66 ft. wide, two stories high, and contains 16 wards, 9 on the lower floor, and 7 on the upper. The wards are 66 by 24 ft., and scarcely 10 ft. high. They run transversely, have a large window at each end, and communicate with each other by large doors along the centre of the building. Each ward, except the third and seventh, contained 24 beds; these had but 10 each, because the half on the north-east side was occupied by broad flights of stairs. There were broad stairs also at each extremity of the building. The building is bomb-proof, of which we had ocular demonstration, for we were in the line of the Prussian batteries. Two of our *infirmiers* and a soldier were killed in the grounds near the building, and it was struck several times by Prussian bombs. It stands on the highest ground within the fortifications, and

near their northern boundary, overlooking the town below and the country beyond for miles. It is probably elevated sixty or seventy feet above the level of the Meuse.

The wide windows on the sides of the building afforded ample ventilation. They were never closed, and the wind swept through the wards all the time from left to right, or rather from S.W. to N.E. Carbolic acid was freely used. Carbolic lotions constituted the dressings in all cases. Free ventilation and carbolic acid kept the wards sweet, notwithstanding the immense crowd of seriously wounded. Good nourishment was ordered, but not often to be had. No one was allowed to suffer pain if morphine (hypodermically), or chlorodyne, or any other form of opium could control it. No one was allowed to pass a sleepless night if chloral could procure rest. It was a gratifying thing to pass through the wards at 10 or 11 o'clock at night and find 350 sufferers all quiet and sleeping soundly. What precious boons to humanity are morphine and chloral!

Free ventilation by open windows is not the plan in general use in French Hospitals. About ten days after the battle of the 1st, all the ambulances and Hospitals in Sedan and its neighbourhood were visited and inspected by a committee of French Surgeons. As they entered ward No. 1, in our Hospital, they saw twenty-four poor wounded soldiers, twelve on each side, the windows at each end of the ward widely open, with the wind blowing freshly through. They stopped a moment, looked a little surprised, shuddered, but said nothing. On entering ward No. 2, they found the same state of things, and immediately called out "*fermez les fenêtres.*" It was explained to them that our only hope of preventing purulent infection was free ventilation. They declared that we would endanger the lives of our patients by the *courants d'air*, which would produce pneumonia and local congestions. As each of us held such opposite views on the subject of ventilation, under existing circumstances, the inspection here ended, and the high officials turned and retraced their steps.

We have had several cases of tetanus (six or seven), and it at one time occurred to me that our free ventilation might have predisposed to it. But, on inquiry, I find that it was relatively more frequent in other ambulances, both French and German, than it was in ours, and I am now satisfied that our open windows had no special influence in producing it.

The amount of work done by the Anglo-American ambulance may be summed up thus:—

At the Caserne d'Asfeld, Sedan.

Registered patients	575	1050
Non-registered	150	
Externe	325	

The last-named includes those dressed but not admitted. Dr. Frank has kept you informed of his portion of the ambulance at Balan. Frank and Blewitt being separated from us, left but fourteen Surgeons and dressers to do the great amount of work at Sedan. We had Surgeons enough, but we needed dressers, and above all good nurses. Each Surgeon took an *infirmier*, and became his own dresser. Every man worked well and faithfully. We had no loafers amongst us. Some of our Surgeons had 48, some 58, and some 72 beds. This is no great number for one man if the cases are ordinary or mixed. But when each patient is seriously wounded, requiring a special care, then the labour of dressing becomes immense. Our men were so overworked, being also under-fed for several days, that every one of the fourteen, except myself, were at one time or another out of sorts. We had all the same diet.

During our great tribulation about dressers, Captain Brackenbury called to see us, and subsequently sent to our assistance the following gentleman, viz.: Dr. Beck, Dr. Clarke, Dr. Duncan, Dr. Markheim, Dr. McKeller, Mr. Parker, Dr. Warren, Dr. Atwood, and Mr. Mathews, who gave us timely and most valuable assistance, greatly relieving the small corps who had done the heavy work for the fifteen days previously; this was about September 15. At this date, Captain Brackenbury furnished us with the greatest abundance of supplies of all sorts. He also sent to our assistance Mr. Sartoris, as *comptable* and storekeeper, in the place of Dr. Webb, who was transferred to Dr. Frank for the purpose of organising his enlarged premises. Hon. Mr. Wood assisted Mr. Sartoris, and was very efficient in organising a new set of *infirmiers* for us.

Notwithstanding the crowded state of our wards and the extent and nature of the wounds, the hygienic condition of our Hospital was perfect till about September 14. For this we may thank ventilation and carbolic acid. McCormac and myself were beginning to congratulate ourselves on our good fortune, and to boast a little of the results of our labours, when all at once a most unlucky turn was taken, and, I regret to say, our promised beautiful statistical tables are spoiled.

On September 12, I requested the authorities to put up in our grounds half a dozen tents, merely to have them ready for any emergency—such as erysipelas, gangrene, etc. I was amazed to see with what alacrity it was done. But they did not stop with the six; they went on and covered our two or three acres with tents to the number of thirty-six, in spite of our remonstrances, and they then gave us notice to evacuate every patient that we could from our Hospital. We obeyed the notice, and sent out sixty-nine. And now we saw why the tents were so hurriedly put up, for we immediately received notice that we must take 156 more patients. We protested against it, and I had forty vacant beds pulled down and put away, to remedy, in some degree, our overcrowded state. The Prussians wanted the College ambulance in the town, and so they sent its 156 sick and wounded up to our Hospital, putting some of them in the Hospital, but most of them in the tents. One man died just as he was carried into the Hospital, and others died soon afterwards. This was the most wretched agglomeration of sick and wounded that could be imagined. One had small-pox; about forty had wounds of the most dreadful nature, with profuse and exhausting discharges, some of them in a state of mortification; and the remainder were cases of fever, diarrhœa, and dysentery. Add to all this that we did not have Doctors and nurses enough to minister to their wants, and you will readily see how unfortunate this inundation of sick and wounded was for the hygienic state of our Hospital. The tents were erected under protest from us, and they were filled in an hour or two with these poor creatures, in spite of our protestations. But the authorities in power (Prussian) were inexorable.

After three days they agreed to remove the fever and dysentery cases, if we would agree to take charge of the seriously wounded. To this proposition we unfortunately assented, and thirty-six men with awful wounds and with diarrhœa were removed from the tents and distributed through our wards. Almost every one of these new-comers have died, and, in spite of free ventilation and disinfectants, our old patients contracted diarrhœa, and many of them have died of purulent infection. From the day that these typhoid cases were introduced, the health of our Hospital began to fail, and it was necessary to hurry out many of our wounded, who, under other circumstances, ought to have remained longer. Dr. McCormac will give you a more detailed account of this disaster, which has been a source of such unhappiness to both of us. I should have mentioned the fact that the tents were not suited for the reception of the sick. The ground was wet, and not covered by either boards or straw.

We have had many disadvantages and annoyances to encounter, amongst which the water supply was not the least. The water was cut off from the caserne by the French when the dykes around the fortifications were flooded. On the evening of the 1st and on the 2nd the grounds around the Hospital were densely covered with camping, cooking—soldiers, amounting to several thousands, and all of them used water from our fountain, which was rendered muddy. The mud could be filtered out; but there was one element added to the water that we could not get clear of by any sort of filter, physical or mental. It was said that we found three dead Zouaves in the cistern; two were gotten out very soon, but the third remained for some time. The young gentlemen then called the water "Eau de Zouaves"—not a very appetising name when associated with tea, coffee, chocolate, or soup. I cannot vouch for the above, but I assure you it is positively asserted and really believed at Sedan. For some days we were compelled to haul water from the town. The Prussian commandant eventually had the water turned on, and this source of annoyance and anxiety was removed. When the French soldiers left our grounds on the 3rd the place was stacked with arms and other accoutrements of war, and literally covered with the offal of slaughtered beeves and dead horses, and all sorts of filth and garbage. It was several days before it was cleared up, and during this period our neighbourhood was anything but agreeable.

You can hardly imagine the trouble we had with our *infirmiers*. The large number (seventeen) that we brought from Paris were, with two or three exceptions, utterly worthless. They were ignorant, dirty, negligent, disobedient, and insolent; and we were obliged to send them away. The French authorities then supplied us with military *infirmiers*. These were a little better. But, as soon as we got a set of them at works, the Prussian authorities would send up a file of soldiers,

and march them off as prisoners of war. This happened several times. On one occasion they marched off forty-seven of our *infirmiers*, in spite of the entreaties of Dr. Webb, and that, too, on the day after they had sent the large number of sick into the tents. We were then forced to try a new plan; so we sent into the town and hired men and women to come and help us, who could not be taken as prisoners of war. These were mostly people wholly unused to nursing, and were of course poor makeshifts. Although ignorant, they were obedient, and in this respect they were an improvement on the military *infirmiers*.

While in the midst of this perplexity about nursing, I had the good fortune to meet Mr. Landle, of the *Illustrated London News*, who told me that Mr. Parker was at Donchery (about three miles off) with some English ladies, who had come from London to nurse wounded soldiers. I lost no time in searching them out. I offered Dr. Parker a ward in the Hospital, and I implored the ladies to give up their labours in Donchery and join us. I found four of them diligently attending sixteen wounded Germans, when we had more than four hundred in the greatest need of their kind care. I am truly thankful to say that Dr. Parker and the ladies came at once. They are Miss Pearson, Mrs. Mason, Miss McLaughlin, Miss Neligan, Miss Barclay, and Mrs. Holtmann. About this time four sisters of charity from the town volunteered to help us; two of them during the day, the other two at night. From the moment that women were introduced as nurses the whole aspect of our establishment was changed. The French expressly prohibited women from going to the seat of war as nurses, and I hear that in England public opinion is divided on this subject. At this I confess I am a little surprised. Who nurse the sick in the family? Not men. Who are the nurses in our civil Hospitals? Women, of course. And why should not women nurse in military Hospitals? And, above all, why should they be excluded from volunteer ambulances? If our children, and if we ourselves need and claim in our afflictions the kind care of woman, why should we prevent her from ministering to our poor sick and often home-sick wounded soldiers? How often in the last ten days have I passed through our wards at midnight, and found the man nurse asleep, absolutely snoring, beside his brother man who was in the last agony of death. But the woman slept not; there she stood with cordials and kind words, and while she gently smoothed his pillow, listened to his last words of love, sent in broken whispers to a doting mother, a loving sister, or perhaps to a heart-broken wife. This is no fancy picture; it's a sad reality that I have witnessed over and over again in our Hospital.

Only last night a poor wounded soldier's life was saved by one of our lady nurses in a most remarkable manner. It is well known that gunshot wounds are often followed by secondary hæmorrhage from ten to twenty days after the wound is received. I have seen it several times here. We had great trouble in arresting a bleeding of this sort in Dr. Tilghman's ward, No. 14. It took us quite two hours to do it. One of our lady nurses (Miss Neligan) stood by aiding us all the time, and was greatly interested in what she saw. It was midnight. I was tired, and went to bed, and so did the other Surgeons and the men nurses, all well satisfied with what we had done. But the woman! did she heedlessly give herself up to drowsy sleep and self-indulgence? No, she remembered three or four badly wounded men in her ward, nearly a hundred paces from the scene of our tiresome two hours' work, and fearing that some such accident as she had just witnessed might occur to them, she stole quietly down, gently uncovering the shoulder of one, the arm of another, and the chest of a third, when, to her great horror, she found one of her patients lying in a pool of blood still gushing forth in a great stream. Instinctively she grasped the wound, and stanched the blood by compression, called up a sleeping dolt of an *infirmier*, sent for the Doctor in charge (Dr. Duncan), who came at once and permanently arrested the flow of blood. Five minutes—two—and the man would have been dead, the male nurse sleeping soundly by his side. The quiet manner, the gentle touch, the kind word, the thoughtful care, and the sweet sympathetic voice of woman are just as much appreciated by the poor sick soldier as by a poor sick child. In sickness we are but great children. Men have physical courage in an eminent degree. They march steadily, bravely up to the cannon's mouth, and get their heads blown off. But if by chance they are not killed outright—if they only get a shattered wrist or a wounded knee, they absolutely howl with the pain. Why, then, when they are so miserable, should they be rendered more so by shutting them up with a parcel of brutish, unsympathetic *infirmiers*?

As nurses, I would not exchange one woman for a dozen men.

In regard to the organisation of ambulances, let me say a word. The *personnel* of the French ambulances were too numerous. They had an expensive retinue of *infirmiers*, which might be dispensed with in a great degree. I would organise an ambulance as follows:—One Surgeon-in-chief, two or three Surgeons, dressers in proportion, three or four women nurses. I would pick up *infirmiers* whenever and wherever they were needed. In time of war there are idle men enough out of employment who are glad of occupation. We had no trouble in Sedan in finding such when we made inquiries for them. It would be better to send out several small ambulances thus organised than one too large and unwieldly.

The International Volunteer Ambulance is now a fixed institution. The red cross of Geneva must hereafter float over every battle-field of Europe. In any future wars you may admit foreigners to serve in your ambulances. But I pray you not to send out Englishmen to take a secondary position in foreign ambulances. I have seen several Englishmen and Americans who had been tacked on to German ambulances, and some who had gone out with the French, but they experienced none of that cordiality that we see between English and Americans, and they were glad to escape from their false position to us, who were ready to accept their services on equal terms. An Englishman or an American did not feel at home in a German or a French ambulance. The Belgian, the Holland, and the Swiss ambulances, working as units, all did well.

Now, Sir, in taking leave, allow me thank you for the promptitude and liberality with which you have supplied all our wants, and to tell you that I have only words of praise for every member, male and female, of the Anglo-American Ambulance. To Dr. McCormac, as co-Surgeon-in-Chief with me at the Caserne d'Asfeld; Dr. Frank, as chief at Balan; to Dr. Webb, as *comptable* for both establishments; to Father Bayonne, the Catholic priest; and to the Rev. Mr. Monod, the Protestant minister, I am under the greatest obligations. And to each and every member of the Anglo-American Ambulance I beg leave to tender my most grateful acknowledgments. We have worked together cheerfully, heroically, each vying with the other in doing his duty.

Believe me, Sir, yours, etc.,

J. Marion Sims,
Surgeon-in-Chief of the Anglo-American Ambulance.

REVIEWS.

Traité de Médecine Opératoire, Bandages et Appareils. Par Ch. Sédillot et L. Legouest. Quatrième Edition. Paris: J. B. Baillière et Fils. 1870.

In a work of this magnitude—for the two large volumes contain 1439 pages, and are well illustrated with 723 woodcuts, embracing the whole domain of Practical Surgery—there is too much material to notice in a review of any length likely to be palatable to our readers. Dipping into the book and culling its best bits has been a task of so much pleasure, that we would rather invite others to do the same than attempt to satisfy them with a brief criticism. We shall content ourselves with noticing some of the more important additions to the present edition of this well-known work.

The veteran Strasbourg Professor has done well to call in the aid of so well-known a Surgeon as Professor Legouest, of the Val-de-Grâce School, to assist in bringing up his great book to the latest date. The result is a treatise, which may be said to embody all the most recent advances in Continental Surgery; and when we mention that even so very minor an operation as piercing ladies' ears for earrings is gravely discussed in half of a large page, minute directions being given for the different stages of this formidable procedure, we think we have said enough to show how carefully the smallest details are considered which may affect the result of any Surgical operation.

The book fitly opens with an introductory address, in which the whole science of Surgery is reviewed, and the lack of a philosophical and true union of Medicine and Surgery deplored. It is forcibly pointed out that although in large cities it may be well that there should be certain men specially devoted to one or another branch, those practising in the country, in remote towns, or in the army, should be as thoroughly instructed in the principles of Surgery, and skilled in the performance of its ordinary operations, as conversant with the more common Medical ailments and their treatment. The most recent improvements are briefly reviewed, attention being specially paid to the progress lately made in matters of Hospital hygiene,

the action of the *écraseur*, Surgical drainage by Chassaignac's tubes, metallic sutures, subperiosteal resections, ovariotomy, and the like operations for removal of abdominal tumours, and the important branch of the art included in the term "conservative Surgery." On all of these points the great master gives concise but valuable and weighty judgment, indicating exactly how far the several improvements are likely to hold their ground, and in what respects they have been over-vaunted. Such an introduction sends the reader with earnest zeal to the body of the work, in which such serious subjects are treated in detail.

M. Sédillot has worked so much in his day at the subject of chloroform that we are not surprised to find that a considerable space is devoted to general anæsthesia, due credit being given, in the historical sketch of the subject, to the Americans, to whom, no doubt, we are indebted for that great principle of which the use of chloroform is merely a modified application. Nor is this modification praised too highly. The risk of immediate death is prominently noticed, and the author's views summed up in these three propositions:—"1. Each time that recourse is had to chloroform, the question of life or death has to be considered. 2. The administration of chloroform is an art needing constant attention, and much skill and experience." And, lastly, lest the minds of Surgeons should be too much set against so valuable a measure, we are told that "3. Pure chloroform, well administered, never kills"—a statement which we should, indeed, be happy to endorse, but which, in the light of too many recent Hospital experiences in London, must be considered as somewhat over-assuring. The mode of administration recommended is the handkerchief lightly folded into a funnel-shape; and Clover's apparatus, so highly esteemed by English Surgeons, is not mentioned. In discussing the cause of death, much stress is laid on the necessity for watching the respiration rather than regarding the pulse or pupil. We have ourselves had the melancholy privilege of witnessing three or four deaths from chloroform, and in each case it was clear that the cause of death was asphyxia rather than syncope. It is true that the operator's attention may be attracted by the cessation of hæmorrhage from the cut surface; but this is secondary to the interference with the respiration. But the point on which M. Sédillot dwells most emphatically is the purity of the drug employed. Local anæsthesia is disposed of in a very summary fashion, the various agents for its production being merely mentioned to be discarded as either too complicated or too uncertain for general adoption. An interesting account of charpie, or frayed-out linen, which is used in place of our lint, will well repay perusal. It is objected to English lint that it is neither thick nor soft enough to occupy much space or absorb much moisture, and the various forms in which charpie is employed are described. Treating of mechanical beds for securing even support in bed-sores, etc., the water-mattress is mentioned to be condemned, most of the patients to whom it was supplied having "habitually borne it badly." The floating-bed, generally used in our Hospitals, however, which perfectly meets the requirements of all such cases, is not alluded to. Under the head of Vaccination, the revival of the direct inoculation from the heifer in France is alluded to, but no confident opinion expressed as to its superiority over the ordinary method. The objections to vaccination are ridiculed, although the possibility of imparting constitutional syphilis by means of the lymph is mentioned as an occurrence unhappily but too frequent.

The section on Gunshot Injuries derives a melancholy interest from the unhappy fortunes which have befallen the author's town so soon after the revision of this portion of his subject — opening with an earnest appeal to all Surgeons likely to meet with much practice in this direction to use all the means in their power to perfect themselves in the art of detecting and extracting foreign bodies from the tissues, and to strive to master the precepts of Percy and Larrey. The history of this branch of Surgery is glanced at, and the story told of how Ambrose Paré discovered the mistake of treating such injuries as poisoned wounds. The great Surgeon, then in his nineteenth year, having a large number of wounded soldiers under his charge, was kept awake one night by the anxiety caused by the lack of boiling oil with which to cauterise certain of the sufferers. He was astonished, however, on the morrow, to find these neglected cases looking much better than those who had profited by the routine treatment; and the fact led Paré to abandon at once the prevailing practice of the greatest masters of his age.

The observations of M. Sarazin on the wounds produced by the chassepôt rifle in 1867 are recorded, and much excellent and practical advice is given in the treatment of those varieties of wounds with which late terrible experience has made every one so familiar.

The section on Hæmostatics is very valuable. We note that only limited torsion is mentioned, and then merely to be condemned as a difficult, tedious, dangerous, and justly obsolete practice. The author is clearly unconscious of the popular return to the abandoned method in this country; but in this, as in so many other points, the book is essentially Continental, and pays but little regard to the progress of Surgery in England. Acupressure, however, is tolerably fairly described; but it, too, falls under censure, as being both difficult and uncertain in its operation, and partly, also, for a thoroughly French reason. The main advantage claimed for acupressure is that it facilitates primary union of wounds; and we are told that this is a dangerous illusion, such union—in amputations, at least—never taking place, and being even improper to attempt. It is in this and in the following sections on the Ligature of Special Arteries that the beauty of the partly coloured drawings is so fully appreciated. Some of these woodcuts, with their coloured vessels, are perfect models of what such illustrations should be, and it is strange that we have never adopted the method in our English text-books of anatomy and operative Surgery. Not the least useful portion of the book is that in which the duties of the operator and his assistants are set forth and rendered plain by an excellent drawing of a capital operation in which each man is placed in the position he should occupy, instead of the confusion of willing assistance which too often mars the most brilliant operation. After dwelling upon the ordinary circular and flap amputations and their after-dressings, the author describes his own dressing of amputation wounds, of which the most singular feature is that a thick fold of lint steeped in a lotion is applied to the end of the bone, so as to constitute a central canal in the stump in which the ligatures lie, and by which all discharges may escape; the sides being brought into close union meanwhile, so as to unite fairly before the lint is removed, on the third or fourth day. A long dissertation on special amputations is followed most appropriately by a description of the various artificial limbs and other mechanical appliances, which are left in England far too exclusively in the hands of instrument-makers. This subject is here admirably illustrated, and as fully explained as its importance demands. On staphyloraphy, of course, we have an exhaustive *résumé* of what has been proposed, with special reference to Prof. Sédillot's labours in this department.

The section on Affections of the Eye is now enriched with numerous additions, in which the aid of MM. Stocker and Monoyer has been wisely employed, the woodcuts also being in many instances marked improvements on those in former editions. The observations on cancer and tumours, on the other hand, are prompted by too obscure a pathology to make the practical deductions as to operations of much value, since the real nature of the growth is not clearly defined; and therefore, of course, the value of Surgical interference is not easy to estimate. This seems, indeed, to be one of the greatest difficulties which beset Surgeons—namely, to be able to prognosticate from the naked eye and microscopic characters of a growth its probable course, and the indications so offered for its removal by operation. The relation of microscopical structure to clinical malignancy constitutes, perhaps, the most pressing Surgical question of the day, and until more light is thrown upon it than we already have, all statistics and reasoning founded on the duration of life, with and without Surgical interference, in cases of tumours and cancers, must remain of comparatively little value. On the radical treatment of hernia as many as twenty-five different methods are related; Wurtzer's operation, not a very easy one to describe in words, being rendered tolerably plain by carefully executed drawings; but we miss any reference to Mr. John Wood, as also further on, when ectropion vesicæ is under consideration. In like manner, good English workers are passed over in the account of the laryngoscope, and the beautiful operations about the trachea, which have been rendered possible since the introduction of this instrument.

Discussing the operation of castration, and the various conditions requiring such treatment, the several modes of operating are considered, and praise is given to what we may term the "rough and ready method," which, long practised, has of late years been revived by Zeller, and which consists in seizing the diseased testicle in the left hand and lopping it off with one stroke of the bistoury, an assistant drawing the skin of the scrotum well up and out of the way. It is said to have been attended with good results in Germany, and to be followed by less suffering and suppuration than any other method; but, of course, it is only applicable to cases in which the disease is

of limited extent, and the testicle readily separable from surrounding tissues. It is pointed out, also, that the hæmorrhage from the divided cord, so much dreaded by Surgeons, cannot be very formidable, since Petit was wont to control it by a graduated compress over the ring, Ledran by squeezing the vessels, and later Surgeons by the use of a fine *écraseur*. Nevertheless, it is wisely recommended that the cord should be tied, either *en masse*, as is usually done in England, by a double ligature, after Paré's method, or by the plan followed by Dupuytren, Delpech, and Roux, of slowly cutting through the cord, and tying its various elements separately.

The treatment of the Surgical diseases of women is discussed at much length, and the last 150 pages are devoted to the diseases of the urinary organs, including admirable descriptions of lithotomy and lithotrity.

Altogether, we are sure that the present edition of this standard work on Continental Surgery will enhance the great reputation of its distinguished author and his colleagues, whilst the admirable manner in which it is printed, the size of the pages—allowing of wide space for marginal notes—and, above all, the excellence of the woodcuts, renders it one of the pleasantest works of reference we have met with.

GENERAL CORRESPONDENCE.

NEW STUDENTS AT ST. GEORGE'S.

Letter from Dr. A. W. Barclay.

[To the Editor of the Medical Times and Gazette.]

Sir,—I trust that the "Government Inspector of Anatomy" is not guided in his distribution of subjects to the different schools solely by the official return of the freshmen at each, as published in your columns. Out of twenty-nine new students entered at St. George's Hospital School, it appears that only twenty-three are registered. This is probably due to the circumstance that some of them, as belonging to Oxford and Cambridge, have already registered at their own universities, while one or two who have not yet passed their preliminary examination have commenced attendance with a view of furthering their future progress, although the courses do not count as part of their Professional study.

I am, &c. A. W. Barclay,
Treasurer of the School.

23A, Bruton-street, Berkeley-square, W., October 27.

LOSS OF HAIR.

Letter from Dr. Edwards Crisp.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you allow me to ask if any of your readers can suggest a plan of treatment likely to be useful in the following case?

A gentleman, about 28 years of age, strong, muscular and healthy in every respect, without syphilitic taint, and without hereditary tendencies—indeed, without any apparent cause—last year, in the space of a few months, lost every hair on his body: the baldness commencing first on the head in patches, then extending to the eyebrows, eyelids, beard, pubis, and all the other parts of his skin. Previous to this, he was a hairy man, with a long, stiff, bushy beard. A careful microscopic examination of the few hair stumps that are left, does not enable me to detect any positive traces of fungoid disease.

I cannot find a well-recorded case of this kind in any of the works I have consulted, although general alopecia is mentioned by several authors. Many years since, I met with a somewhat similar instance in a young clergyman, and a Medical friend has furnished me with a third example.

A collection of like cases of general alopecia, including supposed causes, and the result of treatment, might, perhaps, throw some light upon this mysterious affection.

I am, &c. Edwards Crisp.

29, Beaufort-street, Chelsea, October 20.

The Merthyr Tydvil Board of Guardians, at their last meeting, appointed an officer to prosecute all persons throughout the Union who neglected to have their children vaccinated.

It has been proposed to convert the Warwick Dispensary from a charitable to a provident institution. New rules have been prepared, but the scheme appears to have excited some opposition.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, October 25, 1870.

Dr. Burrows, F.R.S., President, in the chair.

Special General Meeting.

The Surgical Secretary, Mr. T. Smith, having read the summons for the meeting,

Dr. W. Ogle, the Medical Secretary, read the report of the Council, stating that four of the existing societies had said "yea" and two "nay" to the proposal of the Royal Medical and Chirurgical Society to form a Royal Society of Medicine. The question for them to consider was whether they were desirous of following out the scheme on this new basis.

The President pointed out that no particular course had been indicated by the Council; their position involved difficulties, the consent to amalgamation not being uniform, and they therefore appealed to the Society as to what was to be done.

Dr. Greenhow, in proposing the first resolution, said he felt that it was late in the day, after the labour they had spent, to consider whether this Society was to accept the terms they themselves had offered. Matters had been brought to such a pitch that he expected they would go on as a matter of course. This Society had offered certain terms, and those societies had accepted them; he thought they were bound to go on. This was no time for argument as to the advisability of proceeding in the matter; they were already committed to a certain policy—they must go on. He regretted the others had not joined, but he could understand the reasons why they had stood apart. The Medico-Psychological Association was a movable body, meeting at one place and at another. The Obstetrical Society also had a different position from the other societies—they had, at least, the nucleus of a library and a museum. Nevertheless, were the new body formed, both might, in course of time, come round to a thorough amalgamation. Meantime, the four societies united would be a great step in advance. He ended by proposing—

"That, in case the Pathogical, the Clinical, and the Epidemiological Societies shall agree to persevere in the proposed formation of a Royal Society of Medicine, they shall be invited each to nominate three representatives, and that the Council of this Society be authorised to appoint those representatives of this Society, and that the Committee of Representatives thus formed be directed at once to take the necessary steps for obtaining a charter, and also afterwards proceed to draw up a code of by-laws for the Royal Society of Medicine, which shall hereafter be submitted for revision and approval to the several Societies."

Dr. Barclay had always at heart the union of these societies, and was glad to further that union. He did not anticipate that the Obstetrical Society would ultimately be any great obstacle; by-and-bye they would come round. He begged leave to second the motion.

Mr. T. Smith asked if the delegates mentioned in the motion were to be expected to form an obstetrical section.

Dr. Greenhow, for his own part, would say distinctly—not at present. They would unite the four and wait—the others would probably join.

Dr. Murchison affirmed that this was a totally new proposal. It was intended to found a new society with certain sections, and the other societies were invited to join. Now, they were to have a Royal Society with four sections only.

Mr. Henry Lee maintained that the Society had agreed to nothing beyond a plan of uniting all existing societies. Many men of weight in the Society had not, however, been consulted, nor had the Society approved of the scheme as a whole, but only in its individual parts.

The President pointed out that the last resolution affirmed the scheme generally.

Dr. Webster opposed the notion of applying for a new charter. He would be sorry that the old and universally respected name of the Royal Medical and Chirurgical Society should be merged in a new one. They had power to form sections of their own, and a fresh charter would cost much money. It was a very different thing, getting a charter for a new society and a new one for an old society, especially in a case like this, when the proceeding would be opposed as to giving up their property, and so on.

Mr. Arnott thought the work of the new society would mostly fall on the young men. As far as he had seen they were in favour of the scheme, merely from an economical point of view, with a view to access to the library without any entrance-fee. He thought it significant that a good many supporters of the measure had, on mature consideration, become its enemies. This step would alienate men still more, all the existing societies not being included in the scheme. Were a true academy of Medicine formed, composed of men of standing and influence, it might do good by influencing the Government and the country at large. By adopting the present scheme that much more important one would be indefinitely postponed.

Mr. Durham proposed, as an amendment, that this proposition be read this day twelve months. He was willing to pay all due tribute to what had been done. It was quite true a certain number of societies had by majority agreed to the scheme, but many opposed it. In the Council of the Pathological Society matters were so doubtful that they hesitated to send any recommendation to the Society; so also of the Clinical Society. With regard to this Society, many were strongly opposed to it, and some of the old Fellows had determined to appeal to law against dropping the existing charter. The feeling in favour of the scheme was not strong enough, whilst the minority ought to be respected.

Mr. Paget said that, as President of the Clinical Society, he had taken no part in the discussion. He did not feel warmly in its favour, but the scheme as then proposed might fairly have been adopted; but it would not be right to sacrifice so much for anything short of the union of all existing societies. It was not desirable that the Society should give up all it has won for the sake of uniting with three societies. They might, however, co-operate with them without giving up any of their privileges. As to the Obstetrical Society, he could hardly blame them for refusing to join; in fact, there was no reason why they should join, and their decision must be accepted as final. It was right to think that the oldest, largest, and most respected society in the kingdom—the Royal Society—had been the parent of numberless off-shoots, yet it now flourished more than ever. He would propose that the Council try to find some mode of co-operation with the other societies short of union with them. He moved—

"That the Council be requested to consider whether, while maintaining the charter and constitution of the Royal Medical and Chirurgical Society, it may be possible to obtain a more complete co-operation with the Pathological, Obstetrical, Clinical, and Epidemiological, or other Societies for the promotion of Medical science."

Mr. Croft seconded Mr. Durham's proposal. He thought that if united at all it should be unanimously.

Mr. Carter thought the mover and seconder of that motion must be of those who believe that the minority should rule, because they are always in the right; yet in England we accept the rule of the majority. Certain conclusions had been arrived at by the Society, and these ought to be followed out.

Dr. Squarey also thought that Dr. Greenhow's proposal was something new.

Dr. Barclay said that Dr. Greenhow had carried him further than he wished. He thought only of the original scheme. The institution of an obstetric section might be postponed, but not indefinitely. He meant merely that the Society should go on with their scheme.

Mr. Brooke said the resolution involved the carrying out of the whole scheme.

Mr. Curling meant to vote against Dr. Greenhow's motion. There was a want of cordial concurrence which would be fatal to the scheme. He could not conceive of a Royal Society of Medicine without obstetrics. For an imperfect scheme, it was not worth while to give over valuable property, etc.

Mr. Gascoyen thought that if they waited until they had the cordial co-operation of every member of every society their scheme would never go through. In all cases a conclusion had been arrived at by a majority. That showed a desire for amalgamation; and if the principle had been so often affirmed they ought to go on with it. The work of this Society had doubtless been well done, but by union it would be strengthened.

Mr. Hulke said that at the Pathological Society's meeting 34 voted for union, 21 against it; and the minority included the best workers in the Society. Besides, two-thirds were necessary for any fundamental alteration in the Society.

Dr. Barnes said the Obstetrical Society had not seceded from the scheme. They were anxious to unite, but this Society rejected their proposals. The Medico-Chirurgical Society would not grant their terms.

Dr. Powell thought it might be becoming to send the modified scheme to other societies for their consideration.

Mr. Gay did not think that the good work of the Society would be made better by union.

Dr. Quain would second Mr. Paget's proposal. If Dr. Greenhow's were carried it would entail more discussion, and there was little hope that the scheme would now be carried, and, even if carried, little would be done. He thought Mr. Paget's plan much better, and that it would work well.

Mr. Durham having withdrawn his amendment, Mr. Paget's became the amendment on the original motion.

Mr. Savory thought Mr. Paget's the only practical scheme left. They were losing sight of the fact that only four sections were left. They would best meet the difficulties after the manner indicated by Mr. Paget; it would add to their character and credit, and their work would be better by concentrating their forces.

Dr. W. Ogle thought the discussion had taken a new turn; union had already been determined on, and he thought it good to go on with four societies. He did not think that secession altered the case. At the last meeting of this Society, the secession of the Obstetrical was perfectly well known, and the members of the Medico-Psychological Association were in the capacity of subscribers to a common journal merely. They were pledged to go on with their scheme, and it would be discreditable to abandon it.

Dr. Wood took the part of the Medico-Psychological Association, pointing out that they were something more than what was described by Dr. Ogle.

Dr. Murchison supported Mr. Paget, as his plan would open up a mode of discussing various schemes. Hitherto they had been limited to one, and one only.

Mr. Carter affirmed that this was the reversal of what had been done before by the Society, and moved an adjournment of the discussion.

This was seconded by Mr. Brodhurst.

The President said it would not be fair to adjourn; it would be hard on those who had come with difficulty to separate without doing anything.

Dr. Greenhow having briefly replied to the effect that union had already been affirmed by the Society, and that the motion was merely to ask for delegates, Mr. Paget's amendment was put to the meeting, and carried by a majority of 30 to 16.

An adjournment was again proposed at this stage by Dr. O'Connor, and seconded by Dr. Greenhow, but was lost by a majority of 30 to 12.

Finally, Mr. Paget's amendment having been put as a substantive motion, was carried by a majority of 29 to 6, and the meeting separated.

THE PATHOLOGICAL SOCIETY.

Tuesday, October 18, 1870.

Richard Quain, M.D., President, in the Chair.

The President, in welcoming back the members, took occasion to enumerate the losses sustained since the close of last session. Amongst these was Dr. Copland, who was present at the earliest meeting of the Society, and who had been always its friend. Mr. Nunneley, of Leeds, Mr. Charles Moore, Mr. Zachariah Lawrence, and Dr. Rooke.

Mr. Spencer Watson then presented to the meeting certain specimens of Glioma of the Eyeball, removed from a child. The growth had been gradual; first one eye and then the other was affected, and the cheek was invaded. The vitreous was found to be superseded by a kind of putty-like material, and the nerve was gliomatous. There were separate secondary growths under the scalp.

Mr. Christopher Heath exhibited and described an Aneurism of the Aorta from a man, aged 45, who had been a soldier. He came in September under Mr. Heath's care, having then a large pulsating tumour of the chest. It was diagnosed as innominate aneurism. The veins on the right side and especially in the neck were enlarged, and there was great dulness. The left pulse was hardly perceptible. There was some dyspnœa, dysphagia, and general distress. An operation having been determined on, he proceeded first to tie the subclavian. There was much venous bleeding, but this was arrested; nevertheless he could find none of the usual guides till he came to a pulsating sac, which he believed to be extension of the disease

along the vessel, and accordingly proceeded to close the wound after plugging well. The plugs were removed on the fifth day; that evening there was a gush of blood; the man became delirious, and died next day. It was found that the aneurism, which was large and sacculated, proceeded from the aorta, and overlapped the innominate in front. The sternum was eroded and the clavicle flattened. The aneurism extended up into the neck, where the incision had been made; it had been reached in the operation and had given way there. The left subclavian was obstructed. He had acted in accordance with previous experience, but he speculated on what might have resulted had he tied the carotid before trying to tie the subclavian.

Mr. Mason, who was present at the operation, testified to its difficulties. He thought the artery lay behind the sac.

Dr. Wilks asked if there was such a thing as innominate aneurism without affection of the aorta. He did not remember to have seen one.

Dr. Moxon was by no means certain that the innominate was not affected in this case. There was evidence that its walls were weakened.

Mr. Heath agreed with Dr. Wilks, but did not think that it mattered Surgically.

Dr. Crisp said there were instances of small aneurisms confined to the innominate. He then proceeded to narrate a case of universal Alopecia. The hair began to fall in September, last year, and, finally, the gentleman lost every hair on his body. There was no apparent cause for this. The nails also became soft. There appeared to be filaments projecting from some of the hair-bulbs left.

Dr. Risdon Bennett said the hair sometimes grew again after extensive loss.

Mr. Nunn thought the case had a syphilitic origin. He had lately seen a somewhat similar case. Mercury does most good.

Dr. Ballard had submitted to the Society the cases of a father and a daughter in whom this occurred quite suddenly, and syphilis was out of the question. Their hair came back.

Mr. Morris exhibited a large Renal Cyst, associated with cancer of the lung and liver. The patient was a male, aged 69, and had hæmaturia two and a half years ago. Next was noticed a tumour near the umbilicus. It was the size of an egg, hard, and with no dulness behind. This increased, and became fluctuating, and was tapped, but no fluid came. By July this year nearly the whole abdomen was filled, and the man, much emaciated, was getting worse. He died this month. The abdomen measured thirty-five inches and a quarter round at the level of the umbilicus. The tumour was tolerably movable, and pushed the intestines downwards, but was not connected with them. The left kidney was removed with it, and nodules of soft cancer were found in the liver, pleura, lung, and kidney. The cyst was connected with the lower part of the right kidney, and the substance, not the pelvis, only was involved. It contained dark-coloured fluid, with broken-down blood.

Mr. Heath asked if there was fluctuation late on in the disease. More than one such case had been operated on in women.

Mr. Morris thought it might have been mistaken for an ovarian tumour; but, when seen in the early stage, did not look like it. There was evident fluctuation.

Dr. John Murray exhibited Intestines from patients, mostly Bavarian soldiers, who had died of acute dysentery at the Hospital at Pont Mages, near Sedan. They presented the features of well-marked cases of the disease; great tumefaction and redness of the mucous membrane of the large intestine, extending to a less extent upwards towards the stomach, which was also congested. The mucous covering of the large intestine, and chiefly of the colon and rectum, was softened, ulcerated in variable-sized patches, and covered with numerous small white aphthous-looking patches. Throughout the mucous membrane was more or less completely gone, patches sometimes the size of an adult hand having sloughed away, exposing the muscular coat of the intestine. Sloughing was a marked feature in most of the cases, with extravasation of blood into the submucous tissue, the intestine, and also the skin. The ileum, towards its lower end, was in a large number of cases ulcerated, but superficially, Peyer's patches being chiefly affected; and there was in addition observed, in not a few, great enlargement of the mesenteric glands and congestion of the spleen. In none was there marked deposit into the patches, as observed in typhoid fever. The intestines contained a greenish feculent fluid mixed with blood, mucus, and the products of disintegrated and inflamed mucous membrane. The symptoms during life in the early stage were those of diarrhœa and general prostration, with moderately high temperature, followed by tenesmus, passing of bloody and mucous stools, increased elevation of temperature, and gastric symptoms, reducing the patient rapidly, and ultimately producing death by exhaustion.

Mr. Hulke referred to the great use of ipecacuan in similar cases in the Crimea.

Dr. Cayley thought the description of these cases did not correspond to that of tropical dysentery, inasmuch as Peyer's patches were involved. They looked more like typhoid.

Mr. Reeves said they had used ipecacuan near Metz. In one case hepatitis occurred.

Dr. Peacock exhibited two specimens of Malformation of the Heart. The first was a case of entire obliteration of the orifice and trunk of the pulmonary artery. This specimen was removed from a cyanotic child, aged 2 years and 3 months, who was an out-patient of Mr. Croft's at St. Thomas's Hospital, and died of cancrum oris. In this case there was a large aperture in the septum of the ventricles, but the separation between the auricles was entire, and the foramen ovale was closed. The ductus arteriosus was largely open and communicated with the pulmonary branches, and the blood had so been conveyed to the lungs. The second case was one of very great contraction of the orifice of the pulmonary artery, with malformation of the valves. The septum of the ventricles was incomplete, but the foramen ovale was closed, and no trace of the ductus arteriosus could be found. In its place, however, there were two large branches given off from the under side of the aorta, near the origin of the left subclavian artery. That on the left side entered the left branch of the pulmonary artery; while that on the right side, though it had probably some communication with the right pulmonary artery, divided into several branches, apparently distributed to the right lung. The orifices of both these vessels were impervious. Dr. Peacock said that cases of this kind of malformation, in which the small size of the pulmonary artery was in part compensated by supplementary branches from the aorta, were not frequently seen. Probably in most such cases, as in this, the ductus arteriosus did not exist, owing to the premature obliteration of the portion of the branchial arch which should form it. The preparation was removed from a boy 17 years of age, who was under Dr. Peacock's care in St. Thomas's Hospital. He had suffered from difficulty of breathing and palpitation of the heart all his life, and was somewhat cyanotic. The existence of contraction of the pulmonary orifice and of an aperture in the septum of the ventricles was surmised during life.

Dr. Fagge exhibited a specimen illustrating Embolism of the Middle Cerebral Artery. The patient was a woman, aged 26. She had suffered from rheumatism, but had been well till four months before her death. When she came in she had lost the power of the right side, but she recovered a little, and was able to say "yes" and "no." She had a loud systolic bruit at the apex. After death, the top of the middle cerebral lobe was softened, and the artery plugged. There was some turbid fluid in the ventricles, and a yellow, cheesy mass, mostly fatty, in the corpus striatum. There were also some vegetations on the mitral valve. He only knew of one case where a cheesy mass was found in the corpus striatum as the result of embolism.

Dr. Bastian thought it rare to find such a condition. The case might give a clue to the course of yellow softening.

Dr. Moxon showed a specimen of Phlegmonous Gastritis, which occurred in a young man as a part of a phlebitis and pyæmia of the portal system of veins. There were three or four abscesses in the submucous coat of the stomach, near its œsophagial part; none of them had burst. The cause of the disease was suppuration in and about the walls of the rectum. This reached and extended in the hæmorrhoidal veins, and had led to a large abscess forming along the portal vein, and entering both the liver and the pancreas, destroying the vein-wall for several inches in length. Dr. Moxon suggested the question how far this grave occurrence corresponds to common fistula in ano, reaching by chance the veins of the rectum, and expressed his belief that such a view would be very insufficient. It is more true to the nature of such a case to regard the man as already in a state nearly or quite reaching pyæmia before the suppuration is set up, so that the suppuration about the rectum meets another constitutional factor, which extends it in the way discovered. The known occurrence of some cases of pyæmia without any wounds in an idiopathic way, reveals the importance of the constitutional factor; as also does the occurrence of pyæmia and puerperal fever from contagion. Indeed, in this case it was open to serious doubt whether all the suppurations were not set up as an idiopathic portal pyæmia, for none of them seemed to be older than the others.

The second case was one of Gastritis occurring in a man who was severely affected with gout, and had died with

utter wasting of the cortex of the kidneys, due to the gout. The question raised by the case was, how far it responded to what is called "gout in the stomach." The stomach was acutely inflamed, deeply reddened, and coated with a pellicle of lymph difficult to remove. A similar inflammation existed in the colon, and here were also two small abscesses in the submucous tissue, with many ulcers and scars, resulting apparently from the bursting of such abscesses. If gout in the stomach truly occurs, it would be expected to put on such an appearance. It should be stated that the man did not during life give any signs of gastric disease that drew attention.

A third case was one of Suppurative Inflammation of the Spleen, in spots distributed through the organ, some of these spots forming small abscesses of the size of peas, and others minute flecks, ramifying in parts, and suggesting capillary phlebitis. The organ came from a man who had died of pneumonia, supervening on a three weeks' illness, that was regarded as relapsing fever. The pneumonia was of a few days' duration, and was not of sufficient extent to kill. The spleen, besides this acute disease, showed old adhesions to its hed. Was it possible that the old disease of the spleen caused the affection of it in the fever to assume this inflammatory form?

Dr. Bristowe exhibited a specimen of Cancer involving the left recurrent Laryngeal Nerve. The patient was a man, aged 49, who suffered from symptoms of cancer of the stomach. He had also loss of voice. When examined by the laryngoscope, the left vocal cord was found to be motionless. After death cancerous disease of the stomach, liver, and lung, was discovered, also a mass below the left lobe of the thyroid and involving the nerve.

OBITUARY.

THE LATE EDWARD LACY, F.R.C.S.

Mr. Lacey, of Poole, a proviucial Surgeon of considerable repute, was born at Salisbury on November 23, 1799. He became M.R.C.S. and L.S.A. in 1822, and in 1852 was elected an Honorary F.R.C.S. He was at one time a Lecturer on Midwifery and the allied subjects at the Manchester Infirmary, and he was formerly Surgeon to the Stockport Infirmary. He contributed several papers to former volumes of this journal. The following notice of Mr. Lacey we extract from the *Bournemouth Paper*:—

"Poole has just lost in Mr. Edward Lacy one who was universally respected as a worthy magistrate, a skilful Surgeon, and a most upright and honourable gentleman. His Professional merits were recognised far and wide. He was distinguished for the care and unremitting attention which he bestowed on his patients, whether poor or rich; and, even since his health had begun to fail, he was always ready, at all hours and in all weathers, to cast aside all considerations of personal comfort at the call of duty. Many an invalid will now miss with bitter regret that familiar face and friendly voice, which were so often associated with a respite from suffering. Mr. Lacy was a Tory of the old school and a staunch churchman, and he never flinched from asserting his principles or voting with his party; but in the cause of charity and kindness all distinctions of creed and politics were forgotten, and he was always amongst the foremost to give his time, his services, and his money to any good work for the benefit of his neighbours. His Medical practice was not confined to the borough, and was conducted in that generous and disinterested spirit which has long been the glory of his Profession. Many of the neighbouring clergy can testify that he never required a fee from his patients in holy orders, and the catholic priests of Poole will gratefully acknowledge that his liberality was not confined to the clergy of his own church. The poor nuns of Stapehill and Spettisbury have lost in Mr. Lacy a generous benefactor, who was always ready to visit and assist them without the hope of any earthly reward. His personal friends require no monument to remind them of his worth, but it is to be hoped that his many friends and patients will combine to do honour to themselves and to him by erecting a modest tablet to his memory in the parish church, in which he was so many years a devout and constant worshipper. He died on October 7, 1870, aged 69."

Cottage Infirmary at Amlwch.—The foundation-stone will be laid within a few days.

MEDICAL NEWS.

Royal College of Physicians of London.—At an extraordinary meeting of the College, on Monday, the 17th inst., the following gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were granted licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery:—

Cooper, Arthur, M.R.C.S., 25, Stamford-street, S.E.
Drew, Alfred Stanbanks, M.R.C.S., Stow-on-the-Wold.
Halket, Laurence John, the Infirmary, Newcastle-on-Tyne.
Harris, Arthur George Rawson, Thames-side, Staines, W.
Mathias, David, M.R.C.S., Cardigan.
Paulson, William, 11, Falmouth-road, S.E.
Symons, Henry Edward, M.R.C.S., St. Bartholomew's Hospital, E.C.
Vachell, Charles Tanfield, M.R.C.S., King's College Hospital, W.C.

The following candidates, having passed in Medicine and Midwifery, will receive the College licence on their obtaining qualifications in Surgery recognised by the College:—

Parsons, Francis John Crane, 5, Heathcote-street, Mecklenburgh-square, W.C.
Vasey, Charles Lyon, 5, Cavendish-place, W.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, October 20, 1870:—

Barker, Richard Henry, Hungerford.
Collins, Philip Tenison, Wednesbury.
Crombie, Alexander, Horley, Sussex.
Hayes, Thomas Crawford, Mitre-court, Fleet-street.
Murphy, Shirley Forster, Ampthill-square, N.W.
Parsons, Francis John Crane, Heathcoate-street, W.C.
Vachell, Charles Tanfield, King's College Hospital.

As an Assistant in Compounding and Dispensing Medicines:

Bannaurd, Henry, 209, Caledonian-road, N.

The following gentlemen also on the same day passed their First Professional Examination:—

Baines, John Ireland, of Guy's Hospital.
Burgess, Edward Arthur, of Guy's Hospital.
Marshall, John, of Guy's Hospital.
Rastrick, Edward Elliott, of Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Abbott, G., L.R.C.P. Lond.—Surgeon to the Leicester Provident Dispensary, *vice* H. Nuttall, Esq., resigned.

Browne, T. Ll., L.R.C.P. Ed.—House-Surgeon to the West London Hospital, *vice* Mr. A. F. Greenhill, resigned.

Davidson, A., M.B.—Lecturer on Pathology at the Liverpool School of Medicine.

Kelsey, W., L.R.C.P. Ed.—House-Surgeon Retford Dispensary, *vice* G. C. Hammond, resigned.

Lee, E. S., M.R.C.S.E.—Assistant House-Surgeon to the West London Hospital, *vice* Mr. T. Ll. Brown, promoted.

Mackenzie, Stephen, M.R.C.S.—Resident Medical Officer to the London Hospital, *vice* R. T. Grubb, M.R.C.S., retired.

MILITARY APPOINTMENTS.

65th Foot.—Staff Surgeon Henry Sherlock to be Surgeon, *vice* William Alexander Davidson, M.D., who exchanges; October 22.

106th Foot.—Staff Surgeon James Kelly to be Surgeon, *vice* William Ferguson, appointed to the staff; October 22.

Medical Department.—Staff Surgeon Robert M'Nab, M.D., having completed twenty years' full-pay service, to be Staff Surgeon-Major, under the provisions of the Royal Warrant of April 1, 1867; September 24—Surgeon William Alexander Davidson, M.D., from the 65th Foot, to be Staff Surgeon, *vice* Henry Sherlock, who exchanges—Surgeon William Ferguson, from the 106th Foot, to be Staff Surgeon, *vice* James Kelly, appointed to the 106th Foot; October 22.

Brevet.—Honorary Assistant-Surgeon Thomas Murray, M.D., Civil Surgeon, Ajmere, to have the honorary rank of Surgeon; October 22.

BIRTHS.

Collins.—On October 19, at Stanley-house, St. Alban's, the wife of Dr. Collins, of a daughter.

Fegan.—On October 22, at 1, Charlton-park-terrace, Old Charlton, S.E., the wife of Richard Fegan, M.D., L.R.C.P., &c., of a son.

Pike.—On October 20, at Weyhill, Hants, the wife of Thelwell Pike, M.D., of a son.

Wotton.—On October 20, at 62, Bedford-gardens, Kensington, W., the wife of Henry Wotton, F.R.C.S.E., of a daughter.

MARRIAGES.

Arnold—Cook.—On October 18, at St. Dunstan's, Stepney, James Arnold, eldest son of the late G. R. Arnold, M.R.C.S., of 17, Hardwick-place, to Elizabeth Sarah, eldest daughter of Mr. J. Cook, of Commercial-road East.

BASSETT—WHITWELL.—On October 15, at the parish church of Lewisham, Kent, John Bassett, Surgeon, of Hockley-hill, Birmingham, to Maria, youngest daughter of the late William Whitwell.

HANERS—HAWETT.—On October 26, at St. Mary's Catholic Church, Wigan, Charles Joseph, second son of Wm. Haners, Esq., of the Beacons, Ingatestone, Essex, to Mary, eldest daughter of Thomas Hawett, Surgeon, Wigan.

PRICE—HEWITT.—On October 22, at the parish church, Queenstown, Henry Talbot Price, Lieut. R.N., second son of Capt. Francis Price, late 19th Regiment, and grandson of the late Sir Rose Price, Bart., of Treigne-vaiguton, Cornwall, to Lizzie Charlotte, second daughter of the late Charles Hewitt, M.D.

REID—BEAMISH.—On October 13, at St. Luke's Church, Cork, Francis J. D. Reid, Esq., 6th Inniskilling Dragoons, eldest son of the late James Reid, Esq., of Millbank-house, Fermoy, to Ellen Catherine, second daughter of William Beamish, M.D., of Cork.

SIMPSON—WELLSTED.—On October 20, at St. Thomas's Church, Hackney-road, Thornton Simpson, M.D., nephew of General Simpson, Lancaster-gate, to Julia, youngest daughter of the Rev. A. A. Wellsted, vicar of St. Thomas's, Hackney-road.

SINCLAIR—HAMILTON.—On September 1, at Simla (from the house of Staff Surgeon T. M. Bleckley, M.A., M.D., LL.B., brother-in-law of the bride), Surgeon Edward Malcolm Sinclair, 20th Brigade Royal Artillery, to Anna Catherine, daughter of Andrew Hamilton, Esq., of 25, Raglan-road, Dublin.

SMITH—CAMPBELL.—On October 18, at No. 11, Bellevue-crescent, Edinburgh, Lieut.-Colonel John Smith, of the Bengal Staff Corps, to Edith Helen, daughter of Duncan Campbell, M.D., of Toronto, Canada.

DEATHS.

BROWN, WILLIAM, Surgeon, late of Upper East Smithfield, at Kentish-town, on October 19, aged 73.

DAGLISH, GEORGE, F.R.C.S., J.P., at Cowling-house, Wigan, on October 20, aged 65.

DIXON, MARY LOUISA, the beloved wife of James Dixon, Esq., lately of Portman-square, and daughter of the late Sir Francis Simpkinson, Q.C., after a long illness, at Albany-villas, Cliftonville, Brighton, on Oct. 22.

PALEY, JAMES, M.D., at 11, Addison-gardens North, Kensington, on October 9, in the 52nd year of his age.

SHIPTON, JOHN, M.R.C.S. Lond., and many years Justice of the Peace, Freemantle, Western Australia, at Ivy-cottage, Cooney-bridge, Barnstaple, on October 20, aged 67.

WHITING, FRANCES ELIZABETH, widow of Charles Whiting, M.R.C.S., L.S.A., of 204, Ebury-street, Pimlico, London, on October 19, after a long and painful illness.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRADFORD INFIRMARY AND DISPENSARY.—Additional Resident Medical Officer; must have both Medical and Surgical qualifications, and be more than 25 years of age. Applications and *copies* of testimonials to Mr. C. Woodcock, Secretary, Low Bridge, Bradford, on or before the 31st inst. Election on November 11.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the "Chairman of the Committee of Management," on or before October 31. Election on December 6.

BRISTOL ROYAL INFIRMARY.—Assistant House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 12.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Dental House-Surgeon. Applications and testimonials to the Hon. Sec. on or before November 2.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Dental Surgeon; must be a Licentiate in Dental Surgery of the Royal College of Surgeons of England. Applications and testimonials to the Honorary Secretary on or before November 8.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon; must be M.R.C.S. Lond., Edin., or Dublin. Applications and testimonials to the Secretary, at Derby, on or before November 5.

EASTERN DISPENSARY, LEMAN-STREET, WHITECHAPEL, E.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 7.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistant; must have a Medical qualification. Applications and testimonials to the Honorary Secretary on or before November 5. Personal attendance will be required on the following Monday, at 4 o'clock p.m.

MIDDLESEX HOSPITAL, BERNERS-STREET, W.—Assistant-Physician. Applications and testimonials to the Weekly Board on or before November 15.

MORPETH DISPENSARY.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

QUEEN ADELAIDE'S DISPENSARY, POLLARD-ROW, BETHNAL-GREEN.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Rev. T. Peckston, 260, Cambridge-road, E., on or before November 1.

WESTERN GENERAL DISPENSARY, 262 AND 264, MARYLEBONE-ROAD, N.W.—Physician; Surgeon Accoucheur; and Surgeon in Ordinary. Candidates must be Fellows or Members of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin. Applications and testimonials to the Secretary on or before November 7.

WHITECHAPEL UNION.—Resident Workhouse Medical Officer. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Vallance, Union Offices, Charles-street, Whitechapel, on or before November 6.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bicester Union.—The Piddington District is vacant; area 5269; population 644; salary £12 per annum.

Eastry Union.—Mr. Henry Shirley has resigned the Ash District; area 8037; population 2559; salary £50 per annum.

Manchester Township.—Mr. John Walsh has resigned the Cathedral District; salary £170 per annum.

Worksop Union.—Mr. John Housley has resigned the Cuckney District; area 7557; population 1439; salary £20 per annum.

APPOINTMENTS.

Banbury Union.—Jeremiah H. MacGreal, L.R.C.P. Edin., M.R.C.S.E., to the Hornton District; John K. Hyde, M.R.C.S.E., L.S.A., to the Bloxham District; Frederick L. Milburn, M.R.C.S.E., L.S.A., to the Swalcliffe District; Clarence L. H. Pemberton, M.R.C.S.E., L.S.A., to the Cropredy District.

Chelsea Parish.—Thomas S. Gell, M.R.C.S.E., L.S.A., M.B., M.C., M.D. Edin., to the Kensal-green District.

Great Ouseburn Union.—Fred. Robt. Clarkson, M.R.C.S. Eng., L.C.P. Dub., to the Green Hammerton District.

Holywell Union.—Albert Hind, L.R.C.S. Edin., L.S.A. Lond., to the Second Whitford District.

Nuneaton Union.—Edwin Peacock, M.R.C.S. Eng., L.S.A., to the Chilvers Coton District.

Ongar Union.—James Robt. White, B.&L.M. Univ. Dub., L.R.C.S. Irel., L.S.A. Lond., to the Second District.

Sevenoaks Union.—Croft George Symons, M.R.C.S.E., L.S.A., to the Fifth District.

Tenterden Union.—Wilton Provis, M.R.C.S. Eng., M.R.C.P. Edin., to the Biddenden District.

Wallingford Union.—Edward Horne, L.S.A., L.R.C.S. Eng., to the Wallingford District and the Workhouse.

West Ashford Union.—Thos. D. Saunders, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., to the Fourth District.

Westbury and Whorwellsdown Union.—Aaron Langley, L.R.C.P., L.R.C.S. Edin., to the Second District.

ROYAL COLLEGE OF SURGEONS.—At a special meeting of the Council of this Institution on Thursday last, Messrs. Henry Hancock, Vice-President of the College, Senior Surgeon to Charing-cross Hospital; F. Le Gros Clark, Surgeon to St. Thomas's Hospital; and W. S. Savory, Surgeon to St. Bartholomew's Hospital, were elected in the vacancies in the Court of Examiners occasioned by the resignation of Sir William Fergusson, Bart., F.R.S., the President of the College, and of Mr. Richard Quain, F.R.S.; and by the expiration of his term of office of Mr. F. C. Skey, C.B., F.R.S., who declined to be put in nomination for re-election.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—At a meeting of the Royal College of Surgeons, on the 19th inst., the following office-bearers were elected for the ensuing year:—*President:* James D. Gillespie, M.D. *Secretary:* James Simson, M.D. *Treasurer:* John Gairdner, M.D. *Librarian:* Archibald Inglis, M.D. *President's Council:* James S. Combe, M.D.; Andrew Wood, M.D.; James Dunsmure, M.D.; James Spence; Henry D. Littlejohn, M.D.; William Walker. *Ex-Officio:* John Gairdner, M.D. *Examiners:* William Dumbreck, M.D.; Archibald Inglis, M.D.; Robert Omond, M.D.; James Dunsmure, M.D.; Peter David Handyside, M.D.; James D. Gillespie, M.D.; Henry D. Littlejohn, M.D.; Patrick H. Watson, M.D.; David Wilson, M.D.; John Smith, M.D.; D. M. C. L. Argyll Robertson, M.D.; Joseph Bell, M.D. *Assessors to Examiners:* James S. Combe, M.D.; William Brown; James Spence; James Simson, M.D. *Conservator of Museum:* James B. Pettigrew, M.D. *Officer:* John Dickie. *Doorkeeper of Museum:* James Grandison. At the same meeting, Dr. Andrew Wood was unanimously elected representative of the College in the General Council of Medical Education and Registration of the United Kingdom, for the period of three years from the 8th inst.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual stated meeting of the College, held on St. Luke's day, the following officers were elected for the year:—*President:* Dr. Banks. *Censors:* Dr. Gordon (*Vice-President*); Dr. Hayden; Dr. Walter G. Smith; Dr. Kingland. *Examiners in Midwifery:* Dr. Atthill; Dr. Johnston. *Professor of Medical Jurisprudence:* Mr. Travers. *Treasurer:* Dr. Dwyer. *Registrar:* Dr. James Little.

MEDICAL STUDENTS.—There has been a slight addition to the number of students who have been allowed to register since the list published last week, which now gives two more new entries to Guy's Hospital, increasing the number of "freshmen" at that institution to 104, another to the London Hospital, making the number 24, and another to the Charing-cross Hospital, increasing the number to 10. The total number, therefore, of gentlemen pursuing their Hospital studies in this metropolis is now 1309, including a small number of dental students.

Mr. W. B. Langmore, Surgeon to Whitecross-street Prison, is to receive a gratuity of £400 by way of compensation for the loss of his appointment occasioned by the abolition of the prison.

Mr. John S. Keddell has obtained a superannuation allowance of £40 per annum (the highest that could be given) on resigning as Medical Officer for the Minster District of the Sheppey Union.

Birmingham General Hospital.—A vacancy has been declared in the Surgical staff of this Hospital, and we learn that Mr. Lawson Tait is a candidate.

Hospital Sunday in Manchester has been fixed for the third Sunday in December, when a more extended effort is to be made than hitherto; it is proposed to embrace a circuit of thirty miles.

The Medical Council.—At the meeting of the Council of the Royal College of Surgeons, summoned for Thursday next, Mr. John Gay's motion will come on for discussion. It is to the effect that the College is entitled to a greater number of representatives in the General Council of Medical Education and Registration than that assigned to it by the Medical Act of 1858; and that, in any increase of the number, provision should be made that one at least of the representatives of the College should be elected by the Fellows and Members.

The Contagious Diseases Acts at Canterbury.—The authorities charged with carrying out the provisions of the Contagious Diseases Acts in Canterbury report the following results from January 21, when the Act was first applied in that city, to the 22nd inst., a period of ten months:—Number of women registered, 133; left the district, 35; married, 3; entered homes, 11; restored to friends, 24; died, 1; remaining on register, 56; examined and found free from disease, 304; admitted to Hospital, 64; discharged from Hospital, 35; ditto, incurable, 1; prosecuted before magistrates, 39.

Cruelty to a Lunatic.—Jane Armstrong, of Hendon, a middle-aged woman, has been committed by the Sunderland magistrates for keeping a lunatic for profit without being licenced, and for cruelty to the lunatic, one Mrs. Hobson. The police visited the house, where there was no chair, table, or other furniture; and the atmosphere of the room was loathsome. A strap was found, with which the defendant said she was in the habit of fastening the lunatic to the bedstead when she was unruly, which was not often.

The Herefordshire Medical Society held its annual general meeting on the 12th. It was well attended. In the report the committee take a review of the political position of the Profession during the past year. It laments the defeat of the Government "Amended Medical Act," approves of the "one faculty" system, and demands that the Profession should be fully represented; and, as a matter of economy and business-like efficiency, the members composing the General Medical Council should be much less numerous than they are at present. The committee thus express their opinion on the modes of election, both of which, however, are beset with difficulties:—"The mode in which the Profession should be represented is the only point which need now be noticed. The best and most simple plan—and therefore the right one—would be for the general Profession to choose its representatives to the Council, for the colleges or corporations to which they severally belong; or, if this may not be, then certainly the Profession should choose a certain number of representatives on the Council by general vote; and this would be aided, doubtless, by a considerable reduction in the number of representatives from the corporations themselves." Financially, the association is in a flourishing condition.

Vaccination.—A deputation, appointed at a public meeting at Darlington, convened by the mayor, attended the last meeting of the Board of Guardians, and presented a resolution, expressing a wish that the guardians should defer further proceedings against parents for not having had their children vaccinated till after the promised Parliamentary inquiry had been held and the result made known. The deputation addressed the Board at considerable length, in answer to which the chairman simply stated that "their statements would receive that consideration which their importance demanded."

West Kent Medico-Chirurgical Society.—On Thursday evening, October 20, the first meeting of the fifteenth session of the above Society was held at the Royal Kent Dispensary, Greenwich-road, when the following gentlemen were unanimously elected officers for the ensuing year:—*President:* Edward Clapton, M.D., F.R.C.P. *Vice-Presidents:* John Moulden Burton, F.R.C.S.; John C. Thorowgood, M.D., M.R.C.P. *Council:* John Anderson, M.D.; William Carr, M.D.; Samuel Giles, B.A., M.D.; Ralph Gooding, B.A., M.D.; William Lockhart, F.R.C.S.; Charles Nind, M.R.C.S.; Arthur Roper, M.R.C.S. *Treasurer:* Prior Purvis, M.D. *Secretary:* John Prior Purvis, M.R.C.S. *Librarian:* G. G. Bothwell, L.R.C.P.E., M.R.C.S. Votes of thanks were unanimously accorded to Dr. Purvis and Mr. Roper, the retiring President and Secretary. Dr. Clapton then took the chair as President, and proceeded to deliver the inaugural address. He first of all alluded with deep regret, and in graceful terms, to the lamented death of the late Dr. Rooke, of the Seamen's Hospital, for some years a member of the Society, and a frequent attendant at, and contributor to, its meetings. He then proceeded to comment upon the protracted and destructive outbreak of scarlatina, and the apparent powerlessness of hygienic measures to check its progress, and in connexion therewith to the researches of Dr. Burdon Sanderson into the nature of zymotic poisons, and also the views of Professor Tyndall and others as to the nature of disease germs. The recent outbreak of relapsing fever, the antiseptic treatment of diseases, and the administration of the out-patient departments of general Hospitals, were also severally alluded to and ably commented upon. An interesting discussion ensued, in which Dr. Purvis, Mr. Mitchell, Dr. Carr, Dr. Gooding, Mr. Lockhart, etc., took part, and the President replied. A vote of thanks was unanimously given to Dr. Clapton for his highly interesting and instructive address, and the Society adjourned. The next meeting will be held on Friday, November 11, at which Dr. Carr will read a paper.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Erratum.—Dr. Robert Fowler asks us to correct a slip of the pen in his letter on the Registration of Disease, which we published last week. He described Mr. Goschen as President of the Board of Works, instead of President of the Poor-law Board.

Studens.—South Wales.—The only means of obtaining these papers would be to obtain the calendar of the College. If you know anyone who has been in, he might lend them to you.

Vaccination Certificates.—1. Anyone, Medical or lay, may set up an institution for vaccination; he may vaccinate all comers, gratuitously or otherwise, who choose to be vaccinated. 2. The question, What is a public institution? admits of some doubt; but any institution supported by the public for the public benefit, open to all comers, and not the property of individuals, nor entirely for their profit, is a public institution. 3. The validity of a certificate qualifying a person to act as a public vaccinator within the meaning of the Vaccination Act must depend altogether upon the Medical department of the Privy Council, whether they recognise it or not.

A Preston Man.—The person mentioned is an unregistered Practitioner (see "Proceedings of the College" in this day's *Medical Times and Gazette.*)

Cuvier, Birmingham.—Professor Flower, of the College of Surgeons, is *not* a candidate for the vacant chair.

R. H., Brighton.—If you come to town at once, the authorities of the College and Hall will no doubt, under the circumstances mentioned, allow you to make good your registration.

Medical Attendance on the Families of Deceased Medical Men.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you, or any of your correspondents, kindly inform me what is customary in regard to charging the widows and families of deceased Medical men? I am frequently called to attend such; and some in very good circumstances expect attendance and advice at any time free of charge; while others in indifferent circumstances wish to pay. An answer will greatly oblige. I am, &c.

October 25. An Inquirer.

A. B. C.—In our next.

L. B.—The subscription is six guineas entrance and three guineas per annum.

St. Thomas's.—The Medical officers receive an annual *honorarium.*

Leicester.—By application to the Poor-law Board.

Inquirer.—Dr. Marshall Hall practised at Nottingham before he settled in London. He was never connected with a metropolitan Hospital. He lectured at the Sydenham College.

Accoucheur.—The contract is binding; but under the circumstances of the case it would not be advisable to enforce its fulfilment by legal means.

Statist.—Dr. Heysham was the author of the famous Carlisle statistics.

Reader.—The line is in one of Pope's essays:—

"Garth did not write his own dispensary."

Vaccinator.—Dr. Blanc, we believe, has ceased to carry on his experiments.

Manchester.—Ninety-eight students have registered this session; of these thirty-six are new entries.

Liverpool.—New students October, 1870, 28; second and third years' students, 33; total in attendance, 61.

Glasgow.—We cannot endorse the opinions of Dr. Black and his coadjutors, that any valid objection could be raised against Dr. Adams's candidature to the office of President of the Glasgow Medico-Chirurgical Society, on the *mere* ground of his being connected with the Ophthalmic Institution. Dr. Adams had long been connected with the county, and had rendered it good service.

POISONING BY CARBOLIC ACID.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having noticed in your paper of to-day's date a report of a case of poisoning by carbolic acid, with the remark appended by Dr. A. Wiltshire, respecting the advisability of having the antidote described on each bottle of carbolic acid, we beg to call your attention to the fact that "on the label of every bottle of carbolic acid issued by us for disinfecting purposes the antidote is clearly printed;" and, further, that "every circular respecting it has also the antidote prominently printed thereon." We enclose copies of the label and circular, and trust that you will publish the antidote. We are, &c. F. C. CALVERT AND CO.

Tower Chemical Works, Bradford, Manchester, Oct. 22.

*** The following is the notice to which our correspondents refer :—"*Note.*—If any acid should fall on the hand, its caustic effect can quickly be remedied by washing with oil. If taken internally by mistake, large doses of sweet oil and castor oil should be at once administered."

COMMUNICATIONS have been received from—

A SUBSCRIBER; Dr. EDWARDS CRISP; Dr. W. SEDGWICK SAUNDERS; Mr. J. ROBERTSON; Mr. T. BRYANT; Dr. WHITMORE; Mr. H. F. NATHAN; Dr. BETHELHEIM; Mr. G. AAMATAGE; Dr. RUSSELL; Messrs. F. C. CALVERT and Co.; Mr. H. AARNOTT: Dr. J. C. STEELE; Mr. J. P. PURVIS; Dr. ROBERT FOWLER; Dr. E. SYMES THOMPSON; Mr. G. ABBOTT; Mr. N. C. DOBSON; Rev. C. H. DAVIS; Dr. J. SAWYER; Mr. G. SOUTHAM; Mr. STEPHEN MACKENZIE; Mr. HARRISON; Dr. GERVIS; Dr. PEACOCK; Dr. MOXON; Dr. OGLE; Mr. J CHATTO; Mr. JOHNSON SMITH; AN INQUISER; Mr. N. ALCOCK; Dr. FEARNSIDE; STUDENS; SOUTH WALES; Mr. N. F. HORNE; Dr. BARCLAY.

BOOKS RECEIVED—

History of a Case of Fracture of the Femur, bearing chiefly on the Diagnosis of such Lesions, by James Morton, M.D.—Transactions of the Odontological Society, June—Statistical Report of the Health of the Navy for the Year 1868—Glasgow Medical Examiner, October—The Life of John Heysham, M.D., edited by Henry Lonsdale, M.D.—Sawyer on Physical Diagnosis—Dr. Matthews Duncan on the Mortality of Childbed and Maternity Hospitals.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—New York Medical Gazette—Illustrated Review—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

October 29. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

31. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Adjourned Discussion on Dr. Richardson's Paper "On the Medical Aspects of the Germ Theory."

November 1. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

ANTHROPOLOGICAL SOCIETY, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Mr. W. Adams, "Exostosis from Angle of Scapula." Mr. Nunn, "Atrophy of Uterine Walls, with Intra-uterine Fibroid Growth." Mr. F. Mason, "Congenital Papillary Tumour." Mr. Henry Arnott, "Blood Tumour of Scrotum, Cancer of, and Imperfectly Descended Testis." Dr. Dickinson (for Mr. Duncan), "Parts of a Watch removed from a Wound inflicted at the Battle of Sedan." Dr. Whipham, "Rupture of the Transverse Ligament of the Atlas."

12, HINDE-STREET, W., 5 p.m. Lectures on Experimental and Practical Medicine, by Dr. B. W. Richardson, F.R.S. Lecture 5: The Conditions of Disease demanding Abstraction of Blood.

2. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

OBSTETRICAL SOCIETY, 8 p.m. Dr. W. Martyn, "On the Management of Childbed with a View to promote Successful Suckling." Mr. Coward (Christchurch, New Zealand), "A Case of Inversion of the Uterus." Dr. Tracy, "A Short History and Description of the Lying-in Hospital at Melbourne, Australia." And other Papers, by Mr. Mitchell and Dr. Mendenhall.

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

HARVEIAN SOCIETY, 8 p.m. Meeting.

4. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Meeting of Council.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 22, 1870.

BIRTHS.

Births of Boys, 1027; Girls, 1045; Total, 2072.
Average of 10 corresponding weeks, 1860-69, 1978·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	707	627	1334
Average of the ten years 1860-69	660·5	622·9	1283·4
Average corrected to increased population	...	...	1411
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	...	2	32	...	5	...	1	2	5
North ...	618210	4	6	45	2	4	5	11	...	5
Central ...	383321	1	3	13	1	2	1	3	...	2
East	571158	10	2	32	...	5	3	2	1	6
South	773175	2	7	70	5	8	3	9	...	7
Total	2803989	17	20	192	8	24	12	26	3	25

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·464 in.
Mean temperature	49·7°
Highest point of thermometer	59·9°
Lowest point of thermometer	39·8°
Mean dew-point temperature	45·7°
General direction of wind	S.W.
Whole amount of rain in the week	1·38 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 22, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Oct. 22.	Deaths Registered during the week ending Oct. 22.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2072	1334	59·9	39·8	49·7	9·83	1·38	3·50
Portsmouth ...	122084	12·8	55	39	62·8	31·3	47·2	8·44	1·83	4·65
Norwich	81087	10·9	55	40	59·0	37·8	48·6	9·22	1·53	3·89
Bristol	171382	36·6	107	100	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	58	23	58·9	35·6	47·3	8·50	1·07	2·72
Birmingham ...	369604	47·2	247	116	60·4	35·6	48·2	9·00	1·66	4·21
Leicester	97427	30·4	93	65	59·7	35·2	47·8	8·78	1·66	4·21
Nottingham ...	88888	44·5	45	34	61·0	35·7	47·9	8·83	1·10	2·79
Liverpool	517567	101·3	322	353	59·0	41·0	49·4	9·66	1·63	4·14
Manchester ...	374993	83·6	210	145	59·0	36·0	46·7	8·16	2·61	6·63
Salford	121580	23·5	91	55	61·1	37·6	47·5	8·61	2·50	6·35
Bradford	143197	21·7	109	79	59·5	38·1	48·0	8·89	1·17	2·97
Leeds	259527	12·0	227	141	61·0	41·0	48·9	9·39	1·15	2·92
Sheffield	247378	10·8	201	90	59·0	39·1	48·6	9·22	1·94	4·93
Hull	130869	36·7	109	52	59·0	35·0	46·9	8·28	1·10	2·69
Sunderland ...	100979	30·5	58	31	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	90	51	53·0	40·0	46·2	7·89	1·34	3·40
Edinburgh	178970	40·4	143	65	59·7	38·0	47·5	8·61	0·60	1·52
Glasgow	468189	92·5	325	222	56·4	36·0	47·3	8·50	1·58	4·01
Dublin (City, etc.*)	321540	33·0	130	139	61·9	36·0	50·5	10·28	1·07	2·72
Total of 20 Towns in United Kingd'm	7216325	33·8	4729	3218	62·8	31·3	48·0	8·89	1·50	3·81
Paris—Week ending Oct. 15	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Oct. 15 ...	622087	167	...	302	...	...	51·4	10·75	...	...
Berlin—Week ending Oct. 20 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·464 in. The highest barometrical reading was 29·84 in. on Friday, and the lowest was 29·06 in. on Sunday.

The general direction of the wind was S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON DERMATOLOGY.

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,
Professor of Dermatology in the Royal College of Surgeons.

Lecture VI.

(*Continued from page 474.*)

Disease of the Follicles of the Hair.—Next to the hair itself we have to consider such morbid changes as are referable to the follicle in which the hair is implanted. In one series of instances this change is a mere loss of tone, of contractile power, of the follicle, and the contents of the follicle—that is, the exuviæ of its epithelium, together with the sebaceous substance poured into it at its neck, are *retained* instead of being expelled. In another the pathological process is *developmental*, consisting in the development and growth of imperfect and incomplete follicles under the influence of an abnormal stimulus, and producing what may be termed, spurious follicles. Then the morbid process may be in its nature *nutritive*, affecting the epithelium of the follicles; and, fourthly, there may be inflammation of the follicles, in which the interfollicular tissues more or less participate. In a tabular form we may arrange the affections of the hair-follicles as follows:—

c. Disease of Follicles.
- Comedo.
- Tumores folliculares.
- Cornua setosa.
- Cornua sebacea.
- Tubercula miliaria.
- Tumores cystici.
- Papulæ corneæ.
- Epithelioma.
- Phytosis favosa seu favus.
- Folliculitis.
- Xerasia capitis.
- Akne.
- Gutta rosea.
- Sykosis.
- Kerion.

Of *retention* of the proper excreta of the follicle tending to accumulation we have a familiar example in the *comedo* or grub, so commonly seen on the face, and so frequently associated with akne—in fact, giving a subjective denomination to one of the forms of the latter—namely, akne punctata. The most careless examination of the affection is sufficient to inform us that the epidermic and sebaceous substance constituting the chief bulk of the comedo is one while soft and white and capable of being fashioned into a cylindrical figure by expression through the mouth of the follicle, and another while hard and yellowish and more or less globular, in fact, partially converted into horn by desiccation and long detention. This fact is important to the future development of our subject, inasmuch as it affords an illustration of the changes which the sebaceous excreta are capable of undergoing by simple inspissation, pressure, and desiccation, and confirms the analogy subsisting between sebaceous substance and horn.

When the comedo is soft, it is very commonly the habitat of a minute animalcule, elaborately described by Gustav Simon, in 1842, under the name of *acarus folliculorum*, and afterwards by myself, in the same year, in continuation of the researches of Simon, as the *entozoon folliculorum* and *steatozoon folliculorum*, while to these appellations another name was contributed by Owen, in his lectures delivered in this College, in the spring of 1843—namely, *demodex folliculorum*. The number of these animalcules found in each follicle ranges between one or two and ten or twelve, or perhaps more; they are met with most commonly near the outlet of the follicle, with their heads directed inwards. They feed on the sebaceous substance; they deposit therein their ova; and the ova pass through a succession of transformations before the perfect development of the animalcule is attained. The origin of the animalcules is still a mystery. They occur in quadrupeds as well as in man; they create no irritation; indeed, from their position they can hardly come in contact with the lining of the follicle; and their purpose in creation would seem, in fact, to be the appropriation of the waste sebaceous substance, which otherwise might become a source of inconvenience and disease.(a)

The examination of the contents of comedones affords evidence of a resistance existing at the neck of the follicle which is absent at a greater depth, and consequently of the presence of a structure which will favour the accumulation of sebaceous matter within the follicles when the coats of the follicles are wanting in power to expel their contents. In this physiological preamble we have the key to the explanation of the accumulation of sebaceous substance and epithelial exuviæ within the follicles. It is obvious that, as soon as the follicle is dilated to a breadth exceeding that of the mouth of the follicle, the impediment to the expulsion of the sebaceous substance will be increased, and will go on increasing in proportion to that of the mass of the accumulation. It is in this way that are produced *follicular tumours*, that may vary in size from that of a millet seed to that of the segment of a large orange. Originally they are a simple dilatation of the follicle from accumulation of sebaceous substance and the epithelial exuviæ of its inner wall. The follicle grows with its contents, and becomes hypertrophic. At a later period, the accumulation owes its increase to the epithelium rather than to the sebiparous gland, and the latter is very probably obliterated by the progress of growth and continuance of pressure. Sometimes the aperture of the follicle is more or less dilated by the accumulation within; at other times it undergoes no perceptible change; but it may always be discovered by close examination, for it is never completely obliterated.

It may be worth while to retrace our steps a little, to assure ourselves of two points in connection with torpid follicles and their contents. The first of these is that the contents themselves are twofold—namely, exuviated epithelium and sebaceous substance. The second is, that these contents may be soft and compressible, or they may be firm and hard, and resemble horn. No doubt they may present modifications in different parts of the body; there may be a larger proportion of epithelial exuviæ in one place, and a larger proportion of sebaceous matter in another, but with this at present we have nothing to do. I simply wish to draw attention to the fact that the excreta of the follicles may, under certain circumstances, become dried up and hardened, and converted into dense horny cylinders, which one while resemble *horny spines* issuing from the pores of the skin, and another while *isolated horns*, which are small or large in harmony with the size of the aperture through which they are extruded, and the quantity of the inspissated contents. Within the cavity of the follicle the excreta may be sufficiently soft to admit of extrusion; the extruded portion desiccates and hardens, fresh matter is extruded successively and gradually, and in this manner the so-called *human horns* may be produced, and these horns are sometimes of considerable circumference and considerable length. There is one other way besides by which horns are developed, and is that which is usually in operation in the growth of the larger horns. The integument covering the follicular tumour is attenuated by continued distension from within, and is at the same time liable to be inflamed by exterior irritation; ulceration follows as a natural consequence, and then the contents of the tumour find a sudden exit, and harden into a mass often of extraordinary size.

Development. Our next investigation carries us back to the history of the development of the follicles. They begin by the aggregation of small masses of cells in relation with the rete mucosum, and these little masses grow inwards, pressing the derma before them, and pushing its tissues aside, until they occupy their proper place in the substance of the corium. But this process is not restricted to the embryo or to the fœtus alone. It may be continued in infancy and youth, and it may be manifested at almost any period of life under the impulse of what I may term a developmental stimulus. When this developmental stimulus is present, as it is sometimes found to exist in young persons, and particularly on the face, a number of white pearl-like grains are seen in the skin—grains which have been compared to the millet (*tubercula miliaria*), or to small seed-pearls, pearly tubercles. These little masses generally retain for a permanence their globular figure, and physiologically must be regarded as aborted follicles, folliculi spurii. In other situations, and especially on the scalp, they may grow into follicles of considerable size; and these hypertrophic tumours, becoming distended by degrees with epithelial exuviæ and sebaceous substance mingled with hairs, are the *encysted tumours* with which we are familiar, the difference of their contents depending chiefly upon decomposing changes in the substance itself.

Altered secretion of the follicles may best be considered with

(a) Hebra informs me that the steatozoon was discovered by Henle in 1841 in the ceruminous glands.

the group of steatopathic affections; but under the head of altered nutrition of the epithelium we have brought under our observation simple hypertrophy of the epidermis, and metamorphosis of the epithelium of the lining of the follicle. It sometimes happens that the little horny plug of epidermis which occupies the mouth of the follicle manifests an increase of growth, without any apparent change in the surrounding parts. I have described this epidermic hypertrophy as giving rise to a papula larger than that of lichen, hemispherical in figure, yellowish, smooth, and transparent, and perforated in the centre by the aperture of the pore. The papulæ are distinctly horny, *papulæ corneæ*, *papulæ epidermidis*, and may be compared to minute corns, more especially when they occur upon parts covered by a thick epidermis, such as the palm of the hands, where they present the same relation to the pores of the sudatory ducts that, in other situations, they do to the hair follicles. In one case I saw the forearms covered with some hundreds of these horny papulæ, without redness or any sign whatever of disturbance of the circulation of the skin.

Another modification of nutrition taking its origin at the neck of the follicle, and possibly in close relation with the excretory duct of the sebiparous gland, is that more grave metamorphosis of the epithelium, or that tendency to development in excess of cells related in structure to epithelium, which is termed *epithelioma*. These cells increase in size by a slow process of proliferation, and give rise to round transparent tubercles, small at first, but gradually growing by the circumference, and crossed here and there by a scanty network of minute blood-vessels. Then the tubercles soften in the centre, and the softened matter dries into a thin scab, around the circumference of which the transparent hyaline-looking and rounded border of the epithelial formation is very perceptible. The subsequent progress of these tubercles transfers them to the group of carcinomatous affections, in relation with which they have been already mentioned.

Phytosis favosa, or simply favus, is a phytiform degeneration of the epidermis, beginning in the epithelium of the follicle, and spreading for a short distance into the neighbouring rete mucosum. Sometimes the disease attacks isolated follicles; at other times one or several clusters are formed, and spread by degrees to the greater part or to the whole of the head. In the case of a single follicle, the morbid matter forms a shallow cup, bordered by a prominent lip, and pierced in the centre by the hair issuing from the follicle; and in a cluster, where the cups are confluent, the concavities of the surface suggest the idea which has given origin to the name of the affection—namely, "honeycomb." The matter of favus is yellow in colour, whitening with age, and its quantity varies in amount. The disease is rare in this country, and still more rare in its attack upon the naked portions of the body. On the Continent of Europe and in America it is more common; and it sometimes spreads over the body and limbs more or less extensively. It was in favus that the phytiform character of the mass was originally discovered; and Gruby, its discoverer, was the first to treat of it as a fungus plant.

To the physiologist and to the pathologist all things appertaining to the organisation are great, and small beginnings are known to be the source of the most stupendous results. The dermatologist will regard the minute hair follicle of the skin with a sentiment akin to affection as he calls to mind its origin, its development, its growth, its structure, its dependencies, and, not a whit less, its diseases. The follicle is an organised individuality, with vessels, nerves, and tissues, and, like other parts, it is subject to inflammation, which, for want of a better word, we may call folliculitis. The inflammation and hyperæmia of a single follicle may be a pigmy consideration only; but when those conditions are present in a larger number, and to a considerable extent, the case is generally troublesome, and sometimes very serious. Folliculitis is frequently chronic, but occasionally acute; as a chronic affection we meet with it on the face of young persons in the form of a punctated rash, *folliculitis punctata*, and our patients are apt to speak of it as a rash under the skin; at other times it is seen on the back of the shoulders and arms, on the forehead, and especially in the eyebrows; there it occurs as an eruption of minute papulæ, each papula being the summit of a follicle loaded with epithelial exuviæ, and having a reddened base. Where the follicles of the eyebrows are attacked the hairs are ejected, and cease to be produced, and this is especially the case in chronic folliculitis of the scalp, which is attended with itching, with desquamation, with dryness and loss of hair, constituting the form of affection which received from the ancients the name of *xerasia*, that is to say *xerasia capitis*.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS ON THE TEMPERATURE OF DISEASE.

By EDWARD LONG FOX, M.D.,
Physician to the Bristol Royal Infirmary.

(*With a coloured Diagram.*)

XI.—DISEASES OF THE GASTRO-INTESTINAL CANAL AND LEUCOCYTHEMIA.

Peritonitis partakes somewhat of the nature of acute serous inflammations, somewhat of the character of toxæmic phenomena, according as it is acute, idiopathic, uncomplicated, or associated with pyæmic conditions, as in many puerperal cases. In the latter case, it may be a symptom of a general disease, as is frequently the case when the disease is universal over the whole peritoneum; or a mere local disease when it is confined to the part of the serous membrane in the immediate neighbourhood of the uterus, in which case it has no more general meaning than the local inflammation of the peritoneum covering a diseased liver or spleen, or forming the base of an ulcer of the intestinal mucous membrane that has advanced to the very verge of perforation.

It may be connected with enteritis, with dysentery, with tubercle, and cancer of the peritoneum, and, of course, may form one of the secondary results of injury.

The temperature will vary according to the circumstances under which inflammation of the peritoneum has taken place.

Thus, the highest temperatures are generally found in puerperal cases with purulent infection, and are phenomena of very serious import. Not that the height alone points to a fatal termination, but in these cases a great elevation of temperature is often accompanied by great and irregular remissions, and the whole thermometric course shows a great similarity to that irregularity of elevation and remission that we shall see, in a future paper, to belong to pyæmia.

The temperature of peritonitis complicating acute tubercle of the peritoneum is merged in the temperature of the tuberculosis; as a complication of cancer of the same region, peritonitis seems very slightly to raise the temperature above that of the malignant disease itself.

When idiopathic, or connected with inflammatory disease of a subjacent organ, it may be accompanied by a high temperature—104° (40° C.)—in the evening, or sometimes by one that is normal, or even below the normal. This seems partly to be connected with the extent of the surface implicated, and partly, perhaps, with the position of the effused products. A temperature in this disease decidedly below the normal is, as Wünderlich has pointed out, highly suspicious; and when this occurs where no blood-poisoning exists, it may depend on the peritoneum being especially affected in the immediate neighbourhood of the solar plexus. This, however, is a mere hypothesis.

Just as the idiopathic form of the disease may occur with great elevation of temperature, or without any rise above the normal point, so it is impossible to give a prognosis as to the gravity of the case from the temperature alone. Death ensues at any point between a high temperature and one that is subnormal. The worst sign is a very irregular alternation of great elevations and low remissions. The most satisfactory sign is the gradual subsidence of the temperature to the normal point within two or three weeks of the commencement of the disease. Very often a certain amount of pyrexia is continued during many weeks before the patient is thoroughly convalescent.

Case 76 was an instance of ordinary peritonitis. A woman, aged 27, not admitted until the tenth day of the disease, but even then showing a temperature above 102° (38·8° C.), which gradually subsided to 100° (37·7° C.) on the next day, and on the fifteenth day of the disease recurred to the normal point in the morning with slight evening exacerbation. The disease was idiopathic.

Case 77 was an example of the disease in a woman, aged 36, who was also at the time the subject of uterine tumour. On admission she gave an account of having been knocked down by two women some three weeks before, who had kneeled on her abdomen, and hurt her very much. The thermometer is of the utmost help to diagnosis in cases of abdominal pain and tenderness after parturition. In such circumstances a normal temperature is, I believe, a sure sign that

the peritoneum is unaffected. The temperature is scarcely raised above the normal point where the layers of peritoneum are adherent by the gradual pressure against the anterior walls of subjacent organs that slowly increase in bulk. This was very remarkably the case in a patient who lingered for four years with very gradually increasing cysto-sarcomatous disease of the ovaries, where the mass had filled the whole of the abdomen, having pushed the diaphragm and the abdominal viscera far up under the ribs, and being adherent over its whole anterior surface to the abdominal walls.

On the other hand, the temperature exceeded 104° (40° C.) in another case, where the mesenteric glands had suppurated, and one of them having given way, had set up a very intense and very rapid peritonitis, which proved fatal in three days.

Dyspepsia.—There is no elevation of temperature in atonic dyspepsia uncomplicated with other maladies, or in those functional disorders of the stomach that result from perverted innervation.

The case is, however, altered in acute and chronic gastric catarrh. In several forms of acute catarrh the temperature may rise to a high point, although generally for no long period. This is especially to be noted in acute gastritis, the effect of irritant poisons; but it is also seen in acute catarrh connected with gout, and with the exanthemata. In such cases, however, it is impossible to separate the thermometric condition induced by the gastric catarrh from that of the gouty or the eruptive disease. Even when other complicating conditions are excluded, there remains a class of cases of acute catarrh of the stomach, depending either upon alcoholic excess or the ingestion of irritating articles of food, in which the pyrexia may be for a time somewhat intense—102° (38·8° C.) or more in the evening, with very slight morning remissions—and in which the pyrexia seems to depend wholly upon the condition of the stomach.

Acute gastric catarrh will generally be easily recognisable without the aid of the thermometer; but the diagnosis between atonic dyspepsia or some of the forms of perverted innervation and chronic gastric catarrh is not always so easy, and here the thermometer will be of essential service. In chronic gastric catarrh, however, uncomplicated with cancer or with tubercle, which it so frequently accompanies, the temperature of the body is only slightly raised above the normal point. If, in addition to the epigastric oppression, the flatulent distension, the nausea, the morbid tongue, the thirst, and the constipation, the temperature persists at from 99° (37·2° C.) to 100° (37·7° C.), with intervals of complete remission, in which all the morbid symptoms disappear, to return on the slightest indiscretion in diet, the disease is chronic gastric catarrh. The duration of the pyrexia in this condition is very indefinite.

Case 78 was an instance of gastric ulcer in a woman aged 62, in whom the disease was not connected with cancer. On her first admission she lost a very considerable amount of blood, both by vomiting and by stool, and complained of a good deal of epigastric pain, and of much thirst. In spite of the hæmorrhage, the temperature remained from 99° (37·2° C.) to 100° (37·7° C.) for several weeks.

In hæmatemesis the thermometer is, to a certain extent, a guide as to the pathological condition. The most formidable instance of hæmatemesis I ever witnessed was accompanied by a temperature little above 97° (36·1° C.), and was caused by the giving way of some branch either of the splenic or the gastro-epiploic vessels, congested, with all the other tributaries of the portal vein, by passive congestion of the liver, consequent on very marked cardiac debility. Gastric hæmorrhage will always be accompanied by a temperature more or less elevated if it proceed from ulceration that depends on acute or chronic catarrh of the stomach. A normal temperature may, however, co-exist with rather extensive ulceration of the mucous membrane connected with cancer of the stomach.

The very definition of colic precludes any remarks on its temperature. Niemeyer states that "by colic, in the wider sense, we understand, besides the nervous affections of the mesenteric plexus, all painful affections of the intestines which are not caused by inflammation or textural changes of the intestinal walls." In such circumstances the thermometer aids diagnosis negatively. If the temperature is above that of health, the disease is not colic, but enteritis, ileus, peritonitis, or some other inflammatory malady.

Enteritis, colitis (whether simple or dysenteric), and some forms of ileus, are the intestinal diseases in which any elevation of temperature is to be noted.

Acute intestinal catarrh may involve the mucous membrane only, or the deeper structures as well. It may be only a muco-enteritis, resulting in congestion and friability of the mucous membrane, with some swelling of the glands, or in the pouring out of a tenacious mucus, or in the formation of superficial diphtheritic sloughs; it may, however, lead to ulceration in its severer forms. In children, muco-enteritis is accompanied by pyrexia, which sometimes is of considerable intensity, and is apt to assume a decidedly remittent form. Infantile remittent fever is, I believe, always enteric fever, and differs markedly in its pathological appearances from the present malady. But the temperature in this muco-enteritis in children is subject to great regularity in its morning remissions; so much so that the thermometer often registers a normal morning temperature, and the little patient seems perfectly well, with a return of morbid symptoms and elevation of temperature as the evening approaches. In the severe forms, in which either diffused or follicular ulcers are formed, the fever is high, and there is generally much less morning remission.

Case 79 was an instance of inflammation of the cæcum, but there is no record of the temperature of the illness of the first four days before admission into Hospital. On the fifth day of illness eighteen leeches were applied over the seat of abdominal pain, without affecting the temperature of the body in any direct manner. In this case the mucous membrane was probably the only structure inflamed.

The varieties of enteritis, and the consequent variations of temperature, are so multiform, that, although the thermometer will serve to distinguish them from colic, it will not suffice to distinguish them from peritonitis. The absence of intense pain and tenderness in these cases of enteritis, the absence also of vomiting, generally of constipation, of excessive tympanitis, and of the small and frequent pulse of peritonitis must help us in the diagnosis.

In ileus the temperature is generally not raised at the commencement of the disease. It is only when the intestine begins to feel the result of the obstruction that the signs of inflammation manifest themselves. These will appear after a shorter or longer period, according to the nature and seat of the mechanical obstruction. The form in which the malady is caused, by a turn of the colon on itself, has seemed to me to be longer in developing pyrexial symptoms than when inflammation is the result of invagination of the bowel. As the disease progresses, the thermometer will serve to show the inflammatory complication, but will be useless by itself in the determination of the precise form of disease. It is to be remembered, also, that internal strangulation may be one of the results of peritonitis, and, therefore, that the elevation of temperature due to the peritonitis will precede the pyrexia, which results from the internal strangulation.

The concomitant symptoms, plus the thermometer, will generally suffice for a differential diagnosis.

It is not more reasonable to speak of dysentery as one of the diseases of the colon than it would be to speak of enteric fever as a species of enteritis; but the anatomical results of the former disease are so nearly connected with colitis that for convenience' sake it may be touched upon here, always with the proviso that it is essentially a general blood disease rather than a lesion of one especial organ.

Acute dysentery is so rare in England that I am not aware that any observations on its temperature have been published. Dr. Aitken merely says—"When the skin is dry and of a pungent heat, the tongue furred and the thirst urgent, the urine scanty and high-coloured, and the pulse increasing in frequency, these are symptoms of increasing danger in dysentery. Throughout the disease there is febrile distress." Niemeyer remarks—"If at first absent, febrile symptoms always come on in the course of the disease. Where the intestinal lesion is moderately intense, the fever has an erethetic or synochal character; the pulse is moderately frequent, full, and hard. But in the highest grades of the disease, the fever acquires an asthenic character very early; the pulse becomes small and very frequent. According to the character of the fever, dysentery has been divided into inflammatory, adynamic, and putrid or typhous."

But chronic dysentery is not unfrequently seen in seaport towns. Case 80 is an example of chronic dysentery, in which only evening observations of the temperature were taken. The patient, a seaman, aged 30, had contracted dysentery in China, five months previously. He had five or six evacuations daily. The evening temperature was above the normal point during the whole time he was under observation, the highest temperature being a little above 101° (38·3° C.). In other cases the evening temperature oscillates between 99° (37·2° C.) and 100° (37·7° C.). The thermometric conditions bear out Niemeyer's expression that chronic dysentery is a slow inflammation.

Leucocythemia.—Case 81 is an instance of this disease. The spleen occupied nearly one-half of the abdominal cavity. The

proportion of white cells in the blood was very large, the emaciation considerable. It is probable that the disease had existed for quite three years. During the few weeks preceding the thermometric observations, the strength of the patient had diminished extremely. Happily, his power of taking food remained, and under a plentiful diet, and the exhibition of bark and ammonia, the temperature diminished to some extent, and the general strength improved in a very satisfactory manner, whilst the size of the spleen remained unaltered.

It is said that the early stages of this disease are unattended with any pyrexia; but Niemeyer speaks of feverishness as sometimes occurring at an early stage of the splenic enlargement; and he says that in the later stages of leukæmia the fever, which was at first temporary, usually becomes permanent; and that Uhle, who carefully measured the temperature in one case, found a constant increase of one to one degree and a half during the latter weeks of life.

The general health of the case above noted has greatly improved for the time, but he still suffers from evening feverishness for several hours, to about 100° Fahr.

ON THE RADICAL CURE OF HYDROCELE BY THE SETON.

By HENRY SMITH, F.R.C.S.,
Assistant-Surgeon to King's College Hospital.

Those who favour me with the perusal of these few observations will, I doubt not, feel inclined to accuse me of retrograding just one hundred years, more especially those who are familiar with the writings of Percival Pott; for they will know that, in the year 1771, that illustrious Surgeon wrote a treatise on the "Method of Obtaining a Perfect or Radical Cure of the Hydrocele or Watery Rupture by means of a Seton." They will know, moreover, that, notwithstanding the advocacy of this plan of treatment by Pott and others, it had fallen into disuse and almost into oblivion, and has been succeeded by methods which are looked upon as more simple and efficacious.

Taught, as I have been, to consider the radical cure of a hydrocele by the injection of iodine as the best that could possibly be adopted, I had been content with this plan of treatment, in which I had never met with a single failure, until, about eighteen months ago, it occurred to me that a modification of the plan recommended by Pott might be employed with especial advantage in those instances of hydrocele which occur in the out-patient department of an Hospital, for the disease might be cured without subjecting the patient to confinement in the Hospital, and indeed without removing him from his ordinary occupation. Since this period, I have adopted this treatment in every instance which has presented itself, and when a radical cure has been desired; and, although I have not notes of the cases, I doubt not that, in round numbers, I must have treated at least thirty cases by the seton, and with excellent results. Only in two instances has it been necessary to admit the patient into the Hospital after the introduction of the seton; in the one case violent inflammation suddenly came on without adequate reason; whilst in the other a similar state of things resulted from the patient walking all the way from the Hospital to Whitechapel immediately after the introduction of the thread—of course, this occurred without my sanction. In only one instance have I been obliged to repeat the operation in consequence of insufficient amount of inflammation. In the greater number of cases there has been but slight constitutional disturbance; in some of the cases, however, it has been considerable, but I may state here that some of these patients have been men much advanced in life, and subjected to depressing and unhealthy influences.

Pott's operation consisted, as is well known, in the introduction of a seton, "consisting of ten or twelve strings of candle-wick cotton;" the fluid in the vaginal sac having been previously drawn off by a trocar and canula. He put his patient to bed, and bled and purged him, and adopted other measures during the time the necessary processes for the cure were going on. Excellent as this plan was, there is no doubt that it was unnecessarily severe; and the method I adopt is simply to puncture the tumour with a common suture needle, armed with a single thread, and having brought the thread out at a distance of one or two inches from the point of entrance, it is disengaged from the needle, and the two ends are lightly tied together. I do not tap the hydrocele first, as Pott recommended, for if a pretty good-sized needle be used the fluid readily drains away. The patient may, and generally does, go to his ordinary occupation, and at his visit in forty-eight hours I generally find the part considerably swollen; but if that be not the case, inflammatory action may be excited by moving the threads, and desiring the patient to do so from time to time. In some cases the thread may be taken out in four or five days; in the majority of instances a week or ten days should elapse before it be removed. As I stated before, in only one instance has there been sufficient want of inflammatory action to bring about a cure, and here a second introduction of the seton succeeded.

I have already stated that I adopt this modified form of seton for the radical cure of hydrocele mainly because the patient is not compelled to withdraw from his ordinary occupation. I do not mean to assert that he should undertake any very laborious work during the first few days, when the inflammatory action is generally most severe, and I would not sanction a man taking a walk of several miles after the thread has been introduced. A certain amount of caution must be exercised, and the treatment must be watched every two days, so that if too much action is being produced by the seton, the thread may be at once removed.

It is right for me to state here that Sir William Fergusson describes, at page 667 of his new edition of Practical Surgery, a method very similar to that I adopt, and says he has found it answer very well, although I doubt not, from his subsequent remarks, and from what I have witnessed of his practice, he gives the preference to the treatment by the injection of iodine. The seton, however, for the reasons I mention, is particularly adapted for cases occurring in the out-patient departments of our Hospitals.

Wimpole-street.

NOTES FROM THE WAR.

By A. TREHERN NORTON, F.R.C.S.,
Assistant-Surgeon, St. Mary's Hospital.

(*Concluded from page* 500.)

Wounds of the Head and Neck.

Flesh wounds of the scalp, exposing the bones without injuring them, were numerous, and these were soon drafted off. In three cases in Briey a narrow strip of the bone was scooped away by a bullet so as to expose the membranes of the brain without comminuting the bone around. In several the skull was fractured and comminuted, and in some of these I removed portions of the bone, but in no case was it necessary to use the trephine.

Case 1.—Struck by a bullet on the right parietal bone. A piece of bone about three-quarters of an inch long was scooped away. The soft tissues were cut, but not removed. The brain could be seen pulsating on pressing open the wound. Pus used to collect within the skull, and, after cleansing the wound, about two teaspoonfuls of matter could be obtained by causing the patient to bend down the head. The dura mater was not ruptured, but was separated for a distance from the skull, so that the pus collected between the dura mater and the bone. The wound and cavity were injected with carbolic acid lotion by means of a syringe. He was allowed to walk about in the garden, and was not confined to the house.

Case 2 received a sabre cut across the sagittal suture, extending chiefly upon the right parietal bone; also a second cut on the left arm. The dura mater was exposed. This was followed by a considerable amount of fever and of pain in the head. He now remained in a semi-conscious state; he never moved the left arm or either of the legs, but frequently brushed away the flies with the right hand. If spoken to he would not reply, but if told to chase away the flies he would do so with the right hand. At this time leeches were applied to the right temple, and a dose of calomel was given internally. The left cornea now became semi-opaque, and the corneal zone of vessels were enlarged. An abscess formed on the outer side of the left elbow-joint, but it was not connected with the joint. A bedsore formed over nearly the whole of the right scapula. The patient was laid on a water-bed, which was sent out by the Society for Aid to the Sick and Wounded, and the pressure also was removed from the shoulder by means of an air-cushion. The abscess in the neighbourhood of the elbow-joint was opened, and warm fomentations applied. The corneitis was treated with a solution of atropine, and laudanum; quinine, and iron pills were given internally. From this time the patient slowly improved; he became more conscious, would make replies to short questions, and his appetite improved. A

piece of bone was removed from the skull, and the wound commenced to granulate. He was in this condition at the time I left him.

Injury to Jaw—Secondary Hæmorrhage—Ligature of the External Carotid.

In this case the ball entered the mouth and passed through the lower jaw at the junction of the ramus with the body. It then took a subcutaneous course (in the same straight line), and made its exit at the back of the neck. There was necessarily a fall of the body of the jaw on the left side, which was separated from the ramus, but it was readily supported by a pad attached over the head. The aperture of entrance of the bullet into the jaw could be felt behind the wisdom tooth, about large enough to admit the end of the finger. On the evening on which this case came under my care, I found him bleeding freely from the mouth, a small stream of arterial blood. I was not aware of the character of the injury. The whole mouth had been already plugged with charpie dipped in permuriate of iron by the French Surgeon of the village, but the bleeding still continued. The wound in the neck gave me the direction the bullet had taken, and in this direction I pressed with my finger firmly on the plugs. The hæmorrhage ceased, but it was necessary to continue the pressure for a considerable time. The following day the plugs were removed, and I then ascertained the precise condition of the structures, and found that the inferior dental artery had been severed.

A second attack of the hæmorrhage was stopped by pressing a pledget of lint dipped into styptic colloid into the aperture of entrance of the bullet. No bleeding of consequence took place from the aperture of exit. By keeping the jaw perfectly quiet, no bleeding took place for eight days. On this occasion I was absent from home. The hæmorrhage was found to be uncontrollable, and, as the patient was blanched and delirious, it was found necessary to tie the carotid. The external carotid was tied; not a bad symptom followed the ligature; no further hæmorrhage occurred from the inferior dental artery, and the case progressed favourably.

Gunshot Wounds of the Thoracic Cavity.

Wounds of the lung and of the pleura were not uncommon. I have an idea that the successful cases of wounds of the lung during this war will be in future described as large. I cannot say that I have seen more than a very few, in which I had no doubt of the lung itself having been injured, even making progress. Many were pointed out to me. In one instance, I saw a man who was shot through the chest on August 18. The French Surgeon in charge explained that the bullet had pierced the lung, and that the patient was making an excellent recovery. I saw the man thirteen days after the injury. He was then walking about; complained of no cough, and stated that he had not at any time expectorated blood. I remarked that I thought the cure too rapid for the lung to have been injured, but the Surgeon was confident of the diagnosis from symptoms which had existed. The patient casually remarked that he had the bullet in his possession, and that it had been cut from his back. I examined the bullet, and found it flattened on one side, where, in my opinion, it evidently had been turned by the rib.

In other cases of reported perforation of the lung, I found the apertures of entrance and exit of the ball situated on the same rib, and the rib unbroken; whereas, in cases of undoubted injury to the lung, I found the apertures situated frequently in relation to different ribs.

Cases of evident injury to the lung were numerous, and in these the wasted cheek and hectic flush, the small rapid pulse, the dyspnœa, and frequent cough, together with the signs of solidification of the lung and of pleuritis, showed too plainly what would be the most probable result.

I met with many interesting cases in which it appeared that the pleural cavity had been opened without perforation of the lung, and in these the prominent sign was that, after any collection of pus had been pressed from the sinus, and the wound cleansed, the patient could eject by coughing a still more considerable quantity of pus. On applying the stethoscope to the chest, a rough, to-and-fro friction sound was heard, as in the third stage of pleuritis.

A patient in Briey had received a bullet in the sixth costal cartilage on August 16. The bullet had lodged, and had been withdrawn. There was a free discharge of pus from the wound, of a greenish hue. No sinus existed, for the wound entered directly into the chest. On coughing, an increased quantity of pus, together with some small bubbles of air, escaped from the wound. I advised that the nurse should be careful in changing the poultices in this case, and that no change of position should be allowed when the poultice was off. Whilst visiting the other patients, one afternoon, I was called to see this man, who was supposed to be dying. I found him in a profuse perspiration, with extreme dyspnœa, and with the face and surface livid. There was a decrease of vesicular murmur, and a decrease of the pre-existing to-and-fro friction sound. It appeared evident that in some movement, whilst the poultice was being removed, a quantity of air had entered the cavity of the pleura, and produced a partial collapse of the lung. Whilst I was remaining by his side, small quantities of air continuously escaped through the wound, and after some time he recovered.

Injury to the Abdominal Cavity.

A Prussian captain was shot in the abdomen, on August 16. The ball had passed through the left side of the abdomen, making its exit in the left lumbar region. Fæcal matter passed through the posterior orifice. Gentle pressure on the abdomen produced no particular pain, but there was a moderate amount of distension from flatus. The pulse was rapid and weak throughout. On the twenty-second day after the injury air escaped into the cellular tissue, and emphysema became general over the abdomen, chest, and lower extremities. He died on the twenty-fifth day. There was an objection to a post-mortem, but the ball probably pushed the small intestine away before it and perforated the descending colon, out of which the fæcal matter escaped and made its way through the posterior opening. Fæcal matter could not have escaped into the cavity of the peritoneum, as there was no symptom of such having taken place.

Injuries to Joints.

Resections of the knee-joint were generally fatal, but very few recovering. Resections of the elbow were more numerous, and far more satisfactory. The portions of bone removed by the Prussian Surgeons were often of very great size, but it will require many months before the result of such cases can be fully known. The two following cases are examples of good recoveries without operation:—

Case 1.—Ankle-joint. The bullet struck the tibia about four inches above the ankle-joint, producing a comminuted fracture of that bone; it then passed through the astragalus, and out below and behind the external malleolus; the fibula was not broken. The man refused to have amputation performed, and the limb was therefore arranged in a splint, which we made from sheet tin, and which was accurately adapted to the form of the leg. A piece of impermeable tissue was next placed so as to carry off the suppurative secretion and also the irrigating fluid. Loose and separated pieces of bone having been removed, irrigation with carbolic acid lotion was now performed completely through the wound twice or three times a day, according to the necessity. Granulations sprang up in the centre of the wound, and after a time prevented the fluid from passing through. The case did well from the commencement, and the limb was saved.

Case 2.—Wrist-joint. The bullet struck the metacarpal bone of the index finger, through which it passed into the wrist-joint. It was removed from the joint by the bullet forceps.

I removed portions of the metacarpal bone and of the carpal bones, and had the limb fixed on a splint, with impermeable tissue beneath for the purpose of irrigation. An abscess formed about three inches above the joint on the extensor surface of the arm. This was opened, and as matter was collecting in the joint, I made a counter opening on the inner side of the wrist-joint. The disinfecting fluid was now poured in till it escaped through both the counter opening and through the abscess. The man never kept his bed, but was allowed to walk about outside the house. Suppuration soon ceased, and the case was doing well when he left my care.

6, Wimpole-street.

Lead Poisoning.—Professor Church, of the Royal Agricultural College at Cirencester, points to a danger resulting from the use of gazogenes for preparing aërated waters. He says:—"I have examined a large number of different waters—English and foreign, old and new—and I find one defect universal. The upper part of the long glass tube (through which the aërated liquor is forced from the lower vessel) is fitted into a tube of pewter. The aërated water standing in this dissolves some of its lead; and the first wineglassful of water drawn each time that the apparatus has been left to itself, turns brown when tested with hydro-sulphuric acid. Why should not the new tin-lined lead tubes be used for the metal fitting in which the little spring-piston of these machines works?"—*Food Journal.*

CASE OF FRONTAL SUPPURATION.

ABSCESS IN ANTERIOR LOBE OF CORRESPONDING HEMISPHERE OF THE BRAIN—PERFORATION OF THE FRONTAL BONE BY A SMALL ORIFICE—SMALL CAVITIES IN THE LUNG.

By JAMES RUSSELL, M.D.,
Physician to the Birmingham General Hospital.

In a disease which exhibits so much variety in its symptoms as cerebral abscess, each case is worth recording, even if it does not present any very remarkable symptoms. My present case is conformed to what is probably the most characteristic type of symptoms of abscess of the brain. When there is external suppuration, especially in the superficial parts of the head or face, and when headache and epileptic convulsions date from a period not distant from the suppuration, the diagnosis of intracranial abscess is not difficult. There are also other conditions under which an opinion may be formed with much probability. In the acute non-encysted abscess tolerably clear indications of mischief within the cranium are often afforded, and the diagnosis may acquire precision by the concurrence of suppuration within the cranial cavities or elsewhere, such suppuration pointing to the probability of extension inwards by direct continuity, or through the medium of the vessels; but, even in this class of cerebral abscesses, instances such as those recorded by Dr. J. W. Ogle (Nos. 88, 89, 91, vol. lxx., *Medico-Chirurgical Review*) warn us not to anticipate any necessary relation between the amount of mischief and the definiteness of the symptoms. On the other hand, in the "cold" abscess, which becomes firmly encysted, the symptoms are varied and obscure; are sometimes entirely absent until secondary changes take place around the abscess; and the obscurity may be further deepened by the want of opportunity of associating the disease with any primary cause, such as injury or external suppuration.

The main reason of the diversity of character in the developments of cerebral abscess appears to consist in the circumstance that the abscess chiefly affects the white substance of the brain; for not only is there abundant proof that a considerable extent of white substance may be damaged, without distinct evidence of such damage being afforded in the functions of the organ (and no disease places this fact in a stronger light than the one under consideration), but, what is still more to the present purpose, the effects of lesion of the white matter are indirect; hence very many of the symptoms of cerebral abscess indicate instability, rather than destruction of tissue. Such being the case, the effect which the abscess produces, excluding, of course, the operation of secondary changes in its immediate neighbourhood, will depend upon the direction taken by the reflex action, and very much, also, upon the degree of sensibility possessed by the cerebral tissue—a varying function in different cases. In this particular condition lies the difference between the symptoms of the acute and the chronic abscess; and to the same condition may probably be referred many differences presented by the symptoms of the chronic form. Indeed, cerebral abscess, next to intracranial tumour, seems to afford the best illustrations of indirect action in disease of the brain.

With respect to my present case, the small perforation, only two lines in diameter, through the frontal bone, corresponding so closely to the seat of the abscess in the brain, is the most interesting feature. The bone being healthy quite up to the edge of the opening, negatives the idea that disease of the bone occasioned at once the outside suppuration and the perforation. It might be suggested that the cerebral abscess was produced at an earlier period than the present illness—having been derived from the cavities in the apex of the lung—and, by making its way outwards through the frontal bone, had constituted the origin of the frontal suppuration; but such a supposition is negatived by the rapid and complete healing of the external abscess, by the commencing closure of the aperture in the bone by granulation, but most especially by the perfectly healthy state of the dura mater, notwithstanding the minute orifice in that membrane, which was probably artificial, and the want of adhesion between the surface of the brain over the abscess and that membrane.

The frontal aperture rather seems to indicate the line of purulent infection by which the external abscess produced the internal suppuration, through the medium of one or more vessels, a process of softening having been set up around the diseased vessels, ceasing as soon as destruction of bony tissue and perforation were accomplished. In Dr. Gull's third case (Guy's *Reports*, 1857), the vein of the aquæductus vestibuli was found inflamed. I need not add that the observations quoted by Dr. Gull prove that sufficient time had been afforded for the production of a cyst around the abscess.

G. C., aged 26. No history of syphilis could be obtained; there was no cicatrix on the penis. After having fallen off in health for a fortnight, he was taken with rigors five weeks before his admission. Two days afterwards suppuration was discovered over the right side of the forehead; there was also fever, languor, very dilated pupils, and a tendency to excitement. On the next day but one he was found on the floor in a fit, with bilateral convulsions; the fit recurred repeatedly during the remainder of the day. An incision was made in the abscess, and in two days the discharge from it entirely ceased. The patient came down stairs. The fits did not return, but from that time he suffered from constant severe pain seated around the occipital protuberance, and it was for this pain that he entered the Hospital. I did not see him alive, but I am informed that when admitted he presented no symptom to attract notice, beyond the pain already mentioned. On the following evening, however, he was found by Dr. Welch, the House-Physician, unconscious, lying on his face, groaning, and with slight spasmodic movement of both hands. His face was much congested, his pupils greatly contracted. The pain had become more severe shortly before. He partially recovered, but again relapsed, and died in an hour and a half from the period of the first attack.

Sectio Cadaveris.—The only indication of the external abscess in the forehead was the incision, which had not firmly cicatrised; the soft parts were quite healthy. Corresponding to the incision was a perforation of the frontal bone, two lines in diameter, filled by soft granulations. The surface of the bone, inside and outside, and the diploe were perfectly healthy quite up to the edge of the opening, nor was there any stain of pus. The dura mater adhered rather firmly to the frontal bone, but there was no adhesion between that membrane and the surface of the brain. Whilst separating the dura mater from the skull, pus issued freely from between it and the bone; but no pus issued through the frontal bone. This was found to be occasioned by the emptying of the cerebral abscess, during the process of removal, through a minute orifice in the dura mater (capable of admitting a probe), possessing sharp, clean edges, without stain of pus, which corresponded to a somewhat larger though equally sharp and clean opening in the anterior wall of the abscess. In all other respects, the dura mater and its sinuses, the inner surface of the frontal bone, and the surface of the brain were perfectly healthy, and free from stain of pus. The convolutions of the brain were flattened. The abscess, the size of the largest walnut, lay in the anterior lobe of the right hemisphere of the brain, so close to the surface that its anterior wall was no thicker than paper. It was lined by a thin cyst; its contained pus was quite inodorous. The surrounding brain substance was soft, and presented by the microscope numerous compound corpuscles. The remaining portion of the brain and all the vessels were quite healthy.

I did not witness the remainder of the examination, but I am informed that there were some small tubercular cavities in the apices of both lungs, lined with a membrane, and containing pus.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

The following cases we observed in Dr. Ogle's practice:—

Case of Paraplegia (? of Syphilitic Origin). Whilst in Hospital the patient was attacked by typhoid fever; large sloughs on the back formed quickly, accelerated, no doubt, by the dribbling of urine, owing to paralysis of the sphincter of the bladder, in addition to the difficulty of changing the posture by reason of the paraplegia. The temperature during the attack of fever was found to be notably lower in the lower part of the body than in the axilla, being on several occasions 102·5° in the axilla and 101·5° in the ham, and on one occasion 105·6° in the axilla and 102·4° in the ham. After death, slight softening of the upper part of the dorsal region of spinal cord was found.

Case of Chronic Bright's Disease, in which solidification of the upper part of the lung formed, and abscess of the same part, no tubercle being found.

Case of a man who had Tracheotomy performed six years previously for what was most likely syphilitic affection of the larynx. He had worn the tracheotomy tube continuously for six years; but a few weeks ago the tube, which had become worn out, separated from the shield and dropped down into the trachea. The patient now has the sensation as if the tube were situated just above the sternum; but the stethoscope does not indicate its locality. Dr. Ogle is about to have the larynx examined with the laryngoscope.

Case of a young girl who gulped a Monthful of the Linimentum Opii of the Pharmacopœia, thinking it was port wine. But little, if any, was swallowed; but intense swelling and inflammation of the tongue followed, and two large sloughs, which are now cleaning well under the use of chlorate of potash gargle.

Case of a man who said he had got cold the day before admission, and that he had felt "so queer" on his legs that he could not go to work. This sensation had passed off, but left him with a "bad cold." The air-tubes, almost through the entire lungs, gave out dry musical sounds, and the voice was like that of one talking through the nose. Dr. Ogle found that there was complete vertical paralysis of the soft palate, and that no movement of palate or uvula could be produced by deep inspiration or tickling the fauces. Some hours after this the mouth became closed, and he was unable to open it, and the saliva trickled out of the left side of the mouth. Complete right hemiplegia and aphasia set in, but it was noticed that, though the mouth was firmly closed, it opened when he yawned. Dr. Ogle compared this with the involuntary drawing up of the paralysed arm often observed during the same acts, and when the patient is under any emotion. The patient is going on well, recovering the use of his leg and the power of opening his mouth. The mind has been free throughout. He is taking iodide of potassium in ten grain doses.

Case of a little girl with Acute Rheumatism. On the second day of admission there was a peculiar sharpness and click of the second sound at the base of the heart. On the following day there was a large effusion into the cavity of the pericardium, which, under treatment, has all but vanished. At no time was there any friction sound audible. Leeches were applied to the cardiac region, which afforded instant relief, and alkalies given. Since the effusion has been absorbed, a soft, rather loud systolic bruit has been developed, audible chiefly at the base. This is probably an anæmic murmur.

Case of extensive Cardiac Disease and Dropsy. Relief followed quickly upon abortion occurring.

Cases of Chorea in a girl who had been in Hospital with the same three or four times. Sulphate of zinc, and then the mist. ferri co., brought no amendment. She then had "sore throat," and threatenings of scarlet fever, when the tinct. ferri pereh. and hydrochloric acid and quinine were given with wine. Since then the choreae symptoms have very manifestly diminished. When shower-baths were used, she was very unmanageable during their use, and seemed to be worse under their influence.

Case of extensive Pneumonia of almost the whole of One Lung in a servant girl, who had been working up to the day before her admission. After a time the "redux crepitation" was manifest. Dr. Ogle suspects that the state of the lung may have been of rheumatic origin, as she has lately had a slight attack of rheumatic pain and swelling of the joints of the hands and arms.

MEDICAL COLLEGE HOSPITAL, CALCUTTA.

MALIGNANT TUMOUR OF UPPER ARM—AMPUTATION AT THE SHOULDER-JOINT—RECOVERY.

(Under the care of Professor PARTRIDGE,)

I. U., a Mahometan boy, aged 12, native of Jessore, admitted into the Medical College Hospital, Calcutta, on September 10, 1867, with a large tumour involving the upper two-thirds of the left upper arm. About fifteen months prior to his admission into Hospital, he fell from a mango tree, from a height of about 8 or 10 feet, and severely bruised the limb. About a fortnight after the accident, a hard, painful swelling appeared at the outer aspect of the arm near its upper part, and rapidly increased in size. Nearly a month after its appearance, and when it had attained the size of an orange, some escharotic was applied of it, which gave rise to extensive ulceration. The ulceration healed after an interval of two and a half months. The tumour continued rapidly to increase in size, and its growth was attended with severe pain in the arm, forearm, and hand. The boy's constitution soon began to suffer, and he became rapidly weak and emaciated. At the time of his admission into Hospital the tumour occupied fully the two upper thirds of the upper arm; it was hard, elastic, and nodulated, two prominences being especially well marked, one at the upper and outer part, and the other towards its internal aspect; the skin was tightly stretched over the growth, though not adherent, and, as far as could be ascertained by careful manipulation, the tumour appeared, though somewhat movable, to be firmly connected with the bone. It did not involve, and except by its position and bulk, did not interfere with the movement of the shoulder-joint, and there did not appear to be any enlarged glands in the axilla. The circumference of the tumour in its widest part was 22 inches, its mean circumference about 18 inches. The boy at the time of his admission was in such an extreme state of debility and prostration, that I did not consider it justifiable to resort to any immediate operative measures for his relief. Finding, however, after an interval of nearly a fortnight, that the growth was rapidly increasing, and that his constitutional symptoms were becoming seriously aggravated, I determined, in consultation with my colleague Dr. Fayrer, to give him the chance of recovery afforded by an amputation at the shoulder-joint. The operation was performed under chloroform, on September 23. He bore the shock well, and the loss of blood was trifling. On examination of the limb after removal, the tumour was found to be connected with the periosteum by a comparatively limited neck, near the insertion of the deltoid; it did not involve the bony structure, but it stripped up the surrounding muscles and enveloped the bone, nearly to the level of the shoulder-joint, throughout fully two-thirds of its circumference. It consisted of an abundant matrix of fibrous tissue, enclosing cancer cells. For the first few days after the operation there was some febrile excitement, the pulse rising to 148, and the temperature, as shown by a thermometer in the axilla, to 102°, but these unfavourable symptoms disappeared by the commencement of October, and from that time he steadily progressed towards convalescence, the only drawback being a slight slough of the external flap, where it consisted to a trifling extent of the cicatrix tissue of the old ulceration. He was discharged on December 2, 1867, much improved in general health. Throughout the treatment the wound was dressed with carbolic acid and oil in the proportions of 1 to 4.

CASE OF NEGLECTED ABSCESS OF THE THIGH, LEADING TO DISEASE OF THE FEMUR—AMPUTATION AT THE HIP-JOINT—RECOVERY.

L. D., a Hindoo boy, aged 10, admitted into the Medical College Hospital on September 24, 1868, with an enormous abscess in the left thigh. No satisfactory information could be obtained as to the previous history of the case; all that could be ascertained was that about three weeks prior to his admission, a painful swelling made its appearance at the inner side of the right knee, that this swelling had since rapidly extended upwards, and that its formation had been accompanied with great general disturbance, evidenced by pain, fever, loss of appetite, and general prostration. There was no evidence of any local injury, and the patient's health previously had been excellent. At the time of his admission the swelling involved the knee joint, and extended upwards above the middle of the thigh; it was tense and fluctuating, excessively tender to the touch, and all movements of the knee-joint were attended with excruciating pain. The poor little fellow was in an extreme state of prostration; his pulse weak, rapid, indeed hardly perceptible, the skin dry and hot, and the body extraordinarily emaciated. The pulse in the afternoon of the day of his admission was 120, and the temperature in the axilla 102°; his tongue was clean and moist; his bowels in good order; and there was some appetite. Believing that I should find the knee-joint so seriously involved as to necessitate amputation, I determined to delay opening the abscess until I had attempted, at least, to relieve the extreme state of depression present at the time of his admission. I therefore ordered perfect rest, constant fomentations, good nourishing food at short intervals, and small doses of citrate of iron and quinine. On the 27th, finding the swelling decidedly increasing, and the pain and tenderness becoming augmented, I made a free incision, and let out a pint and a half of tolerably healthy pus; introducing my finger into the wound I found that the abscess involved the knee-joint, and that the shaft of the femur was stripped of its periosteum nearly throughout its circumference, and up to the middle of the thigh. I ordered the cavity to be washed out twice daily with a watery solution of carbolic acid (℥ij. to ℥j.), and determined to persevere for a few days longer in the

tonic and renovating treatment previously adopted. For a time his general health decidedly improved; he took his food well, and the pulse became fuller and steadier, though not less frequent. Finding, however, on October 3, that all change for the better appeared to have ceased, I determined to operate without further delay. Chloroform was administered, and I amputated the limb by an anterior and posterior flap, dividing the bone immediately below the trochanters. On examining the cut surface of the femur, I found the medullary membrane and the medulla in an unhealthy state, whilst the periosteum covering the bone separated from it at a touch, like the finger of a glove. I therefore at once extended the incisions, disarticulated the head of the bone, and converted the operation into a hip-joint amputation. Very little blood was lost during the operation, and the patient bore the shock well. Twelve ligatures were applied, the flaps brought together with iron wire sutures, and the stump dressed with carbolic acid oil. For three days after the operation there was considerable febrile excitement; the pulse rose to 140, and the temperature to 103°; the skin was dry and hot, with occasional profuse perspirations; there was hurried breathing, with a somewhat troublesome cough, but no dulness on percussion, and no auscultatory evidence of the presence of pneumonia. On October 6, the skin became cool and moist, the cough diminished considerably, and in every respect the patient showed symptoms of improvement; on this day eight ligatures came away, and the remainder were removed on the day following. On October 10, the iron wire sutures were removed; the flaps were found to be in satisfactory opposition, and to a great extent united; the discharge was healthy, and the granulating surfaces of the wound in fair condition, though somewhat flabby. On October 14, he complained of pain in the left leg, and on examination the femoral vein was found to be hard, cord-like and tender on pressure, and there was considerable swelling of the leg. Hot fomentations were ordered every six hours; the track of the vessels was painted with a strong solution of nitrate of silver (grs. lx. to ℥j.), and the limb was ordered to be kept moist with a strong sulphate of iron lotion. Under this treatment the swelling and tenderness soon began to subside, and by the beginning of November had disappeared altogether. By this time, also, the stump had nearly healed, and there was only a small sinus left in the track of the main ligature; his general health had also greatly improved, and he was rapidly gaining flesh and strength. During November he was threatened with an attack of dysentery, but the symptoms rapidly yielded to appropriate treatment, and he was ultimately discharged cured on January 10, 1869.

CASE OF TUMOUR OF THE LEFT UPPER JAW—OPERATION—RECOVERY.

T. R., a Hindoo broker, aged 48, native of Bikaneer, admitted into the Medical College Hospital on December 27, 1868, with a prominent tumour of the left upper jaw. He first noticed the growth about two years prior to his admission, since which time it had been steadily increasing in size; it did not cause much pain. His general health had been uniformly good, and he had never suffered from fever or bowel complaint. The tumour seems to have originated in the left antrum, and to have extended mainly in the upward and forward directions. It was found to be nodulated, hard, and elastic to the touch. The integument covering it, though stretched and attenuated, was not adherent to its surface. It had produced complete absorption of almost the whole of the facial surface of the superior maxillary bone, and by its encroachment upwards on the cavity of the orbit, it had displaced the left eye, forcing the globe laterally beyond the circumference of the orbital cavity. There was opacity of the lens, which, according to the patient's belief, had advanced *pari passu* with the growth of the tumour; the patient could not, at the time of his admission, distinguish light from darkness, the optic nerve being apparently paralysed by the tension and pressure. There was no bulging of either the hard or soft palate, and the bony structures of the region were apparently in a perfectly normal condition. On December 29 the patient was placed under the influence of chloroform, and the tumour removed through a semi-lunar incision, commencing at the root of the nose, curving outwards above the left nostril, and ending near the prominence of the cheek. The growth was well-defined, and limited by a weak fibrous capsule; it had produced absorption not only of the facial surface of the superior maxillary bone, but also of the whole of its orbital plate, and, consequently, its removal exposed the under surface of the orbital fat, with the globe and its surrounding fibrous and muscular investments. On the inner side of the orbit the lateral mass of the ethmoid had undergone considerable displacement and absorption, but there was no extension of the growth upwards to the cavity of the cranium. Four ligatures were applied; the cavity was carefully filled with strips of lint soaked in carbolic oil, and the edges of the incision then carefully brought into opposition with the aid of horse-hair sutures. A microscopic examination showed that the tumour consisted of an abundant fibrous matrix, containing within its meshes a considerable proportion of nucleated cellular material. For the first few days the patient was slightly feverish, and there was considerable swelling in the neighbourhood of the incision; but the appetite remained unimpaired, and he slept well. The ligatures came away on January 1. On the evening of January 3 he passed several dysenteric stools, and purging continued slightly for a period of five days. On January 4 the horse-hair sutures were removed, and by that date the whole length of the incision, with the exception of one or two small points, had firmly united, leaving a scarcely perceptible scar. The cavity left by the removal of the tumour was daily syringed from the mouth with a watery solution of carbolic acid, and then lightly filled with lint soaked in carbolic oil. On January 13 the whole wound had completely healed, and he was discharged.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 5, 1870.

GASKOIN'S VILLALOBOS—INTRODUCTION OF SYPHILIS.

The introduction of syphilis into Europe is still a battle-field with authors. As for its *origin*, that is as obscure as the origin of any other form of life, natural or morbid. But as to the time when a new disease appeared in a civilised community, that ought to be as capable of being fixed, by adequate evidence, as the date of the acclimatisation of a new plant or animal. The evidence, unhappily, as to the introduction of syphilis from America has not proved sufficient to convince many critics, but these must now weigh and confute the fresh arguments which have been brought forward by Mr. Gaskoin, whose deserved reputation as a syphilographer is enhanced by his researches into documents which would be sealed save to one well versed in the languages of the Iberian peninsula. Mr. Gaskoin has now put into our hands a translation, with an ample commentary, of a part of a Medical poem of Francisco Lopez de Villalobos, an eminent Spanish Physician, who flourished between 1474 and 1560, and who wrote in verse a "Summary of Medicine, with a Treatise on the Pestiferous Bubas."

The father and grandfather of Francisco Lopez de Villalobos were Physicians to the noble house of Astorga. Our author may be, therefore, conceived to have lived in a Medical atmosphere during his earliest years. He was educated at the University of Salamanca, and whilst still a student there, and

in his 24th year, A.D. 1498, he wrote and published, at the desire of his patron, as a popular Medical book, a summary of the Principles and Practice of Physic as then understood, in a series of ten-lined Spenserian stanzas, and in a metre like that of the song—

"Run, neighbours, run! all London is quadrilling it,"

which was so popular fifty years ago. Mr. Gaskoin, as a translator, has evidently aimed at correctness rather than elegance; his diction is always quaint, not to say grotesque, but it is not less like the original for all that.

It is as an appendix to the "Sumario" that the author gives his account of the "contagious and accursed bubas," the malady which we now call syphilis. He begins by asserting that in the very time of those "princes wise and glorious," the "kings, Don Fernando and Donna Isabel," there came a new plague; a pestilence ne'er to be found at all in verse or in prose, in science or in story; uncontrollable, contagious, racking and crippling the bones. Having given the opinions of astrologers, theologians, and Physicians, as to the cause of the disease, he is at great pains to refute the opinion that it is an old disease already described by Physicians, and dwells largely on the combination of "buba or small sore" on the genitals, eruption on the skin, and pain in the bones, as marking off this disease from any already known. He then enumerates several varieties, and goes on to treat of the cure, in which he describes a system of treatment which many have supposed to be of quite modern origin. It is a system of "support" and "alcoholic stimulation" in vogue at the end of the fifteenth century!—

"And some took the notion that to cram and to swell
The stomach and the guts with all that came to table
Was the very quickest way to make the patient well.
* * * * *
They said evacuation and phlebotomia
Should be done upon the wine-jug, and upon the person not."

Our author rejects this, as he does the opposite course of bleeding, violent purging, and starvation. He treats the inunction of mercury with contempt—a thing fit to be done by saddlers; and declares that, although it mitigates the pain, yet that the relief is but temporary. He then describes his own treatment, which seems to consist in gentle purgatives, vegetable sudorifies and diet drinks, and light diet, with something like our calamine ointment and mercurial ointment as applications to ulcers and nodes.

We must commend the student to Mr. Gaskoin's translation, and his notes brimful of erudition, for a fuller account of this literary curiosity and specimen of the practice of our forefathers. We only wish now to call attention to two or three points which show that syphilis was a new disease at the end of the fifteenth century.

One point, which is noticed by many authors, is the want of a name—for the term syphilis, invented by Fracastorius, did not come into general use till long afterwards. The thing was new, so it everywhere received the name that seemed handiest and most emphatic. Mr. Gaskoin well observes upon the evidences of word-coining, shown by the words in common use by the vulgar all over the world for skin eruptions. Nearly all of them begin with b or p, as *bub*, *bleb*, *blain*, *blatter*, *bulle*, *boil*, *blister*, *pock*, and *push*, with many others. Now, when syphilis appeared, the vulgar gave it a common name, intensified by the demonstrative article, *the pockes*, *las buuas* or *bubas*, *la grande verole*, *la grande gorre* (*i.e.*, sow, filthy puddle, etc.) Let it be observed that bubas has no connection with the Greek or Latin *bubo*. The polite called it by the name of the neighbouring nation from whom they received it; thus, the English called it morbus Gallicus, and the like. Now, it is a fair argument that syphilis was a new disease, in that if it were an old disease it would have had an old name.

In the next place, Lopez de Villalobos, and other Physicians, knew and described the old ulcers and imposthumes of the genitals as Celsus did, and described *las bubas* as something more.

In the next place, the sly fun got out of syphilis, and the mock respect with which it was treated, shows that it was a disease affecting those given to gallantry, and a new disease too; nobody thought of making fun of the leprosy or the itch, or treating it with a mock respect. There is a wonderful passage quoted by Mr. Gaskoin from a work by Gaspar Lucas Hidalgo, a contemporary of Lopez de Villalobos, which reminds us of the best bits of Cervantes, Dean Swift, or Fielding. He describes not merely the respect, but the worship and adoration paid to *las bubas*. The bubous persons, he says, exercise a seigniory over all their circle; "they go on gaining in respect and service, till at last it is nothing short of adoration, for not only is there a worship for their persons, but even for all utensils devoted to their service there is a peculiar *cultus* and awe engendered. No one ventures to sleep in their bed, or to put on any of their clothes, to eat off their plate, or to sip of their cup, or even to sit down upon their chair; for all these things are as sacred vessels, reserved and consecrated to the noble patient." The bubas are the source, says our author, of the saintly and noble dispositions: "Where are there any such frank, open-handed, munificent gentlemen as the bubous are proved to be? They pay, as they do speak, through the nose; this, too, serves to prove them considerate. When anyone has lost by us do we not strive to do him a turn, and make it up to him in some sort of way? Now the nose suffers much from the bubas, and that is why the bubous gentleman doth give it the office of interpreter, and can throw his speech through that doorway."

We should be glad to extend our notice, but we must stop. The question of the origin of syphilis is one of the most interesting in the history of the human race; but, from the neglect of contemporary evidence, it has been miserably obscured, and we owe great thanks to any one who, like Mr. Gaskoin, has the knowledge and patience requisite for the research into that evidence, and the wit to see the importance of the quest.(a)

THE WAR.—DIFFICULTIES OF THE GENEVA CONVENTION—THE HOSPITAL AT VERSAILLES.

We had never been very sanguine as to the practical results of the efforts of philanthropic neutrality to mitigate the horrors of war. We had more than once, while noticing the various proposals of the Geneva Convention for the Relief of the Sick and Wounded, intimated our doubts as to their feasibility when tested by the searching influences of actual war. So long as human nature is human nature, until wars shall cease, it can never be expected with any reasonable degree of probability that a neutrality which recognises neither friend nor foe among the combatants—which claims for its agents in the relief of the wounded on both sides a complete independence of control by either—can ever be regarded otherwise than with suspicion by both. In fact, the more complete and disinterested may be the observance of the neutrality, the more distasteful does it naturally become, particularly to the winning side. A good illustration of the truth of our remarks has been recently afforded by the special correspondent of the *Times*, who recounts the sneering observations of a Prussian officer in reference to the sum subscribed by England for the aid of the sick and wounded—that it was a little percentage on the profit made by the sale of arms to enable the war to go on; that Miss Britannia is a very good lady—she pays her conscience-money very well. The tolerably plain hint given to Colonel Loyd-Lindsay by the Prussians that the £40,000 which he divided equally among the Prussian and French armies should have been given entirely to the former, is another indication that the stronger side views with but little favour the neutrality which does not worship success. The peremptory removal of the *infirmiers* from the Anglo-American Ambulance as prisoners

(a) Dr. Finchenstein's Translation of Villalabos (noticed in the *Medical Times and Gazette*, 1869, Vol. ii., p. 628) is noticed with very scant praise by Mr. Gaskoin.

of war, the overcrowding of that Hospital with Prussian wounded and sick, the enforced idleness in other instances of willing and able Medical volunteers, at many places where their services would have been most valuable, are all further proofs of the incompatibility of a strict rendering of the rules of the Geneva Convention with the absolute control asserted by the Prussian Medical men.

It is not our desire in these matters to impute any blame to the Prussian authorities, military or Medical. They have, doubtless, had difficulties of no ordinary nature to contend with, and should not be judged without the fullest consideration being given to the exigencies of the circumstances in which they have been placed. Their Hospital establishments have proved insufficient for the immense strain of work demanded of them; and it is stated by a very competent observer that they do not at all come up to our ideas. The Bavarians, especially, are short of many necessaries. Notwithstanding the apparent establishment of German unity, there are still a variety of interests to be looked after in matters Medical among the vast army assembled round Paris. The head of each branch of the National Associations is represented as doing the best he can for his own compatriots—the Prussian for the Prussians, the Bavarian for the Bavarians, and so on. How can it, then, be wondered at that the appearance of foreign neutral aid societies should merely add fresh elements of jealousy, and that it should be pretty clearly hinted, in terms more frank than grateful or polite, that if the foreigners would hand over their horses, stores, and *matériel* to the Prussians, and then go away wherever they liked, their room would be more welcome than their company.

It may seem a hard thing to say anything in detraction of well-meant, though ill-applied, efforts for the relief of human suffering; but we confess that the opinion has been gaining on us that the vast sum collected by the English National Society for the Aid of the Sick and Wounded in the present war, has resulted from the spontaneous and unreflecting charitable sympathies of this country. The details furnished by the correspondents of the daily papers, and by our own, have confirmed this opinion. Money and stores supplied to either belligerent, ostensibly for the relief of the sick and wounded soldiers, actually put equivalent means at the disposal of the authorities for the munitions of war, thereby relieving the exchequer and the government of so much of the demands, anxiety, and responsibility which belong, by right, to a state of war.

If States, in reckoning the cost before going to war, can assume as one of the factors of the calculation, the external aid likely to be afforded by the charity of other countries in the care of their sick and wounded soldiers, one of the most powerful inducements to refrain from war is removed. The supreme effort made by the Sanitary Commission of the United States during the late American war cannot be quoted as a case in point. The circumstances of civil war are peculiar, and present no analogy on the strength of which a country at peace with each of two belligerents should feel called upon to relieve both of a certain amount of the expenses which each ought to sustain for itself. Such extraneous aid actually tends to prolong the struggle and the miseries attendant on it.

The occupation of the Palace of Versailles, dedicated *à toutes les gloires de la France*, by the head-quarters of the Prussian army of investment of Paris has brought into existence the most remarkable military Hospital on record. The magnificent galleries of the Palace, whose walls are crowded with pictures of the heroes of France, are now filled with sick and wounded Prussians. The theatrical attitudes, brilliant costumes, and glaring eyes of the subjects of the various paintings are said to have struck the Crown Prince as such painfully obtrusive objects of vision to the sufferers, that he suggested the changing of patients able to be moved from one room to another, so as relieve them from the injuriously monotonous and nerve-irritating influences of constantly staring at the same pictures. This was certainly a capital idea, which we should have thought more likely to have originated with some of the Medical attendants. The Crown Prince, however, having got the credit of it, we must be content with the hope that the patients are having the benefit. The galleries have the further disadvantage of being draughty and cold, so that, as the winter advances, there will be great difficulty in warming and ventilating them.

It is with considerable surprise that we see it stated by the special correspondent of the *Times* that chloroform is not in favour with either the Prussian or French Surgeons. Surely this can only be from deficiency in stock. He has seen in the Paris papers specific directions for the treatment of wounds, in which chloroform is objected to, as well as the use of perchloride of iron. He describes a scene in the *Salles des Maréchaux* ward, where a Surgeon was probing a gunshot wound in the thigh of a man, who uttered such harrowing yells, that the sister of charity who was in attendance turned and fled, a wounded man near burst into tears, and all in the ward were agitated except the Surgeon and his assistants, one of whom tried to stop the outcry by pressing the patient's mouth and chin, till at last the doctor lost patience and roared at the wretched sufferer to be quiet, applying a strong term at the same time. The yell died into a whimpering moan still more dreadful. It is but poor satisfaction to be drily informed after this that the doctor is a very clever man, and has his Hospital in capital order. *Apropos* of him, it is noticed as an instance of illiberality as well as folly on the part of the Prussians, that Jews may become regimental and staff Surgeons, but the post of Oberstabsarzt, equivalent to our Deputy Inspector-General of Hospitals, is closed against them; so that if they are fit for it, the State is deprived of the services of able men in places where they are most needed.

This piece of illiberality must appear the more striking as Jews are so much more numerous among the Prussians than with us.

GERMS.

One is getting tired of the endless discussions to which *germs* have given rise; yet the paper by Dr. Richardson, an account of which was partly given in our columns last week, and continued to-day, may very conveniently be taken as a standpoint whence we may view the two theories of diseases, the chemical or physical and the vital.

On the one side we have the doctrine that disease originates from germs, the type of which we may take to be the sporules of fungi, such as are described by Pasteur in his researches on the Pebrine disease of silkworms; that those bodies, introduced by some means or other into the system, begin to grow, their growth and multiplication— at the expense, say, of the blood—implying, of course, certain changes in that tissue, producing as their indications the symptoms of the disease. On this theory, it is plain that it is the vitality of the germs merely—their powers of growth and reproduction only—which are at the root of the mischief. Did they not grow, the blood and tissue changes would not be effected. On the other hand, we have the doctrine that altered secretions have the power of giving rise to diseases—say the altered secretion of skin the power of producing scarlatina, or that of the alimentary canal giving rise to cholera. Here there is nothing foreign introduced into the body, certainly nothing owing its influence to vitality merely.

The upholders of the germ theory claim for these germs extraordinary powers of resisting destruction by cold or by heat; but that the presence of certain substances, notably phenic acid, is fatal to their existence. Furthermore, they are driven to the phenomena of fermentation and putrefaction for illustrations of this theory of disease, some of them not scrupling to call ordinary suppuration the putrefaction of a wound. Now, it may be well to inquire how far we can go in actual knowledge, without the aid of speculation, as to the fashion in which cer-

tain diseases originate. It is perhaps best to take vaccinia, that subject having been best worked out. From the researches of Chauveau, confirmed by those of Dr. Burdon Sanderson, we know that the venom, so to speak, is not fluid, but solid; not dissolved in the fluid, but suspended in it. This is shown by the fact that vaccine lymph diluted by water or serum does not become less active, but only less certain; where it does take, the symptoms are as severe as usual. In vaccine lymph there are two kinds of solid bodies: leucocytes—*i.e.*, bodies corresponding to the white blood corpuscles—and others infinitely smaller and less distinct. The poison is, further, not of a crystalline character, but colloidal, for it will not diffuse; probably, therefore, it is of an albuminoid character. Now, the question comes to be, to what do these exceedingly minute solid particles of colloidal matter owe their power? Is it to their power of growth and reproduction—that is, life-force—merely, or to some other kind of influence? We know that a yeast plant or a vinegar plant introduced into a saccharine fluid grows at its expense until the sugar is exhausted, alcohol and vinegar being the accidents, the result more yeast and more vinegar plant. In disease, certain unknown germs (one is tempted to ask, germs of what—what do they come to?) are supposed to be introduced into the system, to multiply amazingly, and yet to remain unseen—to be but germs. There seems to be no life-history appertaining to them—nothing, in short, save their disease-producing powers.

But there is another form of the theory which one can understand. Let, during an attack of scarlatina, an exceedingly small portion of protoplasm be detached from the throat of the patient whilst the Physician is examining it, conveyed by the agency of the breath to the Physician's own throat, there taking root, as we see a portion of transplanted cuticle do, affecting the neighbouring parts with its malign influence—as muscle forms muscle and bone forms bone—scarlatina follows in its train. But this is something different from an accidental result of mere vitality; something other than the alcohol which accompanies the growth of the yeast plant. When one is bitten by a mad dog, and hydrophobia ensues, we can understand that it results from some poisonous material introduced by the bite of the animal, yet we are not aware that there is any apparent difference in his saliva. The disease apparently originates spontaneously in the dog. Has it ever done so in man? Dogs can communicate the disease one to another, and also to man, but man cannot to any other animal. Were there certain germs appertaining to the disease, and alone capable of producing it, these facts would be difficult of explanation; all, however, may be accounted for by the supposition that the more minute salivary corpuscles have undergone some important change, producing the disease in the animal itself and in others into whose body they are introduced.

It is quite clear that the germ theory as ordinarily understood allows neither of the introduction of new diseases nor the extinction of old ones; yet both are matters of history. It is tolerably certain that typhus may arise from the hardships of war, from filth and over-crowding; yet these are not germs. Typhoid fever is generally—we do not say invariably—associated with bad drainage and impure-water supply, but it is not at all clear that typhoid stools are necessary to render the water poisonous. In short, using the word germ in the sense we have done, as meaning something as definite as a bit of transplanted cuticle, we can understand a germ theory of disease; but the germs that are untangible, continually receding as they are approached, about which we know nothing, had better, we think, remain unknown.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

It may be useful briefly to call attention to the conditions under which the benefits conferred by the Medical Officers Superannuation Act, 1870 (33 and 34 Vic., cap. 94), can be granted.

It is provided by section i. of that statute that the board of guardians of any union or parish, or the board of management of any district may, with the consent of the Poor-law Board, grant annual allowances to their Medical officers under and subject to the provisions of the Act to Provide for Superannuation Allowances to Officers of Unions and Parishes (27 and 28 Vic., cap. 42), "notwithstanding such Medical officer shall not have devoted his entire time to the services of union, district, or parish."

It appears, therefore, that, in the case of a Medical officer, the conditions precedent to the award of an allowance to any other Poor-law officer under the 27th and 28th Vic., cap. 42, must be fulfilled. The latter Act provides that an officer who shall become incapable of discharging the duties of his office with efficiency, by reason of permanent infirmity of mind or body, or of old age, may, upon his resigning or otherwise ceasing to hold his office, be granted an annual allowance not exceeding two-thirds of his salary; that the allowance shall be payable to or in trust for the officer only, and shall not be assignable nor chargeable with his debts or other liabilities; and that no officer shall be entitled to an allowance on the ground of age who shall not have completed the full age of 60 years, and shall not have served as an officer of some union or parish for twenty years at the least.

Having regard to the wording of the Act, it appears to be necessary that an officer shall actually resign or cease to hold office before an allowance can be awarded to him. It is wholly within the discretion of the guardians whether, or not they will grant an allowance in any case, and, if they do so, what the amount of the allowance shall be, within the limit of two-thirds of the salary, as prescribed by the Act. It further appears to be contemplated that, in order to qualify an officer for superannuation on account of age, he shall have had a continuous service of twenty years in *one* union. The prescribed condition cannot be looked upon as fulfilled by a service of twenty years made up in several unions. Furthermore, it is provided by section ii of the Medical Officers Superannuation Act that no allowance shall be obtained by an officer under that Act on the ground of permanent infirmity of mind or body, unless a Poor-law Inspector, or some person in that behalf, authorised by the Poor-law Board, shall have first certified that in his opinion such officer has, by reason of such infirmity, become incapable of performing the duties of his office with efficiency.

One other point may be worthy of notice. As the Act provides that the officer may be granted an allowance not exceeding two-thirds of his *salary*, it might be open to question whether, in computing the allowance in the case of a Medical officer, the extra fees which, in some cases, form the larger portion of the remuneration attached to the office, could be included in the term *salary*. This point appears to be settled by section i. of the statute 29 and 30 Vic., cap. 113, in which it is provided that in computing the salary of an officer for the purposes of the 27th and 28th Vic., cap. 42, the amount of the *emoluments* of his office, on the average of the three years concluded at the last preceding quarter, may be taken into the calculation by the guardians. We fear, however, that a Medical officer cannot hope that amongst his emoluments will be included the fees received for the examination of lunatics prior to their removal to asylums, such examination having been made by order of the justices, to whom it was competent to employ any Medical Practitioner, whether Medical officer or not. As experience shows the working of the Act, we propose to recur to this subject, and to point out such details as may be useful to Medical officers in making statements of their emoluments with a view to superannuation.

Scarlatina has broken out in an epidemic form at Liverpool.

THE WEEK.

TOPICS OF THE DAY.

The Fellows of the Royal College of Physicians met on Thursday, last week, for the purpose of discussing the questions of Medical legislation and the unification of examinations. The College has seen the improbability of any successful efforts being made to pass a Medical Bill through the two Houses of Parliament in the ensuing session, and the Council and Fellows have therefore come to the conclusion that it is wiser at once to attempt the probably more easy task of negotiating with the other Medical authorities for the establishment of conjoint examinations. On the question of the extent and character of these negotiations, there seems to have been a difference of opinion between the Fellows and the Executive of the College. The proposition offered to the Fellows by the Council was that the College of Physicians should open negotiations with the Royal College of Surgeons exclusively for the establishment of a combined examination. As this proposal would have been in direct contravention of the resolution of the General Medical Council, which recommended a general combination of examining boards in each division of the kingdom; and as, moreover, it could be productive of no real reform whilst the other established Medical authorities of the kingdom possessed a full power of carrying on rival examinations, we are not surprised that it excited opposition. We are very glad to learn that the Fellows of the College, on an amendment moved by Dr. Quain, have by a large majority thrown out the proposal, and have passed a resolution to the effect that the committee which was appointed last year for the purpose, with certain additions to its number, should reopen negotiations with the other Medical examining bodies for the establishment of a conjoint examination in Medicine, Surgery, and Midwifery in England and Wales. We can only hope that the efforts of the committee will be successful—at least that they will not be frustrated by any attempt to alienate any one of the examining bodies by placing it in a position which neither its honour nor its past services in the cause of Medical education would permit it to accept. Any such attempt can only end in the defeat of the whole scheme.

It is understood that the Royal Medical and Chirurgical Society are again to be summoned for one more "last discussion" on the scheme for amalgamating the Medical societies. It appears that one of its laws permits a renewal of the discussion on a technical point; and this law is to be taken advantage of by the supporters of the scheme to endeavour to obtain from the Society a reversal of its decision. We confess we are sorry that such a plan of action has been decided upon. Ample opportunity has been given the Society for expressing its opinion, and we have no reason to think that the Society is now desirous of retracing its steps, even could it do so with consistency. We think that Mr. Paget's amendment, which was carried by a large majority at the last meeting, left ample scope for bringing about a closer union of the Medical societies without infringement of the independence of any. We believe that a temporary measure, producing closer union for work and mutual help, would probably meet with universal favour, and might in the future lay the foundation of an Academy of Medicine, for which, we regret to say, the present does not seem ripe. For instance, the following proposition, which we believe emanates from the present President of the Pathological Society, might thus draw closer the bonds between the working Medical societies of London. Let the Medical societies meet under the same roof, in a building erected or purchased for the purpose. Let each society have its separate apartments, but let there be a reading-room common to all, to which the members of all may have access. Let each society admit to its meetings as visitors the members of the other societies, and let the *Transactions* of each be obtainable by the Members or Fellows of other societies at cost price. In all other respects, let each society maintain its separate corporate existence, and manage entirely its own affairs. Such a scheme must, we think, commend itself to all. It would give most of the benefits of union, and would avoid nearly all the drawbacks of amalgamation.

We hear that the University of London is in a position to carry out the provisions of the Brown bequest, and will shortly acquire the necessary buildings and grounds for the purpose.

Our readers will, we are sure, be glad to hear that the Council of the University of Edinburgh have decided against the education of male and female students in the same Medical classes in the University, and that the authorities of the Royal Infirmary of Edinburgh have determined not to admit women to the Medical and Surgical practice of the Infirmary. We congratulate the Medical School of Edinburgh upon this resolution. As we have repeatedly affirmed, we would not hold up a finger to prevent women acquiring Medical science if they wish to do so, but, for the sake of common decency, do not let them be taught in the Hospitals, schools, and dissecting-rooms appropriated to students of the male sex.

COMPULSORY SUCKLING.

We hear a good deal now of the "compulsory" principle in legislation in contradistinction to the permissive; but we doubt if there be any law or mechanism which can compel a woman to suckle her child, and, in fact, keep it alive, if she be minded to the contrary. A young woman was lately confined of an illegitimate child at Liverpool, and, according to the midwife, gave expression to some very unnatural sentiments, saying she wished the child was dead, as she did not like her friends at Stafford to know that she had been in such a condition. The midwife told her she would do her best to keep it alive, upon which the mother declared that she would not nurse the child. Although she had a good supply of milk, she refused to apply the child to the breast. The child was entrusted to the care of Ann Worthington, living in Doncaster-street, who was to receive five shillings a week for the care of the child, with an additional sovereign to be paid at once. This woman asserted that she had taken proper care of the child, and there was no evidence to the contrary. The infant, however, did not thrive, and died on the night of the 14th inst. Intimation of the death was communicated to the mother at Stafford, and the child was taken to the parish burial-ground, in Vauxhall-road, for interment. The case was brought under the notice of the coroner, who deemed an investigation necessary. It appeared from the evidence of Dr. Costine that the child was prematurely born, and had some abnormal peculiarities. It was also very weak and in a state of low vitality consequent upon its premature birth. Under these circumstances, being deprived of its natural nutriment was very prejudicial to it, and probably accelerated its death. The jury returned a verdict in accordance with the Medical evidence, and expressed their opinion that the conduct of the mother was unsatisfactory and unfeeling. They also wished the coroner to admonish the woman who had undertaken the nursing of the child as to the impropriety of the system of baby-farming. The coroner administered a rebuke to the nurse for mixing herself up in baby-farming transactions, but refrained from addressing the mother of the child, who had shown herself considerably affected during the proceedings, having been twice removed from the Court in a fit. To any one acquainted with the way in which these jobs are managed, the whole proceedings look like a sanctimonious joke, the climax of which was the two "fits" of this "considerably affected" young woman, whose affection did not, however, induce her to put her infant to her full bosom. As for the cant about "baby-farming," does the coroner mean to say that no woman is to take in a child to nurse? If so, the condition of these unhappy creatures will be, if possible, worse than ever. There is one measure, however, which might be

adopted: make imperative a public inquiry by a coroner, or, still better, a Medical Officer of Health or Medical Registration Officer, into every case of death of a dry-nursed baby; then frail young women will learn that they cannot "hide their shame" by letting their baby be quietly starved to death.

THE SIEGE OF METZ.

We are pleased to see that two Surgeons of the International Society for Aid of the Wounded, Drs. Ward and Good, the former English, and the latter American, who had served in Metz during the siege, have been decorated by the French authorities for their attention to the wounded. Dr. Le Fort's volunteer ambulance for the army of the Rhine was also in Metz during the siege, and is said to have been of immense service to the French army in the field. The sick in the town after the capitulation were about 20,000, besides 9000 wounded. Of the wounded after the battles of Courcelles and Gravelotte, most of the cases have by this time terminated either in death or recovery. Very many mutilated men are to be seen in the streets. Latterly, almost every operation has ended fatally. Pyæmia, Hospital gangrene, and typhus held their usual sway among the debilitated frames of the besieged. There appears to have been no serious lack of Hospital stores, except in the matter of leeches, for two of which Dr. Ward is said to have paid 180 fr., for application to his colleague, who was suffering from brain fever.

It would appear that, next to the scarcity of bread, one of the chief privations of the besieged was the want of salt, which could only be procured at 5 francs per lb. Water from saline springs is said to have been sold at 1 fr. 50c. per bottle. Drinking water was also very difficult to procure, the Prussians having cut the aqueduct at Goze the day before the battle of Vieuville. For several days the troops had had no bread, and their only food was lean horseflesh, for the best means of cooking which they were indebted to their Prussian prisoners, who chopped their allowance into mincemeat with onions and meal, then consolidated it into a block, and fried it (this the Prussians called "klopp"); but no device could make palatable the flesh, or rather sinews, of the miserable screws killed for the purpose. Notwithstanding the sufferings of the troops, the correspondent of the *Daily News*, on entering the town, found meat hanging in the butchers' shops, the *cafés* were crowded, and there appeared no exhaustion in the stocks of the shops. Tobacco, wine, spirits, and liqueurs were plentiful, and on the evening of his entrance into the town he dined on four courses—no horseflesh—and had half a bottle of wine for 7 fr.

CONTRADICTORY ANALYSES OF FLOUR.

A curious case has occurred at Wellington. Two persons—one a confectioner, the other a baker—were summoned before the magistrates for having adulterated flour in their possession. Samples of flour, properly authenticated as having been purchased at their shops, were delivered to Dr. Johnson, analyst for the county, who analysed them and returned a certificate that they were adulterated with twelve grains of alumina to the pound; but, when the case came on for hearing, not only were the defendants fortified with analyses from Dr. Hill, the Chemical Professor of Queen's College, Birmingham, testifying that there was no alumina in the flour, but Dr. Johnson withdrew his former certificate, and admitted that further investigation had convinced him that it was given in error. The *Wellington Journal* gives due praise to Dr. Johnson for his honourable conduct; and it is not conceivable that the error arose from carelessness or inadvertence, but, as Dr. Johnson himself says, "it appeared, *according to the tests employed*, that alumina did exist to the amount stated." Doubtless Dr. Johnson was misled by the tests he employed and trusted in. We may remark, that any one who desires to know how difficult and treacherous a quest this for alum is, if the old tests are employed, may turn to the methods of practical analysis which we published some years since in the *Medical Times and Gazette*, from the pen of the late lamented Dr. R. D. Thompson. And in the next place, the whole subject of chemical tests requires to be looked at with a sceptical eye. But of this more anon.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.—INFANT MORTALITY FROM DIARRHŒA.

"Health," says the Registrar-General, "has been unfavourably affected during the summer. 124,258 people of all ages died. The annual rate of mortality was 22·3 a thousand, or 1·7 over the average of the summer season. These rates are all to be taken as provisional, as they depend not only on the deaths, but on the population, which will only be enumerated in 1871.

"There were two grand causes of the excess in the mortality; scarlet fever fatal to 7498 lives, simple diarrhœa to 17,647. The diarrhœa ran into cholera in 611 cases, and gave a character to the epidemic constitution of the season. Diarrhœa was fatal in all England at the annual rate of 3·2 in 1000 living; in the 17 great towns at the rate of 4·8; in the 50 towns at the rate of 4·2; in the rest of the country at the rate of 2·3. The diarrhœa-rate was or exceeded 6·0 in Norwich, Manchester, Bradford, Sheffield, Coventry; 7·0 in Leicester, Liverpool, Salford, Oxford; 8·0 in Leeds, Northampton; 9·0 in Colchester, Bolton, Preston; 11·0 in Wigan. In all these places something is radically wrong.

"It is to be regretted that Bristol, where precautions have been taken to a certain extent by an able Health Officer, on plans thoughtfully suggested, has experienced a considerable mortality, both from scarlet fever and diarrhœa. The 293 deaths from scarlet fever, the 52 deaths from fever, and 156 from diarrhœa in three months, imply some radical defects in the dwellings, sewage, water supply, or other hygienic conditions, which mere quarantine arrangements do not meet. This important and ancient city will, no doubt, under intelligent guidance, discover and apply with energy appropriate remedies. In Birmingham, otherwise lightly visited, no less than 510 death from diarrhœa were registered. In Northampton, by some negligence, almost culpable, the deaths have been allowed to exceed the births, and by measles, scarlet fever, fever, and diarrhœa, among other diseases, to raise the mortality to the annual rate of 43 in 1000."

"The scarcity of water throughout the country was unfavourable to health. The sewage in the rivers and wells became more concentrated, and in the country unclean ponds instead of wells and streams were sometimes resorted to. The means of cleanliness were diminished. The importance of storing up flood waters in the high grounds becomes every year more apparent."

We would venture to call attention to one fact which comes out on a closer inspection of the Registrar-General's Return, and which indicates something more than close dwellings, town air, and foul water as the cause of mortality. It is the fact of the enormous preponderance of infant deaths. Thus, at Norwich, out of 593 deaths from all causes, 238 were under 1 year of age, and 121 from diarrhœa. At Northampton, against 454 births there were 514 deaths, of which 161 were under 1 year, and 91 from diarrhœa. Turn over the Registrar's pages where we may, we come to the same collocation. Town population—infant mortality high, diarrhœa high. Then the question comes, Are town infants *viable?*—do the parents know how to feed and rear them? If they know, have they the means, and especially milk?

DR. DICKSON ON REGISTRATION OF DISEASE.

The registration of disease is advocated on the ground that the loss of service of the population by disease is a thing that ought to be known, and that it is by no means measured by the registration of causes of death. Dr. Dickson, Medical Officer of the Customs, supplies, in his Report on the Health of the Customs Officers during 1869, many arguments in favour of disease registration.

"In last years' report reference was made to consumption as the most important disease in the force, as well as in the population at large, causing far more disability and death than any

other. In this year it caused one-fifth of the whole amount of sickness, and more than half of the mortality. Next to it came bronchitis and catarrh, constituting another fifth of the entire sickness, but without any fatal result, although the former is the malady which chiefly affects the older officers, and frequently incapacitates them for the greater part of the winter.

"To those succeed in prevalence rheumatism and gout, which caused more than a tenth of the sickness in this body of men. These diseases attract comparatively little attention in the sanitary statistics of the country, as they are very seldom directly fatal. But, with the exception of the respiratory affections, which are the bane of our climate, no class of maladies causes so much suffering among all ranks of the community, or more protracted disability to labour, and consequent public loss. As the health statistics of the Customs officers in London may be considered as a tolerably fair exponent of the sanitary condition of the middle-aged middle-class male population of the metropolis, and even of the country at large, a statement of the extent of these diseases in the last seven years may be not devoid of interest.

"The mean annual number of cases for the period was 110, and of days' sickness 1749, giving a percentage of 13 on the entire number of cases admitted to the sick list, and also of 13 on the time lost to the service by illness of every kind. In the London division, rheumatism and the cognate diseases caused, in 1868, the large proportion of 16 per cent. on the whole time lost by sickness, whereas in 1869 not more than 8 per cent. was due to them. The influence of damp, variable weather in exciting rheumatism is well ascertained, and the protracted exposure and strong muscular exertion incident to some of the Customs duties, cannot fail to contribute to its production in such officers as are employed on the water-guard. There is often, unquestionably, a hereditary or constitutional tendency to disease, as well as to gout. But other circumstances, as yet imperfectly known, bearing on this and some other rarely fatal, but not less distressing and important maladies, may probably be brought to light, were some attempt made to register the sickness as well as the mortality of the kingdom."

BRITISH MEDICAL BENEVOLENT FUND.

We are sorry to have to state that the funds of the above excellent Institution are still quite inadequate to meet the many cases of distress so constantly arising among those belonging to our Profession. Only at the last meeting there were *eighteen* applications, and less than £70 at the disposal of the committee; and we are informed by the Hon. Secretary that there are already several cases awaiting most anxiously the relief they hope to get from the November meeting. Death has just removed another excellent friend of the Society—viz., J. Bacot, Esq., one of the Vice-Presidents. G. Burrows, M.D., F.R.S., has been elected President in the room of Sir Jas. Clark, Bart., deceased; and Henry Sterry, Esq., F.R.C.S., has been elected Vice-President.

REPORT OF THE DARMSTADT HOSPITAL FOR THE SICK AND WOUNDED.

We have received a copy of the first weekly report of the Alice Hospital for sick and wounded soldiers at Darmstadt, which we subjoin. The Hospital is supported by the National Society for the Relief of the Sick and Wounded:—

"Weekly Report of the Alice Hospital.—Darmstadt, Thursday, October 27, 1870.—Patients admitted, 53; discharged, 0; deaths, 1. Diseases or injuries: Typhus, 2; typhoid, 10; dysentery, 14; diarrhœa, 16; pneumonia, 2; rheumatism, 7; cynanche parotidea, 1; cynanche tonsillaris, 1. Total, 53.

"Her Royal Highness the Crown Princess of Prussia visited the Hospital on the 21st inst. at 5 p.m., and on the 22nd at half-past 9 a.m., and inspected the wards and the whole of the domestic arrangements. She also examined minutely one of Dr. Mayo's new sick transport carts. Her Royal Highness the Princess Carl also visited the Hospital on the 24th inst. The patients admitted this week have been nearly all very severe cases, transferred from other Hospitals in the town, or brought from the railway. The death which occurred was from typhus followed by pneumonia. The patient died on the third day after admission. A description of the Hospital, with a financial statement, will be published next week. The staff at present consists of Charles Mayo, M.D., Fellow of New College, Oxford, Director; John C. Galton, M.A. Oxon., M.R.C.S., Lecturer on Comparative Anatomy at the Charing-cross Hospital, London; Henry Rundle, F.R.C.S., formerly House-Surgeon to the Winchester Hospital; W. E. B. Atthill, Dresser at St. George's Hospital, London."

ARMY AND INDIAN MEDICAL SERVICES.

We understand that the number of vacancies in the Army Medical Department to be competed for in February next will be about thirty. We have as yet had no information as to whether there will be any examination for admission into the Indian Medical Service.

FROM ABROAD.—THE LYONS AMBULANCES—THE VACCINE VIRUS A FERMENT—CASE OF ŒSOPHAGOTOMY.

By the last accounts which we have seen from Lyons, we learn that great activity prevails in that city in prospect of its becoming the seat of hostilities. Ambulances, both *sedentaires* and *volantes*, are being organised on a large scale; the former provide from 600 to 700 beds, of which number 150 are now occupied, chiefly on account of sickness incurred during service. The Medical Committee has divided Lyons into eleven *circonscriptions*, in each of which the Practitioners have met and agreed upon the measures that are advisable. In this direction, therefore, all is ready, and the Medical Profession of the city expresses its conviction that, as far as the sick and wounded are concerned, they have made every necessary provision. The first *ambulance volante* was dispatched on October 10, having MM. Ollier and Laroyenne as its chiefs. It was proposed to escort it to the station with the band of the National Guard, but the members of the ambulance energetically opposed such a procedure as quite unsuited to the nature of its mission. "We regard, as far more worthy of it," says the reporter in the *Lyon Médical*, "and more suited to the part it has to act, this simple departure without fuss. The passage of an ambulance does not, like that of a corps of troops, arouse warlike images. It does not recall the smell of powder, the blasts of the trumpet, and all the madness of combat. It brings constantly to our minds the sad consequences of battles, the harrowing and bloody side of war, the wounded and the dying. We are well aware that at Paris the ambulances left preceded by bands of music, and having collectors of alms by their sides; but every example is not profitably followed, and we prefer to this noisy accompaniment, the subdued conduct and respectful reception which attended ours. It is to be hoped that if they have made less noise than those of the capital, they will do as much, if not more, useful work." This ambulance was soon at work; for, directed towards the Vosges, it reached the town of Epinal just as it fell into the hands of the Germans. It has, however, been compelled to follow the retreat of the French army to Besançon.

Another ambulance, led by MM. Gayet and Dron, is quite ready, and has probably already set out. An important determination relating to ambulances has been taken by the Société de Sécours aux Blessés. The ambulances hitherto formed have been found too cumbrous, having too large a *personnel* and too much material for rapid motion. As the French are not now enabled to operate in large masses, but by detached corps of moderate size, it has been determined to divide the ambulances, so that a section may be attached to each corps. Thus, the second Parisian ambulance, on returning from Monzon, has been divided into three small troops; and the first Lyons ambulance is to be divided into two, one remaining at Besançon, and the other following the army corps. In future, the ambulances will be prepared beforehand, so as to admit readily of such division, each part being complete in itself, and transport thus rendered more rapid.

M. Melsens recently read a paper at the Belgian Academy of Science "On the Vitality of the Vaccine Virus."

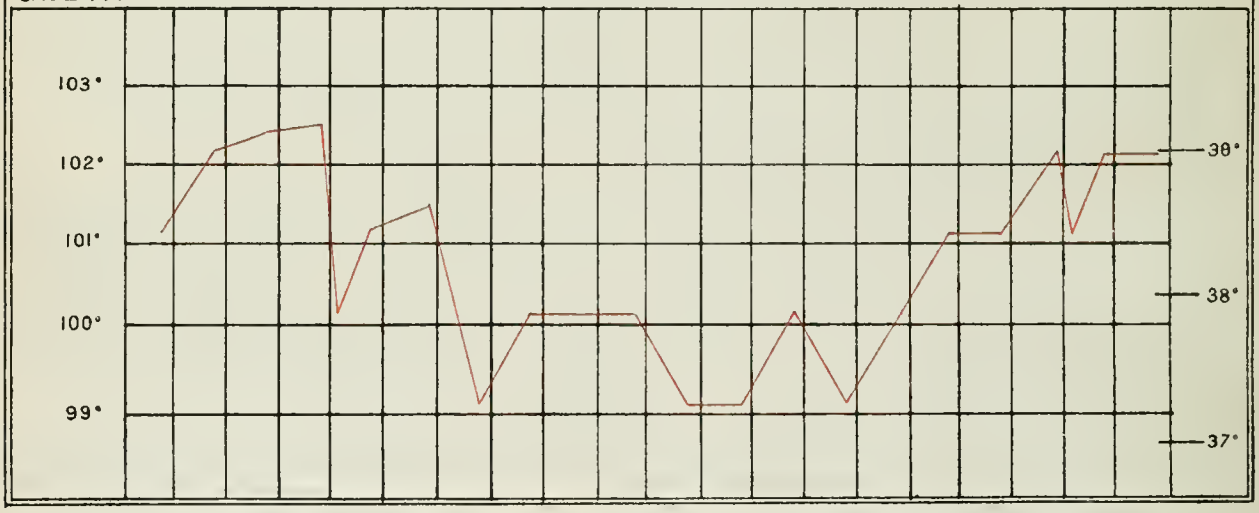
"Without," he says, "pretending to discuss the various opinions put forth on the nature of this virus, I have sought

CASE 76.

PERITONITIS.

CASE 77.

PERITONITIS.

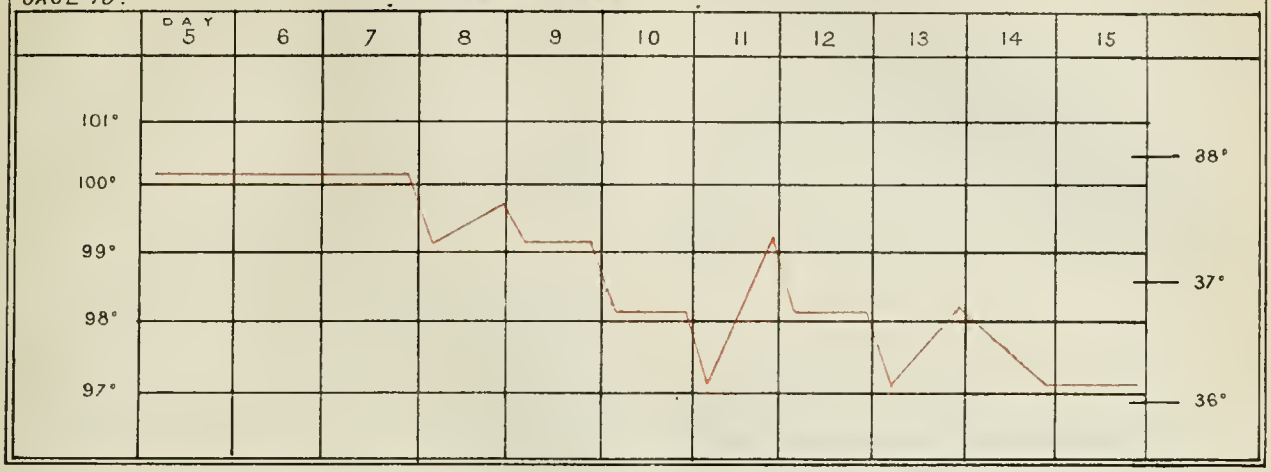


CASE 78.

GASTRIC ULCER.

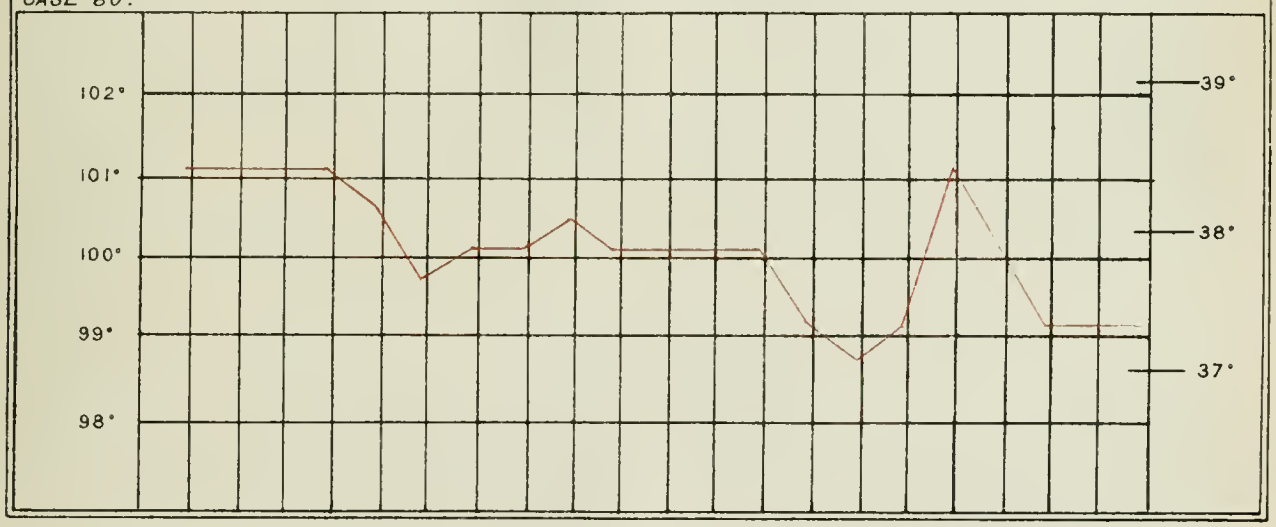
CASE 79.

INFLAMMATION OF CŒCUM.



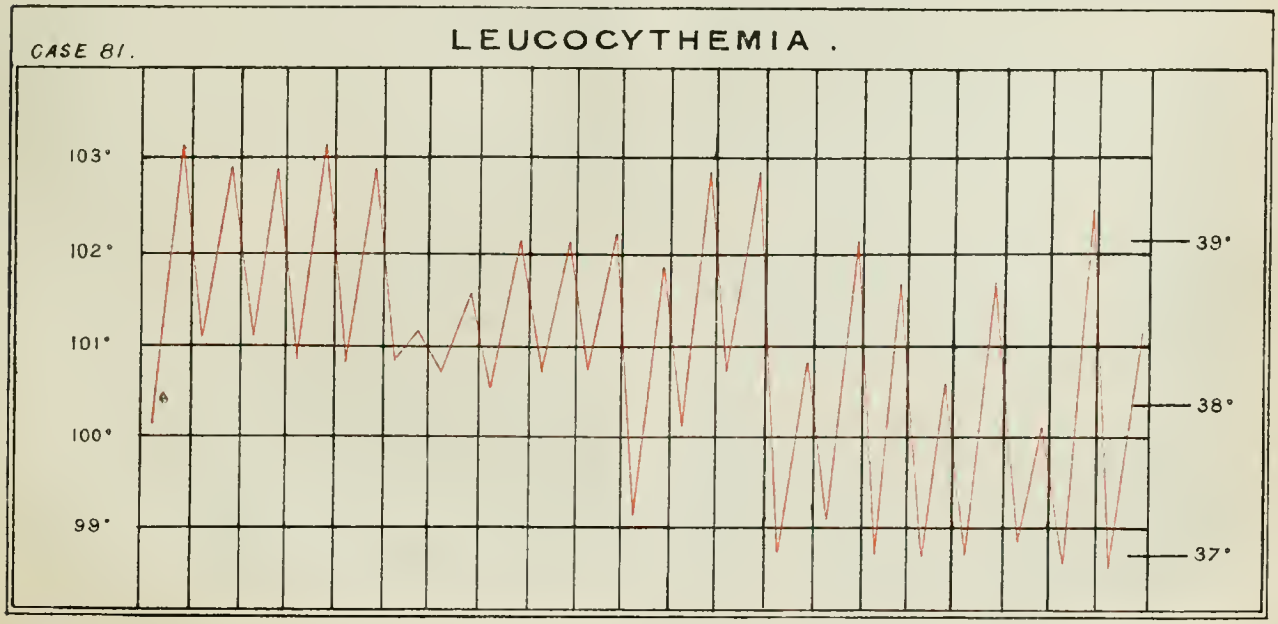
CASE 80.

CHRONIC DYSENTERY.



CASE 81.

LEUCOCYTHEMIA.



to ascertain whether it may not be regarded as a *ferment*, susceptible, when placed in favourable conditions, of reproducing itself after the manner of the alcoholic ferment, or of being assimilated to certain soluble ferments, such as the active principle of malt or the soluble portion of brewers' yeast. If this is really the case, the virus should be *killed* or rendered inert by those bodies which destroy the vitality of the alcoholic ferment. Certain physical actions would lead to the same result—as for example, when it is exposed in the moist condition to a somewhat elevated temperature. On the other hand, the virus should resist very low temperatures under the conditions of my recent experiments on the alcoholic ferment, recorded in the *Comptes-Rendus*, March 21, 1870.

"The result of my first experiment is as follows:—Virus of Jennerian origin, taken on June 14, and contained in four sealed capillary tubes, was sent to me on the 18th. I inclosed them in a little glass tube, having a small diameter and excessively thin walls. This tube was sealed by means of a lamp, and then placed in the centre of a large tube with thin walls, and well protected from the action of the external temperature by linen coverings. The large tube had been previously filled with solid carbonic acid, and to this there were gradually added chilled ether and solid carbonic acid, so as to keep the tube, with the virus in the centre of the paste, for about an hour and a half, at a temperature of 78° C. below zero.

"Two of these tubes were employed on June 20 for the vaccination of an infant 7 months old. Five of the punctures took, furnishing on the 27th five fine pustules, presenting in a remarkable manner the character of good virus. Another tube was employed in vaccinating a child 13 months old, and three fine pustules resulted. I am still pursuing the investigation, with the object of ascertaining whether additional facts will justify a nearer approximation between the vaccine virus and certain ferments susceptible of reproduction external to the living economy—in a word, whether the vaccine virus can be *sown* and multiplied in the vases of our laboratories. Some of my experiments lead me to have hopes of this. Thus far, the conclusion may be drawn, that, leaving out of consideration speculations on the nature of the virus, it is proved that cold of about 80° C. below zero does not destroy the vitality and special action of this virus. At the same temperature the vitality of the alcoholic ferment is still maintained."

A recent number of the *Boston Medical and Surgical Journal* contains the narrative of an interesting case of œsophagotomy, by Dr. Atherton, of Frederickton, New Brunswick. On the morning of June 8, a girl, aged 1 year 11 months, swallowed a cent, one inch in diameter, and was at once seized with vomiting, which continued for twenty-four hours. From that time to June 13, when she was first seen by Dr. Atherton, she suffered from slight dyspnœa and choking cough, with hoarseness and indistinctness of utterance, and could only swallow liquids. There was some fever present, and the tongue was furred. The coin could be only just touched by the finger as it lay transversely in the throat, the swelling of the neighbouring parts impeding the due exploration of the foreign-body. Various attempts were made with the forceps and blunt-hook to extract it, but in vain; and a good deal of the want of success seemed to be due to the continued biting which the patient kept up while the finger was in the mouth. Even when she was fully under the influence of chloroform, the introduction of anything between the teeth was the signal for the commencement of a constant chewing. A piece of chamois leather around the finger made this scarcely more bearable, and there was not room for the use of a gag together with the finger and instrument. The operation was performed on the fifth day under chloroform; an incision from two to two and a quarter inches long being made on the inner side of, and parallel to, the left sterno-mastoid. The upper part of this was about on a level with the upper edge of the larynx, and the lower extended to just above the end of the clavicle. On dissecting down, the internal jugular was seen on the outer side of the wound, and was, together with the carotid and the anterior belly of the omo-hyoid, drawn on one side, the thyroid gland and trachea being, at the same time, held on the other. About the middle of the wound, at its deepest part, the edge of the coin was felt through the œsophagus; and a slight touch of the knife bringing it into view, it was extracted by a dressing forceps, after some enlargement of the incision. No vessel of any size was wounded, and not more than a drachm of blood was lost. Milk gruel enemata only were administered as food for the first two days after the operation, a few drops of opium being added to aid their retention. On the third day milk was commenced in teaspoonfuls, and gradually increased from a gill to a quart in the twenty-four hours. After the sixth day no portion of this returned by the wound, and by the eighth day the patient was enabled to take a swallow or two without its doing so. After this she gradually improved, continuing to take only fluid food until the wound had healed. When last heard of, July 9, she was doing very well.

DR. RICHARDSON ON THE MEDICAL ASPECTS OF THE GERM THEORY.

In our last week's number we gave an abstract of that part of Dr. Richardson's communication "On the Medical Aspects of the Germ Theory" which related to the descriptions, analyses, and objections to that theory. In the present abstract we shall epitomise the views advanced by the author on the "physical theory" of the origin of the communicable diseases.

Dr. Richardson commenced this part of his subject by stating that the advocates of a physical theory accept the existence of organic poisons as the causes of the communicable diseases with the same confidence as do the advocates of the germ theory. Moreover, they are anxious to receive every physical fact which comes within experiment. The observation made by Dr. Sanderson, for example, that the part of the matter of cow-pox which constitutes the virus is a colloidal substance; and the observation made by Chauveau, and repeated by Sanderson, that the virus of small-pox matter contains two sets of particles, and that one of these is the true virus are observations to be accepted as all-important. They are, in their way, as important as the discovery in therapeutics that quinine is an alkaloid and is the active agent of cinchona. But the physical theory branches from the vital in that it does not give to the virus, whatever that may be, the power or property of producing disease by a system of reproductive independent growth of the virus itself within the animal. On the contrary, it places the reproductive force in the animal itself—a continuation of force that is already existing. It does not dispute that the poisons assume the solid form, and are carried distances on solid substances, or by water, or on the air, but it puts them within the same circle of changes as other organic substances, and declares their perfect destructibility. Take, in illustration, one experiment:—

The distinguished Fordyce last century tried, with much care, the effect of dilution with water of the virus of small-pox. Up to a given dilution he found the virus active, but at a given dilution he found it inert. He found also that if the virus were active at all it was as effectively so when it was diluted as when it was undiluted. This experiment has recently been repeated by Chauveau, and confirmed. It may be accepted as a fact. The reasoning from it, however, is different: the vital theory claims that the germs or infecting microzymes are mechanically distributed, so that they are not introduced with certainty into the body by inoculation. The physical theory would claim mechanical distribution of the poisonous particles; but it would assume also their molecular disintegration by the water. Thus, the author found that, after diluting snake poison largely with water, not only was the power to infect destroyed, but evaporation of the water and reconcentration did not suffice to bring back the poisonous quality to the matter.

Standing by the physical theory of the poisons of the communicable diseases, Dr. Richardson looks upon the poisons, not as inorganic mere chemical poisons, but as organic products—particles derived from, or rather belonging to, the secretions or secreted fluids of the animal body. Thus, a person suffering from a communicable disease is poisonous precisely as a cobra di capello is poisonous—that is to say, he is producing by secretion an organic poison, which, if it come into contact in

the right way with a healthy person, will reproduce disease. In contagious ophthalmia, for instance, the poison is in the secretion on the conjunctiva; in yellow fever, in the biliary secretion; in cholera, in the secretion of the alimentary canal.

The author next proceeded to explain that the physical theory was consistent with the phenomena of the spreading diseases. No point has been more discussed than the origin of the organic poisons. The vital theorist has tried to trace these poisons to vegetable germs; the chemist, to inorganic substances. The physical view treats abstractedly with neither; it treats simply with change in the particles of the common secretions of the body, as they are passing through an abnormal phase: this change in the constitution of the secretions is due to the operation of two distinct series of causes.

In one set of cases, the change in the secretion is induced by the actual contact of poisonous matter with the secretion. The poisonous matter may be brought into such contact either by direct local conveyance to the secretion or by diffusion into it from the blood. By either of those processes the action set up in the secreted fluid is not a physical reproduction of the very identical portion of poisonous matter originally introduced, but a change by contact, which, once established, extends through the secretion. The secretion, as it is poured out, is thus transformed into a substance the same as that which excited the action; and the process once started, continues to one of two results. The morbid secretion may be carried away, and be replaced by new and healthy secretion, whereupon there is recovery; or, the secretion, not being carried away, may be absorbed into the blood by the ingoing current, to excite changes there also, leading to disorganisation of the blood, and death.

In the second set of cases, there is no original poison introduced, but the secretions themselves, under process of organic decomposition from atmospheric peculiarity, aided or not by susceptibility to change, from the tendencies of the person affected, are rendered poisonous; upon which effects follow precisely as though the poison had been introduced into the body. After illustrating these points from some experiments on pyæmia, the author added that the physical theory thus accounts for the primary development of the organic poisons. The hypothesis, based on a vital ideal, obliges its supporters either to oppose the most obvious truths as to the direct or immediate origin of disease in the body, or to accept the belief of spontaneous generation of life; for as, according to the vital view, there must have been a first germ, so in every case of communicable disease there must have been a previous germ; and we must go back until we are obliged to beg the question altogether, and say it is impossible to arrive at final causes.

The physical theory breaks away from this vital ideal. The theory has nothing to do with the origin of life. The position is simply this: here is a secretion thrown out by the living organism; can it, by being brought into contact with poisonous secretion, or by being subjected to external influences, capable of changing its composition, become physically poisonous? The theory answers the question, and brings forward both experiment and experience in proof. It changes the *venue* from an unnatural to a natural position. It says these diseases are not the result of physiological actions new altogether in essence, but are the result simply of perverted natural acts. The explanation of the perversion, as supported by the theory, is also simple. It says—here is a secretion which is being constantly thrown out from the blood by the force of the circulation, as pepsine is. To-day this fluid is natural, and causes no injury locally or generally. But there is introduced into the secretion, or there is generated in it, a poisonous product, which, at a given time, can transform it from a healthy into a poisonous state. The change thus set up, every fresh grain of secretion thrown out upon the infected surface is subjected to the same action of poison, unless, at first, the secretion be sufficiently rapid to bear the poison away, or unless in process of time the secretion be free enough to carry the poison away without destroying life: and so the poison increases, the continuous force of the circulation itself sustaining the progression, and the force of secretion becoming, in fact, the force of reproduction.

The author believes it even possible that the body, while alive, and while *supposed to be healthy*, may actually produce a poison which, coming in contact with susceptible secretion, may set up disease. Thus, in the latter part of 1865 and beginning of 1867, Dr. Huntley, of Jarrow-on-Tyne, was so unfortunate, despite every precaution, as to communicate puerperal fever to no less than sixteen ladies. By a process of reasoning which does as much honour to Dr. Huntley's manly honesty as to his logic, he proves that there could only have been one source of this poison—"the perspiration of his own hand."

Introduced, not by the systemic method, but either by direct local contact with the secretion or by direct development in the secretion, the poison may be essentially local in its action, and may establish nothing more than a local disease, producing irritation of the surface on which it appears. So much fluid may thus be thrown off that the poison itself shall be borne away, and by such elimination recovery may take place; but there is sometimes danger even in these cases—first, that the secretion, being poured profusely into organs essential to life, such as the trachea, shall obstruct natural function essential to life; secondly, that the secretion, when it is derived from a large surface, shall destroy by exhaustion; and thirdly, that from injury of the secreting surface there shall be absorption of poison. In cholera the danger at first consists in elimination; during the true choleraic stage there is no evidence of absorption into the blood, and the patient may die simply because the blood is drained of water. But after recovery from the eliminative stage, there is often an ingoing poisonous current, and then follows the well-known consecutive fever, typhoid, the wounded absorbing surface being in this case the alimentary canal.

In some parts of the body the introduction or formation of the poisonous agent is almost necessarily fatal, for the mechanical reason that the eliminated matter cannot find its exit. Thus, pyæmic poison introduced into a serous cavity of an animal always proves fatal, because there is no escape for the exudation; while on an open wound recovery will not unfrequently take place, if the exudation be free and if it be allowed ready exit.

If in the case of all the communicable diseases the argument were followed, then it would support that in every instance the disease is first local, and that the intensity of the disease and its danger depend on the secondary absorption, and on the continuance of the local derangement of secretion into the plasma from which the secretions are derived.

Dr. Richardson next maintained that the physical theory explains the specific character of each poison. Whatever, he said, may be the mode of entrance of the poison, whether by the blood or by direct contact with a secretion, the order of progress is that the poison, if it act at all, acts exclusively and according to its nature—that is to say, by election on one secretion, which from that time will become the centre and the source of the subsequent danger.

It is by this means the specific properties of poisons are illustrated. It is for this reason that the poison of pyæmia will not produce small-pox, and the converse. It is for the reasons that have been assigned that, in some of the cases of communicable disease, the symptoms manifested are local only, and therefore comparatively light, while, in other cases, they become general under the influence of the ingoing current of a poisonous secretion.

As each of the secretions in its natural state possesses specific properties, so each one of them, in its diseased condition, acts as a specific poison; and, as each one has a specific local position in the body, so each one, when acting as a poison, excites special local symptoms, by which, usually, the disease presented is summarily defined in our nosologies. The communicable diseases may, in truth, be closely enumerated by the secretions.

Again, the author contended that the physical theory accounts naturally, not only for the reproduction, but for the limitation of the poisons.

If it be the fact that the particles of a secretion or fluid of the animal body may become poisonous, the reproduction of the poison during the life of the animal producing it and the dissemination of it must follow. But this view restrains the dissemination of the poison to the life of the affected animal; and it accepts that the eliminated poison product, unless it be carefully preserved, is open to the common forces of destruction outside the body. These limitations are true. The dead are not contagious like the living; and epidemics cease temporarily, or even permanently, as their poisons are resolved into elementary forms of matter.

Once more: the theory accords with certain striking pathological facts, which are considered broadly as *constitutional*, rather than general. There is, that is to say, such a thing as physiological tendency to special disease, which is explainable as due to physiological peculiarity of secretion, and possibly to nervous influence over secretion. One disease is strikingly illustrative of this fact—and most important is the lesson it teaches—viz., diphtheria. In a certain household five members, living under precisely the same conditions, were attacked with common cold. In one the secretions of the throat and nose underwent sudden change: there was absorption of a poisonous

secretion; diphtheritic asthenia was set up, and there was rapid death; while in all the other cases there was no more than catarrh. Upon what depends such difference? Not on the air; that was the same to all. Not on food; that was the same. Not on anything that can be touched, until we come to difference of secreted fluid, which in one case rapidly underwent change and transformation into a poison, and in the other cases remained unchanged.

On this very same principle the theory offers a reasonable explanation of the comparative immunity, or comparative greater risk, of different persons at different ages, while it gives the best reason adducible for the fact of non-recurrence of the same disease in the same person on the ground of elimination of a secretion charged with particles susceptible of change.

The theory equally well accords with the facts relating to season: it is natural in seasons when there is excess of moisture in the air and coldness, when the animal fluids are eliminated slowly, when particles of organic matter find a ready vehicle for their transmission—water vapour—and when local chemical changes are most active from the presence of water, it is natural then that changes in secreted fluids will be most active.

Lastly, the theory accords with the phenomena or symptoms of the diseases. As every secreted fluid in the body is separated under special nervous influence, so an interference with a secretion on a secreting surface will first make itself felt in disturbance of nervous function. The febrile condition following upon the introduction or development of poisonous fluid is equally well followed on this as on the opposing theory, while the local complications of the various diseases which form a part of the disease is traced by the physical theory, with a precision as perfect as a confessed theory can be expected or asked to supply.

Such is the physical theory as Dr. Richardson put it for discussion by the side of the vital. If it be urged, he said, that we have no proof of the nature of the assumed physical change by which a natural is turned into an unnatural substance—a poison—the answer is that the evidence, even on this, is better than any evidence bearing on the same question from the vital side. In the study of change of colloidal bodies, by contact; in the study of the action of the different oxygens on animal fluids; in the study of the action of known organic chemical compounds, such as nitrite of amyl, we find ample suggestion for the strictest experimental research promising direct discovery on the organic poisons derived from animal bodies.

In conclusion, Dr. Richardson said his great object had been to show that the germ theory of the origin of the communicable diseases was not to be accepted in one eager grasp as the absolute truth. Nay, that, beautiful as it was from analogy, and grand as it was as a generalisation, *if it were true*, it may after all be mere illusion, so that in time the wonder shall be—not for the theory, but for those who have sweltered to prove it, and have proved it—vanity.

DISCUSSION.

The discussion on the above paper was taken on Monday last, at the Medical Society. Mr. Gay presided, and opened the business by reading a short abstract of the paper, and by calling upon the Fellows to consider it in all its bearings. The debate, which lasted two hours and a half was sustained by Mr. De Méric, Dr. Sansom, Mr. Brudenell Carter, Dr. Burdon Sanderson, Dr. Schuloff, Dr. Crisp, Dr. Semple, Mr. C. Brooke, Dr. Routh, Mr. Wolfe, Dr. Silver, Mr. Jabez Hogg, and the President. With the exception of Dr. Sansom, the germ theory, pure and simple, cannot be said to have had an advocate. Dr. Richardson replied to the questions raised, and the Society adjourned.

REVIEWS.

The St. Andrews Medical Graduates' Association Transactions, 1869. Edited by LEONARD W. SEDGWICK, M.D., Hon. Sec. London: John Churchill and Sons. Pp. 306.

IT is not easy to criticise a book of a composite nature like that which lies before us. At once an organ of a somewhat powerful Society and a kind of university calendar, it aims, further, at being a vehicle of communicating the labours of the members of the Association to the outer world. We shall accordingly limit ourselves strictly to the last division of its contents, which commences with the annual address of the President, Dr. W. B. Richardson, on the Science of Cure. With the substance of this at least our readers are already acquainted through our columns, and we will not dwell on its merits. It is succeeded by a paper by Dr. Black, of Chesterfield, on the Clinical Examination of the Urine. This is one of the most elaborate articles, if not most so, of those contained in the volume, and yet it is not quite satisfactory. We most cordially agree with Dr. Black in abusing the term *extractive* as a chemical constituent, and yet it is not at all clear that the omission of the substances so represented adds to accuracy. In short, we are not inclined to accept Dr. Black's views as to the composition of urine as absolutely correct. Be that as it may, he makes some shrewd observations. Take the note that the quantity of urine is increased in certain headaches. This is a fact assuredly yet seldom noted. But we are inclined to think he goes out of his way when he points out the value of a merely physical examination of the urine as a means of prognosis in active disease. In the first place, he himself admits that the general constitutional signs must be those to indicate the proper time to examine the urine for this purpose. Why should they not be equally useful for the purposes of prognosis itself. So, when he deals with the density of urine, he affirms that a density of 1040 would render the existence of sugar in the urine as absolutely certain. Generally speaking, we are not inclined to deny this, yet we remember a case where the specific gravity of the fluid was 1050, yet it was without a trace of sugar. So, again, as a test of the advance or standstill of pulmonary phthisis, we should prefer the thermometer to the urinometer. When Dr. Black comes to speak of the colour of urine in diseases, he fairly goes beyond us. Thus, a dead or dull colour he attributes to "a giving way of those molecular forces which hold the organic atoms of the urine in vital bond." We should give it a much shorter name; but perhaps we had better say no more on the subject. All honour is due to Dr. Black for perseverance in a somewhat unattractive study.

A highly interesting communication from Polli, of Milan, on the Effects of Haschish (why not Indian hemp?) follows. The experiments concur with the observations already made. A kind of intoxication is produced by the drugs, but peculiar in this—that, while retaining consciousness, the individuals subjected to its influence lose all self-control, and behave like madmen, even though they know that they are acting foolishly. There is, further, a note favourable to its use in melancholia and hydrophobia.

The paper which follows, by Dr. Cholmeley, is also therapeutical, and is admirable. It deals with the Therapeutic Action of Chloride of Ammonium. As a remedy this has long been known in Germany, and we ourselves have habitually employed it for a long time in certain forms of headache. It has not, however, been in such cases alone that Dr. Cholmeley has found it beneficial, but in a wide range of nervous complaints, and in a form of disease where we have no experience of its benefits—namely, amenorrhœa. Both in this complaint and in dysmenorrhœa chloride of ammonium is strongly recommended by the author.

Next follow some remarks on therapeutics by Dr. Proctor, of York. This gentleman is opposed to the so-called scientific therapeutics of Bence Jones and others, as well as to purely physiological research. The system he would advocate comes to something like homœopathic provings, without their humbug—in all cases, the modifying circumstances to be carefully noted. Dr. Laurence, of Montrose, follows with a very good paper on Aphasia. He is not inclined to accept the localisation theory of speech; at all events, he inclines to the belief that the third cerebral frontal convolution is not the site of the faculty, but rather that this portion of the brain is more liable to softening, accompanied with other changes inducing loss of speech. Dr. Day writes on Gastric Neuralgia. A few cases are given, and the treatment is elaborately recorded. Dr. Norris has a short paper on Melanosis. This he thinks allied to cancer in its heredity, and that one having melanosis other members of the same family may have true cancer; also that, although generally a disease of middle or more advanced life, it may occur much earlier. Several very interesting cases are recorded.

A most interesting paper, entitled "A Study of Convulsions," by Dr. Hughlings-Jackson, comes next in order. He here limits himself to the simplest kind—namely, unilateral spasm, of which he recognises three varieties—spasms beginning in the hand, spasms beginning in the face and tongue, and those beginning in the foot. Of these there may be all degrees, and several most instructive cases are here detailed, illustrative of the author's views.

A good practical article on Points to be observed in Ovariotomy, from the pen of Dr. Lloyd Roberts, of Manchester, follows, which we can only commend and leave to its readers. After which we encounter a kind of controversial essay on

Prurigo and Pediculosis, by Dr. Tilbury Fox. This gentleman's views on the matter are well known. He maintains the accidental coincidence of these merely, or rather that the prurigo of pediculosis is something different from true prurigo. There are some interesting details on the anatomy of the body-louse, with an illustration. This part of the volume is concluded by a long and interesting chapter on Intermittent Pulse and Palpitation, by Dr. Richardson. A lecture on that subject has already appeared in these columns, so that our readers are acquainted with at least the style of Dr. Richardson's views; they are here, however, more fully worked out, and on certain points made clearer. We heartily commend it to those who have not yet made themselves masters of the subject.

The regulations, etc., of the University of St. Andrews conclude what we must in all justice pronounce an able and a readable volume of *Transactions*.

NEW BOOKS, WITH SHORT CRITIQUES.

Plain Words on Medical Subjects. By W. A. Johnson. (For gratuitous circulation.)

*** This pamphlet offers a striking contrast to the little *brochure* we noticed a few weeks ago by Dr. Brydges. That was a practical exposition of the mode in which health and life might be preserved, and written in simple language; the work of Mr. Johnson, though we do not object to the *style*, we fear in the general reader will give rise to many nervous affections—many fancied diseases.

The Roman Climate: Its Influence on Health and Disease, serving as an Hygienic Guide. By G. Taussio, M.D.

*** The short treatise, of which the title is given above, is the production of a learned and experienced German Physician residing in Rome. In a small compass much valuable information is given respecting the place, the people, and the climate. To invalids who think of spending the winter in Rome, it may be recommended for its sanitary directions and cautions, whilst it may be consulted with advantage by those members of our Profession who are called upon to advise in the selection of health-resorts for their patients. Although giving frequent evidence of its foreign origin, the book is written in very readable English, and although containing a few clerical errors, it is a very good specimen of Roman typography. It is only needful to add that it may be obtained in London—from Ridgway, in Piccadilly.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

October 31.

"Who is to fill our Hospital appointments?" is the general cry here, and "Who are the most eligible and best-fitted candidates?" is the question of the day. It is debated on all sides with different degrees of warmth and partisan spirit, not, however, unpervaded with a certain healthy proportion of animus, which at present is good-tempered, and not overstepping the bounds of Professional propriety. The governors of the General Hospital, having resolved to appoint two more officers to their charity—one Medical and one Surgical—has called forth several promising aspirants for those offices. For the Surgical post, three candidates have already made themselves known, and have issued their manifestoes for the suffrages of the voters. Each of them is favoured more or less with high Professional qualifications; this prevents my particularising the attainments of the one who is said to be the best qualified. Doubtless the merits of each will be amply discussed, and meet with just recognition. At the Queen's Hospital there is a Surgeon wanted to fill the re-awakened office of Surgeon-Accoucheur, and there is every probability of there being a spirited contest. In my last communication I stated that it was proposed to re-open the midwifery department. This has been done, and in future there is to be only one Honorary Surgeon-Accoucheur, assisted by a Resident Obstetric Officer. For the former office, four candidates have sent out testimonials, amongst whom I notice the names of Professor Clay (the able translator of Kiwisch's work on "Diseases of the Ovaries") and Dr. Ecole; the former held the office for some time in conjunction with Dr. Suckling, but resigned because he could not bring about the rectification of irregularities in the department, which he wished to do, his aim being to place it on a better and more dignified basis. Now, the arrangements which he then advocated having been adopted, he comes forward again to reap the advantages of them, and very justly so. Dr. Ecole succeeded Mr. Clay, and held the post for some years—in fact, until the department was abolished. He, therefore, it must be admitted, has a claim to the support of the governing body; and if the *genius loci* of the institution can secure it for him, his election is sure. It is to be hoped that the testimonials of the respective candidates will have due weight.

There is a fair entry of students at Queen's College, and the old-standing debts of the Institution are wiped off, or nearly so; therefore its future brilliant career may be regarded as assured. Each Hospital has also its share of students—the Queen's having the largest number. I believe there is a scheme on foot to promote an amalgamation of the clinical teaching of both Hospitals; if this is effected, it will do away, if any exist, with rivalry or seeming opposition in the two schools. The clinical teaching at the Queen's is excellent, and is highly extolled and appreciated by the students; at the General it cannot be better.

Yesterday was Hospital Sunday; the collections this year were for the amalgamated charities, among which was the Homœopathic Dispensary, and sharing alike the confidence and liberality of a not over-discriminating public. But it is only just to mention, which I do *extra muros*, that in this charity, when their own remedies fail, they do not hesitate to resort to allopathic modes of treatment, thereby showing that they have some little conscience left, and a scintillation of regard for legitimate authority. May their share of the funds be out of all proportion to their homœopathic doses—is the wish of your correspondent.

LIVERPOOL.

November 1.

For the first time since its commencement, there are indications of a decline in the epidemic of relapsing fever. On the 27th ult., at the weekly meeting of the Workhouse Committee, 1383 cases were reported to be under treatment, against 1402 on that day week. As yet, an absolute diminution in the number of patients is confined to the parish. In the out-townships, however, where the epidemic showed itself much later than in the parish, there is a relative decrease, the number in the large district of Toxteth being, on the 27th ult., only thirty-four in excess of what it had been on the 20th. There is reason also to hope that scarlatina, which has been epidemic since the middle of last year, is declining. Dr. Robertson, one of the district Surgeons, stated that he had fewer cases under treatment now than at any period since the middle of February, although within his district some of the most unhealthy streets of the town are included. Still, it prevails largely, and, unlike relapsing fever, is by no means confined to the lowest classes. To it and to diarrhœa, which, during the autumn of the present year, attacked infants with more than usual severity, we doubtless owe our recent very high death-rate. Since the quarter ending September 30, 1866, when cholera was epidemic in Liverpool, the deaths have not been so numerous as they were during the corresponding quarter of 1870; and even in that year (1866) and in 1868, when the summer temperature reached an almost unexampled height, the number of fatal cases of diarrhœa was less than during the present—no fewer than 907, out of the entire number of 4381 for the thirteen weeks, being registered as occurring from it. Of these 4381 deaths also, 1813, or 41·4 per cent., were of infants under one year.

Liverpool at present has the unenviable distinction of being the unhealthiest town in the kingdom. Its especial liability to the introduction of disease from without, consequent on the tide of emigration flowing perpetually into and from it. The very fluctuating nature of the employment which it affords to its myriads of working men, the change from sufficiency to poverty being often dependant on the change of wind, which keeps vessels out of the port; the very large proportion of the lowest and most dirty and improvident class of Irish which crowd its courts; the excessive number of public-houses; possibly the nature of its soil, and more than possibly its cold and damp climate, all concur to bring about this result. With so much disease, its Medical charities should be of the richest; unfortunately, we believe they are among the poorest in the kingdom. Of its three larger Medical charities, two—the Royal Infirmary and the Northern Hospital—are much in debt, while the third, the Southern Hospital, requires £17,000 to enable it to obtain a more commodious building, which, when

it is obtained, will be unable to be occupied without a large addition to the present income. If extensive disease cannot be prevented, the immense wealth of the town should at least see to it that sufficient means are provided for its treatment.

SCOTLAND.

(*From an Occasional Correspondent.*)

EDINBURGH, October 29, 1870.

AULD REEKIE is quickly changing its character—so far as its auldness and reekiness go. Whole streets and closes of the old town have been lately levelled to the ground. A great stride has also just been made in its educational arrangements; one public school alone, opened this year, contains 1000 children, and many had to be sent away. The Medical school, too, is flourishing—the largest number of candidates ever known were "up for the preliminary" last week. There are to be four Professors of Clinical Medicine for the future; two to be on duty at a time. I understand that Drs. Bennett and Maclagan will take the greater part of the coming winter session, and Drs. Laycock and Sanders the next summer. This is a useful arrangement for the student, as thereby he can take his Pathology and Practice of Medicine during the winter session, and study the application of what he has learnt by the same teachers at the bedside, when he has less class-work.

The most interesting thing in Edinburgh to an old alumnus like me is the meeting of the University Council, of which there was one yesterday. It was a very lively affair. A proposal for reviving the B.A. degree came up first, which the Professor of Rhetoric (perpetrating an execrable pun) declared would produce not B.A.'s, but Baas. The recent appointment to the midwifery chair was sedulously avoided in the discussion regarding the Curatorial Court. A town-councillor made a very good speech in defence of the corporation of Edinburgh—for there is here, as elsewhere, feud between town and gown. The citizens are proud of their university; and although, in moments of bad temper, or of exceeding provocation by the Profession, they declare they won't help it any more, the affair ends in a wise support of what is really the most popular university in existence, as is sufficiently proved by the fact that the Lord Provost is *ex-officio* a member of the governing body and an administrator of the patronage. The citizens will shortly have to give to its funds with a liberal hand, if they desire to maintain its pre-eminence, otherwise Glasgow, with its magnificent new university buildings, will take the lead of Edinburgh.

The most amusing part of this meeting of Council was the debate on the women-question. The fun was "fast and furious," and it is clear the whole thing has got into the ridiculous stage. Professor Crum-Brown repeated the twaddle about the wonderful intellects of the ladies, and that was all he seemed to say intelligibly, or to be able to say. He was seconded by Dr. Tait, the Professor of Natural Philosophy. This gentleman has a head like Galileo's, and is, I understand, a man of brilliant parts. He wisely said nothing in support of Dr. Crum-Brown's nothing, but *quel diable allait-il faire dans cette galère?* Undoubtedly, the most solid speeches were those of Professors Turner and Lister, in opposition to the motion. Whatever it might mean, it must mean, they argued, mixed classes of men and women, somewhere and somehow. Professor Turner showed, by facts, that the statements about enthusiastic and successful teaching of women and men on the Continent were the merest clap-trap. He had learned from Vienna that many of the teachers there had resolved never to admit women into their class-rooms again. At all the German universities the boast was that no German lady had studied Medicine with the men. At Zurich, the Professors were thoroughly opposed to the system of mixed education, and would gladly cancel it, but they were compelled to carry it out, against their better judgment and feelings. Professor Turner also showed that the opinions of the intelligent public, of the Profession, and of the students themselves, were so opposed to it that, if forced upon the Medical faculty, it would seriously affect the reputation and interests of the University—would, in short, deprive it of "its best and ablest students." Professor Lister (who followed Professor Turner) maintained that it was a mistake to suppose that the average of women were at all qualified, either physically or morally, for the general duties of the Medical Profession. He declared that he did not think there was in the length and breadth of Britain a single Medical man, knowing what Medical study is, who would send a daughter to study in a mixed class at the young and simple age at which the study should be begun, and that most of the cases he should have to explain "would be utterly revolting to all idea of maiden modesty." Professor Lister then read an address, signed by above 160 students during the last summer session, thanking the Council for their decision against the mixed system when proposed at the meeting in April last.

The speakers in reply were feeble; they avoided the facts and discussed abstract principles. It is a favourite cant sentiment with the advocates of the new principles and practice of sexualism to maintain that "with the pure, all things are pure," literally; hence, it is as easy and proper for young men and women to dissect the pudenda together as to sit at church together. In matters of science, it is argued, the ladies at least are glaciers of purity, and would freeze to stoney hardness and impotence any erotic excitements that might interfere with the pellucidness of scientific thought and labour. Mr. Blackie, Professor of Greek, dwelt eloquently upon this point with all the fun and frolic which he is privileged to display in public as the Scotch philosopher with the cap and bells. Everybody likes "Blackie." Although he says and does things which would land any other of his colleagues in Morningside, he is always amusing; and whether he is in an amorous or a valorous mood, his humbug is delightfully transparent. And so it was on this occasion. Why (he asked) these prejudices against mixed audiences and classes? What was to hinder a young man sitting beside his sweetheart and holding her hand in the most affectionate manner during the whole time of sermon? (These are long in Scotland.) Some reverend fathers of the churches were listening below, and perhaps the grave voice which uttered, amidst the peal of laughter which followed the Grecian hero's erotics, "Propriety would hinder it!" came from one of them. With the large percentage of illegitimacy for which Scotland is notorious, it would, perhaps, be better not to publicly encourage cuddling at church.

The most amusing hits, however, were delivered by Professor Christison at the Coryphœus of the ladies, Professor Masson. A homily has so frequently appeared in the *Scotsman* just before a meeting of Senatus, or Court, or Council at which the women-question was to be discussed, that it was looked for as usual by the wags on this occasion; and sure enough it appeared in the *Scotsman* in the usual style on the day before the meeting. These homilies are said to be written by one of the ladies, under the inspiration and direction of Mr. Masson or other male adorers. They set forth the wrongs and miseries of "the ladies," their successes at Zurich (this is inevitable), the shame that will follow to the University if it is behind Zurich in liberality, threats of public opinion, and a summons to the ladies' chivalry to the rescue. Mr. Masson having touched upon this manifestation of the public voice as usual, Dr. Christison remarked that a great deal had been said about the public voice, but they knew very well how public voice was got up, and how a few persons were able (quoting Burke) to make their own importunate buzzing pass for the public voice. (Looking round at Mr. Massen; at which uprose a merry round of laughter and applause, and the victim pulled sedulously at his beard). But worse followed. Mr. Masson, with like dangerous facility of assertion, had, a year ago, quoted public voice to the effect that the highest lady in the land had sanctioned the Medical women movement. Dr. Christison referred to this assertion, and said he could positively contradict it. A communication was made to him—not a formal message, but still a message—from the Queen, immediately after the last meeting in April, when this question was discussed, to the effect that her Majesty concurred in the views expressed by Dr. Laycock and Dr. Christison in opposition to it; and she desired that that information should be communicated to them, and that her sentiments should be made known. Uproarious applause greeted this announcement, although nobody really believed that so true a woman as her Majesty is in all womanly virtues could ever have given her sanction, as Mr. Masson alleged; still, it was gratifying to have this explicit contradiction.

Dr. Brown's motion was only negatived by the narrow majority of one or two, but the result was received with rounds of cheers, in the style of the House of Commons. Altogether, this meeting was a great success in regard to debating power, and the introduction of a popular element into academic affairs. One or two secrets were let out. Professor Blackie, in wild exuberance, declared that not a few students in Arts made the five months of the session into four months. They came a fortnight after the opening, pretending that the steamer did not sail sooner, and went a fortnight before the end, because

the steamer was going to sail, but really because they had no money.

To return to the ladies. Two widows and four spinsters are dissecting under Dr. Handyside's guidance. Having made a subject comfortable for them, he set them to work on the perinæum, rather than an arm or a leg. Dr. Bennett says they dissect beautifully. Ten bachelors began, in the same room with the ladies, on another subject, but some of them have been wise enough to go over to the University rooms, as they did need to have their manners polished (which is the good the ladies are to do the grosser sex), and they might be thought a little queer in their notions. *Canards* are current with which young ladies' names are unpleasantly mixed up, ingeniously adapted to the sentiment of the sexualists, "with the pure," etc., but too coarse to repeat. A good comic song is going about in which the inevitable Zurich is introduced with effect.

A laughable hoax was practised on the *Scotsman* newspaper in May last. Her Majesty's Commissioner to the Church of Scotland holds *levées*, and in announcing those presented at one of them, the *Scotsman* gave the name of one female student. It turned out, upon inquiry, that some daring youngster, with sufficient moustache, had successfully personated that distinguished lady, but the purse-bearer had not allowed her (or him) to be presented. The laugh was universal. Other tricks of the same kind have been in vogue, but not quite so innocent. It must be admitted that, however amusing these *canards* and jokes may be, they are far from edifying—are, in fact, injurious to morals, and nullify the sweetening influence of the sex.

The managers of the Royal Infirmary at Edinburgh unanimously resolved, at their meeting on October 31, not to admit female Medical students to witness the practice of the Hospital.

IRELAND.

Dublin, November 2.

The first event, in chronological order, of the Medical Session 1870-71, was the distribution on the 31st ult., at Dr. Steevens' Hospital and Medical College, of the prizes awarded at the close of the preceding session. The Right Hon. Lord O'Hagan, Lord Chancellor of Ireland, distributed the following rewards:—Cusack Medals and Exhibitions.—*Senior:* Wm. Bookey, Carnew. *Middle:* Frederick W. Warren, Dublin. *Junior:* David Bookey, Carnew. *Surgical Clinical Prize:* Frederick W. Warren, Dublin. *Medical Clinical Prize:* John T. Bookey, Carnew. *Midwifery Assistants:* Mr. Alfred Grandison, Mr. Henry Suffield. Certificates of General Attention and Proficiency at Terminal Examinations.—E. H. Allen, J. Bookey, H. W. Burton, G. G. Cook, A. Grandison, T. Hukling, R. Johnson, R. Palmer, C. Turner, and E. W. Wrightson.

The report, which was read by Dr. Hamilton, referred to the impulse likely to be given to true clinical teaching by the testing of candidates for diplomas at the bedside, recently adopted by most of the corporations, and stated that it was the determination of the Medical officers to utilise the great advantages presented in the Hospital to the utmost extent for the benefit of the class, so that the pupils might take a high position, and maintain the character which the Institution has always enjoyed as a school of sound Medical Surgery.

The Lord Chancellor, in the course of his remarks, observed that a leading feature in Dr. Steevens' Hospital was that merit, not money, seemed to be the passport to honour. The purchase system, which, no doubt, very wise men had held to be very valuable, did not prevail there, and the men who gained honour and distinction in its halls, received them as the reward of personal merit. (Applause.) He also observed another important feature in the Institution—the moral character of its student, his success among the patients, his devotion as well as his intellectual qualities, formed an important part of his claim in competing for honours. He could not consider any improvement or innovation more valuable than that which gave the young men of the Medical Profession an inducement to cultivate moral as well as intellectual qualities. The Lord Chancellor concluded his address by returning thanks to those who had requested him to preside.

Mr. R. R. Warren returned thanks to his Lordship, on the part of the governors and the Medical students, for taking the chair and delivering his admirable address.

On the same day the Introductory Lecture of the session was delivered at the Royal College of Surgeons by Mr. Morgan, who referred to the great importance which should now, more than ever, be attached to the Profession of Surgery, owing to the immense field opened to Surgeons in France, Germany, and other parts of the world, and he impressed upon the students the consequently increased necessity for a painstaking study of every branch of their Profession, in order that they might, in the practice of that Profession, be equal to the demands which might be made on their knowledge, skill, and judgment. He endeavoured briefly to show how they should best proceed to become adepts in an art such as that by which, if they could not always cure, they were at all events happily enabled to alleviate the all-chastening influences of pain, a power over which, in all its sad variety, neither wealth nor poverty could hope for exemption, and which formed a great point of sympathy between all classes. The learned lecturer subsequently referred at some length to what had been done all over Ireland for the relief of the poor by the appointment of Medical relief officers in connexion with the Poor-law system, and gave statistics for the purpose of showing the beneficial results of the system of vaccination. From a return lately presented to the House of Commons it appeared that, to bring the deaths in Ireland up to a level with those in England and Scotland, over 300,000 more persons should die annually in this country, or taking the return of 1868, the number of deaths in England to every million of the population was over 22,000, and in Ireland under 15,000. It was found that the number of small-pox cases in England fell off considerably from the year 1864 to 1868—the deaths attributable to that disease being 7684 in the first of these three years, and 2052 in the last. In Ireland, however, the case was more remarkable. There were 854 deaths from small-pox in 1864, and only 23 in 1868. It was plain that the existence of the inhabitants of the rural districts of Ireland was largely dependent on the efforts and talents of the Poor-law Medical officers. In conclusion, Mr. Morgan spoke at some length of the several branches of study which would demand the students' attention.

The Inaugural Address delivered at the opening of St. Vincent's Hospital consisted of a most interesting account, by Dr. Mapother, of the state of the Medical Profession in America, as observed during his recent tour in that country. In the course of his address, the learned Professor touched upon so many topics that it would be quite impossible, within the limits of this letter, with any advantage, to follow him in his observations; instead of attempting to do so, I shall content myself with quoting his concluding remarks:—"I was so pleased," said he, "with my tour that I would urge my Professional brethren to select America instead of the Continent for a six weeks' vacation. The glorious and stupendous scenery, the liberality of most of her institutions, and the hospitality of her educated classes, make the United States a truly enjoyable place of travel for the English-speaking tourists; still more warmly I would advise the newly-fledged Surgeon to make the Transatlantic trip. It is healthful, notwithstanding the sea-sickness. I may mention my belief that the horizontal posture is the only cure for this condition, as the symptoms depend on the shaking of the medulla oblongata. A ship-Surgeon has much occasion for the exercise of his benevolence and administrative ability among the emigrants, and occasionally among the cabin passengers, and all branches of his Professional knowledge may be called into requisition. To a lover of nature, the towering billows, the spouting and plunging whales, the porpoises running races with the ship, the nautilus (suggester of the sail), and the phosphorescence of the waves by night, are objects of intense interest. During the week's stay in port he can see something of America's finest scenery and enlightened institutions. There is one other topic on which I must touch—namely, the past and present prospects of Medical students. It is this day twenty years since I began the study of Medicine; and the changes have been so great that I cannot refrain from some allusion to them. Up to that period success was much more slow of attainment, and for a young man to have gained a high position most unusual; indeed, the instance of Carmichael was the only one to adduce. That illustrious man was chosen President of the Royal College of Surgeons at the age of thirty-four. Then, it was necessary to court the favour of the great to obtain public employment; now, the grand system of competitive examination has placed a competency within the reach of every student who is manly and self-reliant. The navy, the home and Indian armies, have thus become much more ably officered; and as clerkships in the Poor-law Service are now to be won by competition, I feel sure the Medical offices in that department will be soon made public prizes. And lastly, the junior offices in our great Hospitals must open to those who strive to win them by their own exertions. To the vast encouragement of study which such competition has given, I attribute the great improvement in the habits and character of our students. Twenty years ago, it being impossible for any one without much interest to get em-

ployment, students degenerated into 'chronics,' and became idle and dissipated. At the present day, I maintain the student of Medicine is characterised by Professional earnestness, and by that benevolence which even the first steps in a noble calling cannot fail to inspire. Like other youths, he shows a fondness for the various amusements which this dear old city of ours provides; and, if they be not hurtful to his body, mind, or morals, I, for one, hope they never shall be curtailed."

At the Ledwich School of Medicine the session was inaugurated, on the 1st inst., by Dr. James Little, who took for the subject of his address the impending legislative changes in the Medical Profession, the chief object of which, he said, would be to introduce modifications into the mode of conducting examinations. These changes would probably consist in a diminution of the number of examining Boards, the establishment of uniformity in the examinations, and an adaptation of these examinations to the requirements for practice. Dr. Little concluded by offering to the pupils some suggestions for the conduct of their studies, with reference both to these impending changes, and to their future career in life.

The introductory address was delivered in the City of Dublin Hospital, on the same day, by Mr. Samuel Hewitt, one of the Physicians to the Hospital. Mr. Hewitt dwelt upon the progress which Medical science had already made, and urged his hearers to labour to take an active part in the further advancement of their Profession. He pointed out the course by which they would most successfully attain that end, and having paid a just tribute to the memory of the late Dr. Geoghegan, one of the Surgeons of the Hospital, he detailed the arrangements which had been made for the ensuing session in that Institution.

GENERAL CORRESPONDENCE.

THE EARL OF DEVON AND THE POOR-LAW MEDICAL SERVICE.

Letter from Dr. Joseph Rogers.

[To the Editor of the Medical Times and Gazette.]

Sir,—Within the last few days, I have read the evidence given on March 31 by Earl Devon, Ex-Inspector, Secretary and President of the Poor-law Board, before the Royal Sanitary Commission, and I find in it such errors, that I hope you will allow me to correct them. In answer to a question by the chairman, he said "that there were 3435 district, and 685 workhouse Medical officers, making altogether 4120." As to those district Medical officers, "the average salary per annum is £68." Further on, in answer to a question by Mr. Power, he said—"The average salary, both of district and workhouse Medical officers, is £68 for the whole."

When I first saw the statement, I felt astonished that a sum so much in excess of what I had always been led to believe was the average salary should have been put forward on apparently such respectable testimony; and for a time I was at a loss to discover how this amount had been arrived at, when I remembered that the gross amount put down in the report of the Poor-law Board 1869-70 for Medical relief was £282,000; on dividing this by 4120 it brought out £68, the amount assumed by Earl Devon as having been the average payment to each officer. Here let me note that this evidence was given some three or four months before it was publicly known what was the total of gross or of Medical relief for 1869-70, as the annual report was not issued until June?

Now, against the correctness of this distribution I enter my protest, and for this reason: it is very well known to all who have paid attention to the subject, that the gross amount returned by the Clerk to the Board of Guardians as having been expended by Medical relief is constantly made up of a number of items which never reach the pockets of the Medical officers. Thus, the late Mr. Griffin pointed out that, in thirteen metropolitan unions, the difference between the Medical relief column of the Poor-law Board and the actual sum received by the Medical officers was over £4000 in one year. He also showed that (in St. Pancras) vaccination fees, the cost of wines and spirits, subscriptions to Hospitals, and the cost of scrofulous patients at Margate, were all included under this heading.

Six years after Mr. Griffin made this statement, I found that the St. Pancras return was still in excess, and, through Dr. Lush, I drew Mr. F. Peel's attention to the subject, and begged that in future reports the Medical officers' salaries should be separately set out, and gave the St. Pancras return as a case in point. He promised attention to it; and next year the amount returned from St. Pancras was reduced from £3325 3s., 1867-68, to £1313 7s., 1868-69, but the alteration was limited to this return only. I could, if I chose, cite several instances of unions where similar fallacious returns have been made, and give the figures.

Now, I do not suppose that Earl Devon knew any better, and therefore I entirely acquit him of all intention to mislead the Commission; but I am perfectly satisfied that the fallacious character of these annual returns as an index of the average salaries of the Medical officers is well known in the office, and I did feel surprised to find that Mr. Lambert was on the Commission, and present when this evidence was given, and yet did not correct it.

Whilst on this subject, I may as well inform your readers that Dr. Lush, M.P., early in the last session, moved for a return of the sum paid out of the Consolidated Fund in aid of Medical relief. You are probably aware that half the salaries come from this source. This return, if furnished, would give the correct amount. I heard at the time that the return was granted. Being very desirous of seeing it, I have applied at Hansard's repeatedly for it, but up to the present it has never been presented.

Comment on this latter transaction is unnecessary. In Ireland you can get all this information in the annual report of the Commissioners, but then they are proud of and support their Medical officers. I am, &c. Joseph Rogers.

33, Dean-street, Soho, W., Nov. 1.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, October 28.

Mr. Paget, President, in the Chair.

Dr. Sutton read particulars of two cases of Acute Scurvy, which were fatal, the one in twenty-eight, the other in fourteen days, and which had both originated in this country. Both patients were females, and in each instance vaginal hæmorrhage ushered in the disease. One, aged twenty, had tramped from the North, and been much exposed to cold and fatigue. Three weeks before admission into the London Hospital she had suffered from pain in the back and febrile symptoms, which were followed by a condition of the throat which suggested diphtheria, except that the grey-looking membrane in the tonsils, when peeled off, was not renewed. The gums then became swollen, bleeding and sloughing, the bowels much relaxed, and death took place by collapse. At the autopsy, sanguineous extravasations were found in the pleura, pericardium, kidney, stomach, and intestines, beneath the pia mater, and in the mucous membrane of the cheek. The second case was thirty-two years of age, and had lived at Bromley. Her illness had commenced fourteen days before admission, with pain in the abdomen, and loss of appetite, headache, nausea, and thirst, followed by swelling of face and sanguineous spots in the skin over the chest and extremities. At the autopsy, the gums were found sloughing; there were extravasations of blood in various parts of the body, and very characteristic scorbutic ulcers of the large intestine. Unfortunately it had been impossible to ascertain the diet upon which the patients had been living.

Mr. H. Leach was anxious to know what diet and treatment was used. In true scurvy there was no albumen in the urine.

Mr. B. Carter thought some cases depended on a want of power to take in the true pabulum of the food. In the country he had seen a boy ill of scurvy; he was well fed, but diet had no influence on the disease.

Dr. Buzzard said these were the first cases he had heard of which had proved so rapidly fatal in England. He thought there must be some other factors in them. The absence of bruises would depend on the rapidity with which death had ensued. In the first case, the albumen in the urine might depend on the vaginal discharge. In Turkey the most fatal cases were notable for having few external symptoms; but there was much ulceration of nostrils and lips or chemosis. Sometimes the gums were not affected.

Dr. Broadbent saw a case similar to Dr. Sutton's some six years ago, in a young, well-nourished woman, who had been living pretty well. There were febrile symptoms, vaginal discharge, etc., and she died in three weeks. Her diet had been fair. He had seen several acute cases, notably one in the

Fever Hospital, where the patient had been exposed to wet. Another, a butcher, also suffered as the result of exposure.

Dr. Wiltshire had seen a man with scurvy in Newcastle Infirmary, who had been earning good wages. He was very ill, with contracted hamstrings and other symptoms.

Dr. Greenhow thought there was great force in Mr. Leach's query. Scurvy was always associated with depraved diet. He knew two cases which arose entirely from errors in that respect. One had lived on meat, bread, and rice, and the other on something of the same kind. They soon recovered with proper food.

Mr. Cooper Forster thought there were certain well-known symptoms wanting. On the *Dreadnought* they used always to look for contractions and pain in the popliteal space. These they used to consider pathognomonic.

Mr. Leach said that latterly there had been a few cases without this symptom.

Mr. Paget was also doubtful whether these should be classed as cases of true scurvy. He had produced scurvy in himself in a fortnight by eating no vegetables. He then had several blotches on his limbs. He remarked on the singular anti-scorbutic powers of milk, as evidenced in the case of one who suffered intense pain after eating meat or anything of the kind. For ten years this man had lived and worked hard on arrowroot, water, and milk, yet with no signs of scurvy up to the time he came to him, when he had blotches, œdema, etc. He soon got well with proper food.

Dr. Sutton said all he knew was that one patient had been badly off for food. There was no contraction because there was no effusion. He had never seen anything like it in purpurea.

Mr. R. B. Carter described three cases of Optic Neuritis that had come under his notice at the Royal South London Opthalmic Hospital. In the first case the patient was a young woman, apparently in good health, and the right eye only was affected. Its vision was reduced to qualitative perception of light; and an active mercurial treatment was employed, under the suspicion, which could not be substantiated, that the disease was syphilitic. Speedy recovery took place, and normal central vision was restored; but in one direction there was remaining effusion, and a corresponding blind spot in the field, at the date of the paper. The second case was that of a women, 30 years of age, who became blind in a few days when in the eighth month of her eighth pregnancy. After delivery her sight began to return; and three weeks after, when she came to the Hospital, she could read No. 20 of Jaeger with the left, and No. 16 with the right. At that time there was well marked optic neuritis in both, with scattered patches of effusion in the choroid. Iron and iodide of potassium were given, and the right eye slowly improved, so that it can now read No 2, the left remaining almost stationary. Both in the optic discs and in the choroid extensive atrophic changes had taken place. The subject of the third case was a boy 8 years old, who fell from the roof of a shed to the ground. Shortly afterwards his left eye began to protrude, and became perfectly blind, while he suffered from severe pain in the head and from sleeplessness. The ophthalmoscope discovered optic neuritis. Treated by iodide of potassium and iron, with chloral hydrate at night, the pain disappeared, and the eye returned to its natural position in the orbit; but the neuritis passed into total atrophy, and not even perception of light returned, the other eye remaining unaffected. In a few observations upon these cases, the author referred to the fact, first noticed by Dr. Hughlings-Jackson, that a considerable degree of optic neuritis may be present in certain cerebral affections without impairment of vision. The cases related seemed to show that, besides a traumatic neuritis and a well-known form produced by intra-cranial tumours, there was probably some constitutional state or diathesis with which optic neuritis is associated, as iritis is associated with rheumatism and with syphilis. The discovery of such an association, if it exist, would be greatly promoted by the study of those slighter cases that may be found if looked for, but that do not come to ophthalmic Surgeons because they do not, in the first instance, affect vision. The author urged Physicians generally to lend their aid in investigating the causes of the affection, in the hope that they might thus afford a clue to the successful treatment of its more serious forms.

Dr. Hughlings-Jackson, as a Physician, was glad that an ophthalmic Surgeon had drawn attention to the important clinical fact that extremely abnormal ophthalmoscopical appearances may exist when the patient can read the smallest type (*e.g.*, brilliant), and when he considers his sight to be quite good. It is most desirable that ophthalmoscopical examinations should be made in cases of disease of the nervous system, whether the patient complains of his sight or not. At all events, the ophthalmoscope should be used when there is severe pain in the head, perhaps urgent vomiting as well, and especially if there be also epileptiform seizures. The cases Mr. Carter related were, Dr. Hughlings-Jackson thought, of great interest, and especially those of uniocular optic neuritis. In Physicians' practice optic neuritis is almost invariably double. Dr. Hughlings-Jackson thought it a fact of significance that double optic neuritis may occur from disease of but *one* cerebral hemisphere. This occurrence is of equal, but not of similar, significance to that of the occurrence of total speechlessness from disease in but *one* cerebral hemisphere. With regard to Mr. Carter's remarks on the necessity of Medical Practitioners joining ophthalmic Surgeons in the investigation of the various pathological conditions of the optic nerves in cerebral and other diseases, Dr. Hughlings-Jackson suggested that a most fruitful field of work would be found in the observation of cases of double optic neuritis complicated with certain epileptiform seizures—those beginning unilaterally. In these cases we can roughly localise the disease, which produces both the amaurosis and the convulsions. In most of these cases there is evidence of syphilis. Referring to a drawing of the fundus of the eye of a patient the subject of optic neuritis, Dr. Hughlings-Jackson said the case of this patient was the only one he could call to mind of double optic neuritis, complicated with convulsion beginning in *the foot;* he had often seen double optic neuritis, with convulsions beginning *in the hand.*

Dr. Liebreich having been invited to address the meeting, did so in French. He had nothing important to communicate with regard to optic neuritis; but he exhibited by means of his ophthalmoscope the fundus of a healthy eye. This, he said, was of the utmost importance, for different eyes varied much: the normal was constantly being taken for the abnormal, there being so many varieties of form and colour compatible with health. Especially this was the case with regard to the optic papilla and fundus; many details had to be mastered, as the colour varies with complexion. The venous pulse was sometimes natural, sometimes induced by pressure; but an arterial pulse was of grave import, as indicating great intraocular tension. It might be produced, however, by heavy pressure on both eyes till fire seemed darting from them.

Mr. Callender could not let Dr. Hughlings-Jackson's ideas with regard to the brain pass unnoticed. There was a great want of accurate knowledge of brain development. He thought the optic nerves and their attachments were cerebral outgrowths, like the olfactory. They had no relations with the hemispheres or thalami.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 5.

Dr. Graily Hewitt, President, in the Chair.

Dr. Protheroe Smith exhibited a specimen of Carcinoma of the Uterus, in which the disease was limited to the fundus, the cervix being unimplicated, and the uterus being quite movable.

Dr. Phillips referred to the rarity of this form of cancer, and regretted that he was unable to exhibit a specimen he had hoped to have shown at this meeting, in which the cervix was unimplicated, although there was malignant disease in both ovaries, and secondary deposits in the lungs and bronchial glands, his patient having died from pleuritic effusion. The diagnosis of such cases during life was attended with great difficulty. In his case there was very little vaginal discharge, either sanguineous or leucorrhœal. The uterus was quite movable, and the nature of the disease was not suspected. Dr. Smith's specimen reminded him more of strumous than of cancerous disease of the uterus, although the fact of the Fallopian tubes being unimplicated was rather against this view.

Dr. Routh thought that it would be very desirable if, in recording this case in the *Transactions*, Dr. Smith would give the exact symptoms in detail. It was obvious that, if cancer originating at the fundus was characterised by symptoms as specific as those of fundal endo-metritis, the diagnosis would be much facilitated. Were the glands in the neighbourhood free? Was it the case that in cancer of the fundus there was no extension to the surrounding parts? If so, the question of gastrotomy might be worth entertaining, so as to remove the entire organs excepting the cervix—the diseased ovaries being included—thus giving a patient the best chance of a non-recurrence.

Dr. Martin, of Melbourne, read a paper "On a Case of Hard Fibrous Tumour of the Ovary, Removed by Ovariotomy—Recovery, etc." After a description of the history of the patient, the operation, and the progress of the cure, Dr. Martin remarked that the interest of the case arose from the great rarity of fibrous tumours of the ovary, as there are scarcely any reliable cases of this kind on record. With reference to the diagnosis, Dr. Martin was of opinion that the use of the sound and the condition of the menstrual function were likely to give us most help.

Mr. Spencer Wells said that it was impossible to form an opinion as to the nature of the tumour from the model exhibited; but looking to the extreme rarity of fibroid tumours of the ovary, and the extreme frequency of fibroid outgrowths from the uterus, and the fact that many supposed fibroid tumours of the ovary had turned out on examination to be really uterine, he believed the tumour exhibited by Dr. Martin to be uterine, and not ovarian; and he explained the presence of the right ovary, and the absence of the left, by the probable adhesion of the left ovary to the surface of the tumour.

The President agreed with Mr. Wells in considering the so-called fibroid tumour of the ovary to be really of uterine origin. He congratulated the Society on the fact that in one evening it had had valuable contributions on the subject of ovarian disease from no less than three Fellows of the Society residing abroad, and that these contributions had been the means of eliciting discussion of important questions.

Dr. V. Saboia, of Rio Janeiro, then read a paper on "A Case of Ovarian Disease."

Dr. Hodder, of Toronto, read a paper "On a Case of Ovariotomy." This was a multilocular cyst of the ovary, and the interest of the case arose from the fact of the pedicle, which had been secured by Spencer Wells' clamp, disappearing into the abdomen on the sixth day after the operation, and causing a fatal result.

Mr. Spencer Wells did not think this case bore at all against the use of the clamp, but it did impress the important lesson not to remove the clamp too early. In this case it was removed on the fourth day, when the adhesions between the peritoneal coat and the abdominal wall were too recent to be firm. After eight or ten days, when a clamp generally falls off, or is held by mere shreds of tissue, the adhesions have become sufficiently firm to prevent the danger of the pedicle slipping inwards.

Dr. Copeman, of Norwich, read a paper "On Tumours of the Pelvis Obstructing Delivery." After referring to the extreme danger of this form of complicated labour, the author said that it was not so rare as might be thought, and referred to a number of cases that had been collected by Mr. Merriman and others. He then proceeded to relate the particulars of two cases that had come under his own observation. In the first case the tumour occupied the posterior portion of the pelvis. Delivery was effected by turning. The mother died on the third day. In the second case the tumour, which was hard, firm, and immovable, was attached by a broad base to the left side of the pelvis. This case was also delivered by turning, but with extreme difficulty, on account of the size of the tumour. The patient made a good recovery. With regard to treatment in cases of this kind, Mr. Copeman remarked that he would recommend puncture of the tumour, but only when it could be ascertained that the contents were semi-fluid, or soft enough to be partially evacuated. In other cases he considered turning to be the preferable practice.

The President said that all would admire the courage and perseverance which brought about so successful a result in the second case described. He remarked that Dr. Copeman had, probably unintentionally, omitted mention of a method of treatment of such cases sometimes applicable—viz., the pushing of the obstructing tumour out of the pelvis, and thus allowing of the descent of the head.

Dr. Playfair said that Dr. Copeman had not alluded to what was the chief cause of danger in labour complicated by tumour. In 1867 he (Dr. Playfair) had read a paper before the Society "On the Treatment of Labour Complicated by Ovarian Tumour," in which he had collected the details of all the cases of this complication he could meet with, amounting to 57 in all. Of these 13 had been left to nature—that is, the tumour had been sufficiently small to admit of the child being squeezed past it. Of these 13 cases, close upon one half had proved fatal to the mother. In favourable contrast were the 9 cases in which the tumour had been punctured, and in which, therefore, the tumour had collapsed, and had not been subjected to pressure, since every one of them had terminated favourably. The explanation of the great mortality in the former cases was no doubt the contusion and pressure to which the tumours had been subjected, which set up a low form of diffuse peritonitis. Possibly this may have been the cause of death in the first of Dr. Copeman's cases. The inference from these facts seems undoubtedly to be that by far the best way of treating such cases is to puncture the tumours when they have fluid contents, and this even if there seems room for the child to pass; and even in cases when the tumour seems solid, an exploratory puncture should be made before anything more formidable is done, as tumours apparently solid have often been found to contain fluid.

Dr. Protheroe Smith said that the opinion expressed by Dr. Playfair was of great practical value, as it was frequently found that tumours obstructing delivery were cystic, or subfuscial deposits of serum, blood, or pus; and, in such cases, he recommends the puncture of the tumour by means of his needle-trocar. In a case lately operated on in the Hospital for Women, he had evacuated by means of it almost an ounce of thick pus from a tumour the size of an orange growing from the back wall of the vagina in a patient in the sixth month of utero-gestation. The operation was only like the prick of a pin, and required no after-treatment.

Dr. Barnes said that each case must be dealt with according to its individual features. We had to consider the size, position, structure, attachments, firmness of the tumours, and its relations to the child. If the tumour is movable, and can be pushed out of the way, by all means do it; but in many cases this is impossible. We must then ascertain if it contains fluid, and, if so, lessen its bulk; or possibly the tumour may admit of being removed altogether. To obviate the great danger to which Dr. Playfair had referred—that of crushing the tumour by the passage of the child—it was necessary, when you could not reduce the tumour, to reduce the bulk of the child; and in extreme cases we might be driven as a last resource to the Cæsarian section. He had recently seen a case where a woman died of septicæmia, the result of the bruising of the tumour against the walls of the pelvis.

Dr. Madge said that he had attended a case where a large fibrous tumour had prevented the descent of the child's head. It was first punctured, and then, with great difficulty, pushed above the brim. The patient afterwards died of peritonitis, the seat of puncture showing signs of having been the starting-point of the disease. He mentioned this as an argument against the too free employment of the operation in question.

Mr. Lowe, of Burton-on-Trent, read a paper on "A Case of Hæmorrhage from Retained Placenta after Abortion." This was a case of profuse hæmorrhage from a portion of placenta retained for several weeks after abortion. It was successfully removed, but the patient sunk with symptoms indicative of septicæmia. The author dwelt at some length on the extreme importance of procuring the extrusion of all the secundines in cases of abortion, and pointed out the danger likely to arise from retention.

The President thought that in cases of abortion little doubt was now entertained as to the expediency of removing the secundines as soon as possible, with the view of preventing various disasters. As a matter of fact, he had found retention of the secundines usually associated in such cases with a marked flexion of the uterus, which condition both caused the abortion, and interfered with its completion.

Dr. Wynn Williams said that in cases in which a portion of the membranes were retained, the injection of the uterine cavity with some antiseptic fluid, such as Condy's fluid, or a weak solution of iodine (the latter of which he himself preferred), was strongly to be recommended.

Dr. Playfair said that he could not agree with Mr. Lowe's statement that retention of a portion of the secundines was most likely to take place in the first two months. Indeed, he believed that this is directly opposed to the fact, and that in the first two months the ovum was most likely to be expelled entire, and that retention was most likely to occur in the third and fourth months, when the adhesions of the chorion were most intimate and extensive.

MEDICAL SOCIETY OF LONDON.

Monday, October 17.

John Gay, Esq., President, in the Chair.

The President opened the ninety-eighth session with an introductory address on the Limitations of Surgical Art. The speaker was listened to with much attention, and at the close of the address a vote of thanks, proposed by Mr.

De Méric, and seconded by Dr. Richardson, was unanimously accorded.

Dr. Andrew Clark then read the paper of the evening, "On Local Inflammation in Certain Defined Conditions as Causes of Pulmonary Phthisis." The author said that hitherto his illustrations had been drawn from cases of pneumonia and pleurisy, and as yet he had found no exception to the laws he had set forth as regulating these relations to phthisis. In the present paper he proposed to take his examples from chronic bronchitis, which, though a less common was an equally efficient agent in bringing about phthisical destruction of the lung. Case 1, a widow, 48 years of age, admitted into the London Hospital for chronic bronchitis, in June, 1866. She has had winter cough for twelve years back. Percussion sounds good over both lungs; with the stethoscope sibilant and sonorous râles are heard everywhere, and at bases there is coarse, moist crepitation. Pulse 80; no fever or night sweats. She was treated with alkalies, and afterwards with acids, iron, and creosote inhalations, and was doing well until she was placed on a more liberal diet, with beer and wine. It being obvious that the change did harm, the diet was reduced; this displeased her, and she left the Hospital. In three months she was again admitted under another Physician; she got worse, became feverish, and in February, 1867, dulness on percussion in the supra-spinous fossæ was noted. In March lung tissue was found in the expectoration, she got diarrhœa, and died in the May following. The post-mortem examination revealed extensive disease in the left lung; the bronchi were thickened and dilated, and the intervening lung tissue was converted into a dense fibrous mass, a few small cavities were seen, and also some gray tubercles in both apices. Case 2.—J. S., aged 65, a widow, had winter cough for ten years. On admission, had much cough, and muco-purulent expectoration; no dulness on percussion; sibilant râles over both lungs; pulse 64; temperature 98°. This patient gradually declined, owing to a nervous shock; she got hæmoptysis and diarrhœa, and signs of consolidation about right lung; she died, but no post-mortem was obtained. Case 3.—J. W., aged 53, a dock labourer, had bronchitis over twenty years. Four years ago his strength failed; he got profuse purulent expectoration. He became feverish; bronchial breathings and crepitations were heard over his chest, and right lung became consolidated about two years later. The sputa became lumpy, and contained areolæ of elastic tissue. In December, 1869, the urine was found to be albuminous, and in the following April he died. The post-mortem showed dilated tubes, gray tubercles, and small cavities in the lungs. Case 4.—Mrs. B., aged 61, lives in Kent; for many years subject to bronchitis. In 1864, general health failed, she became feverish, and bands of elastic tissue were found in the sputa. Crepitation heard in middle third of right lung. The progress of the disease here is slow; pulse 80; temperature 98·2° at 3 p.m. The patient is still under observation. In concluding, Dr. Clark said that the chief causes of phthisical complication, in cases of chronic bronchitis, appear to be repeated colds, over-feeding, and the abuse of stimulants. Loss of strength, feverishness afterwards, subsiding and coarse moist crepitations, were signs of the phthisical condition. When the bronchi ulcerate, fibres of lung tissue are found in the sputa; fibroid or tubercular pneumonic changes in the lung follow, but the progress of the disease is usually slow. By meeting feverish complications with rest, milk diet, and salines, and by the use of inhalations of iodine, creosote, or carbolic acid, and appropriate treatment of tonics and diet, the progress of the disease may be greatly retarded, and life indefinitely prolonged.

Dr. Symes Thompson agreed with Dr. Clark that tubercle was not often the primary mischief; these cases showed the value of early treatment to avert the phthisical complications.

Dr. Thorowgood said that, in going over the patient records of the Victoria-park Hospital, he had noticed a large number of the cases of phthisis to have had their origin in a catarrh or bronchitis at some more or less distant date antecedently. This bronchitis was probably inefficiently treated, while, doubtless, alcoholic drinks were freely taken by the patient, till, the lung breaking down, he is obliged to become an in-patient of the Hospital.

Dr. Hare said that we must not rush too hastily to the conclusion that the disease was of catarrhal origin: Hospital patients usually referred all their ailments to cold caught. He could not agree with Dr. Clark that a pneumonic deposit unabsorbed at the end of three months would never go; he had observed a case of pneumonia where the consolidation persisted for two years, and then went quite away. He insisted much on the value of counter-irritation as a curative measure.

Dr. Semple complimented Dr. Clark on his accurate reports; he believed such cases to be very rare, and commonly the sequence of events was the very reverse of that stated. Early tubercle causes the bronchitis; not the bronchitis the tubercle.

Mr. Streeter made some remarks on the importance of perfect ventilation as a preservative against phthisis.

Mr. Peter Marshall asked if Dr. Clark included the cases of acute phthisis in young persons as sequelæ of bronchitis.

Dr. Wiltshire inquired as to whether there might have been any heart disease leading to mechanical impediment of the circulation, and hæmoptysis, which might have caused destruction of lung tissue.

Dr. Clark, in reply, said that he must admit Dr. Hare's case of pneumonia to be an exception to the rule he had propounded; he quite agreed with Dr. Hare as to the value of counter-irritation. He did not include cases of acute phthisis in young children as sequelæ of bronchitis. He had no reason to think that there was any mechanical obstruction of circulation likely to cause such hæmorrhagic destruction of lung as he had himself described in his lectures before the College of Physicians in 1866.

OBITUARY.

JAMES CHARLES SKINNER, M.R.C.S.

The untimely death from typhus of Mr. Skinner, at the outset of what promised to be an useful and honourable career, furnishes another sad example of the dangers incurred by Medical men in the exercise of their Profession. He may be said to have fallen a victim to his zeal for knowledge, and to his conscientious devotion to the care of patients under his charge. He was one of the sons of Mr. Skinner, a farmer, of Tunstall, Norfolk, and came up to London in 1867, entering as a student of St. Mary's Hospital. Here he soon became known as one of the most earnest and indefatigable workers in the school—a character which he sustained in every department throughout the entire period of his attendance on lectures and Hospital practice; while his kindly nature and unassuming goodness gained for him the respect and regard of all who knew him. After passing his examination at the College of Surgeons, he continued to work in the wards, and at the beginning of October accepted a temporary appointment as Assistant Resident Medical Officer to the Fever Hospital, carrying into his new duties the same assiduity he had always displayed, and giving, perhaps, more time to his patients and less to necessary recreation than was desirable, he contracted typhus. On Wednesday evening, October 12, he attended the meeting of St. Mary's Medical Society, apparently in good health. Next day the initial symptoms of fever set in; the attack did not appear to be of more than average severity, and no very alarming indications presented themselves till Saturday, the 22nd, when he became violently delirious. On the evening of the 23rd, however, the delirium was replaced by profound sleep, which seemed to promise a favourable crisis; but on the 24th diarrhœa came on, accompanied by tympanitis, and though apparently arrested, recurred several times, and eventually he sunk on the morning of the 29th. His death has cast a gloom over the school and Hospital of St. Mary's, where he was universally respected and beloved.

MEDICAL NEWS.

Royal College of Physicians of London.—At the ordinary quarterly meeting, on the 27th ult., the following gentlemen, having passed the required examinations, were admitted as members:—

Brunton, Thos. Lauder, M.D. Edin., 23, Davies-street, Berkeley-square, W.
Keene, James, London, W.
King, Robert, M.B. Cantab., the Middlesex Hospital.
Murray, John, M.D. Aberd., 40, Bryanston-street, W.
Nicholls, John Frederic, M.D. St. And., Devizes.
Williams, David William, M.D. St. And., Lynn.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their first Professional examinations during the October sittings of the Examiners:—

Anderson, Robert M. G., Perthshire
Griffiths, William Handsel, Dublin.
Hill, Alfred, Yorkshire.
Kearney, Thomas, Dunmanway.

M'Nab, Finlay, Perthshire.
Wallace, Samuel Lane, Londonderry.
Wilson, John, Essex.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edin., and L.R.C.S. Edin. :—

Archer, Thomas, Nassau, W.I.
Brown, Robert Ross, Parramatta, Australia.
Brown, William, Dublin.
Carruthers, Thomas, Lancashire.
Gibson, Charles Henry, Dublin.
Image, Francis Edward, Bury St. Edmunds.
Jones, Isaac Stephenson, county Cork.
Kay, Thomas Valentine, Chesterfield.
Mackenzie, John, Morayshire.
Mitchell, Samuel, county Dublin.
Monty, Samuel Ange Rostange, Mauritius.
Pereira, Martin Henry Gomes, Demerara.
Settle, John, Ulverston.
Wannan, William Alexander, Arbroath.

Royal College of Surgeons.—The following gentlemen passed their final examinations, and were admitted Licentiates of the College during the October sittings of the Examiners :—

Hanson, William, Felstead, Essex.
Harvey, Henry, Gravesend.
Leigh, Herbert Sidney, Ashton-under-Lyne.
Lewis, William, Paisley.
M'Dowall, Thomas William, Edinburgh.
Madden, Henry James, county Mayo.
Mancor, Alexander Faithfull, Dublin.
Pye, Joseph Patrick, county Galway.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, October 27, 1870 :—

James, Cyrus, Highworth, Wilts.
Salt, George, Dunmow, Essex.
Weatherhead, John Frazer, City Prison, Holloway.

The following gentlemen also on the same day passed their First Professional Examination :—

Anderton, John Heyes, Middlesex Hospital.
Stuart, Henry Ward, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ROBERTS, JOHN L., M.B. and C.M., Physician's Assistant in the Royal Infirmary, Manchester.

WRIGHT, CHARLES J., M.R.C.S. Eng., Lecturer on Physiology, Leeds School of Medicine, *vice* William Hall, M.R.C.S. Eng., resigned.

BIRTHS.

DIVER.—On October 28, at Northcotes, Caterham Valley, the wife of Ebenezer Diver, M.D., of a daughter.

GIBBON.—On October 31, at 39, Oxford-terrace, Hyde-park, the wife of Dr. Gibbon, of a daughter.

HARMER.—On November 1, at Hawkhurst, the wife of Dr. Milsted Harmer, M.R.C.P.E., of a son.

JOHNSON.—On October 18, at Daventry, the wife of Cuthbert N. H. Johnson, L.R.C.P., M.R.C.S., of a son.

JORDISON.—On October 27, at Hornchurch, Essex, the wife of Robert Lloyd Jordison, M.R.C.S.E., of a daughter.

OLIVER.—On October 30, at 59, Parkfield-road, Prince's-park, Liverpool, the wife of John B. Oliver, Surgeon, of a daughter.

PHILPS.—On October 27, at Lemon House, Queen's-road, Peckham, the wife of Philip George Philps, Surgeon, of a son.

MARRIAGES.

CUFFE—MAYHEW.—On October 27, at St. John's Church, Hampstead, A. Gordon Cuffe, M.D., only surviving son of the late George Cuffe, of Fullerswood Park, Jamaica, to Alice Louise, third daughter of Frederick Mayhew, Esq., of 67, Adelaide-road, Haverstock-hill.

FERGUSON—FERGUSON.—On October 26, at Holy Trinity Church, Walton Breck, Liverpool, T. J. Ferguson, Esq., of Calicut, to Maria, eldest daughter of Jas. C. Ferguson, M.D., Liverpool.

HUGHES—MORSON.—On October 27, at St. John's Church, Croydon, William Hughes, of Wittyham, to Nina Annie Sophia Harriette, youngest daughter of the late James Henry Morson, M.D.

MANNING—FRANKLIN.—On October 27, at St. Paul's Church, Camden-square, London, Joseph Manning, M.R.C.S.E., New Shoreham, Sussex, to Edith Sophia, second daughter of Edmund Franklin, Esq., Northampton.

SNELL—TURNER.—On October 27, at St. Luke's, Lower Norwood, after banns, Charles Hill Snell, Esq., of Callington, Cornwall, to Fanny, eldest surviving daughter of John Turner, F.R.C.S., of High Wycombe, Bucks.

WILKINS—MULHOLLAND.—On October 18, at St. George's Church, Montreal, Canada, George Wilkins, M.D., late Surgeon s.s. *Austrian*, to Annie, eldest daughter of Henry Mulholland, Esq., Montreal.

DEATHS.

ANDERSON, Dr. THOMAS, Surgeon Bengal Army, and Director of the Royal Botanic Gardens, Calcutta, at his father's house, 6, Royal-terrace, Edinburgh, on October 26.

BLADES, MARY ANN, the wife of C. Corbett Blades, M.D., at 177, Kennington-park-road, on November 1, in her 29th year.

CAMPBELL, JOHN, M.D., formerly Surgeon 93rd Highlanders, at Park House, Portobello, on October 26.

CROWFOOT, ELLEN, the beloved wife of William Edward Crowfoot, at Beccles, on October 31, aged 64.

DONNE, Dr., of 1, St. James's-terrace, Regent's-park, after a few h. 's illness, on October 24, aged 34.

EAMES, W. L., Assistant-Surgeon, M.D., Generals 16th Horse Brigade Royal Artillery, only son of the late William Bowles Eames, M.D., Surgeon, Castle Martyn, County Cork, Ireland, of fever, at Jubbulpore, on September 15.

HARRIS, REBECCA VOYSEY, widow of the late Hetman Charles Harris, F.R.C.S.E., of 240, City-road, E.C., at Worthing, on October 29, aged 5[illegible].

KENDRICK, SARAH GIFFARD, relict of John Kendrick, M.R.C.S., at 14, Eaton-terrace, St. John's-wood, on October 28.

MACNAMARA, JAMES, Surgeon, at Mansfield, Woodhouse, Notts, on October 26, aged 33.

MOLECEY, OCTAVIUS TWIGGE, Surgeon on board Messrs. Green's ship *Agamemnon*, at sea, near Melbourne, of aneurism of the aorta, on August 17, aged 25.

ROYSTON, JOHN, M.R.C.S., L.S.A., at Chesterfield, late of Whitwell, Derbyshire, of progressive muscular atrophy, on October 30.

STONE, CAROLINE ELISABETH, widow of the late Thomas Stone, M.D., and daughter of the late Rev. John Wood Duppa, rector of Puddleston, on October 30, at Bridgnorth, aged 82.

WALKER, CHARLES, Surgeon, of Wirksworth, at Bridlington Quay, on October 27, aged 46.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRISTOL ROYAL INFIRMARY.—Assistant House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 12.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Dental Surgeon; must be a Licentiate in Dental Surgery of the Royal College of Surgeons of England. Applications and testimonials to the Honorary Secretary on or before November 8.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon; must be M.R.C.S. Lond., Edin., or Dublin. Applications and testimonials to the Secretary, at Derby, on or before November 5.

DUDSLEY UNION.—Medical Officer for the Third District. Candidates must be duly qualified. Applications and testimonials to Mr. G. Weuden on or before the 23rd inst. Election the next day.

EASTERN DISPENSARY, LEMAN-STREET, WHITECHAPEL, E.—Resident Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 7.

GENERAL HOSPITAL, BIRMINGHAM.—Physician; must be a graduate in Medicine of a University, and must also be either a Fellow or Member of the Royal College of Physicians, London. Applications and testimonials to the Medical Committee on or before the 17th inst. Election on the 25th inst.

GENERAL HOSPITAL, BIRMINGHAM.—Surgeon; must be F. or M.R.C.S.E. Applications and testimonials to the Medical Committee on or before the 17th inst. Election on the 25th.

GENERAL HOSPITAL, BIRMINGHAM.—Resident Registrar and Pathologist; must have both Medical and Surgical qualifications. Applications and testimonials to the House-Governor and Secretary on or before the 24th inst.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, BRIDGE-STREET, MANCHESTER.—The office of Assistant Medical Officer will be vacant at Christmas. Applications and testimonial to Dr. Borchardt on or before November 20.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistant; must have a Medical qualification. Applications and testimonials to the Honorary Secretary on or before November 5. Personal attendance will be required on the following Monday, at 4 o'clock p.m.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—Lectureship on Comparative Anatomy and Zoology. Applications and testimonials to R. Harrison, Esq., Registrar, on or before November 5.

LIVERPOOL SOUTHERN HOSPITAL.—Senior House-Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to James Houghton, Esq., Treasurer, on or before November 10.

MIDDLESEX HOSPITAL, BERNERS-STREET, W.—Assistant-Physician. Applications and testimonials to the Weekly Board on or before November 15.

MORPETH DISPENSARY.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

NORTH WITCHFORD UNION.—Medical Officer for the East Division of the Parish of Chatteris. Candidates for the appointment must be duly qualified and registered. Applications and testimonials to T. Tusting, Esq., Clerk to Board, on or before November 15. Election the next day.

PARISH OF PADDINGTON.—Medical Officer for the Eastern District of this parish. Candidates must be duly qualified and registered. Applications and testimonials to H. Aveling, Esq., Clerk to the Guardians, Board-room, Paddington Workhouse, Harrow-road, W., on or before November 9.

STOCKPORT INFIRMARY.—House-Surgeon's Assistant. Applications and testimonials to S. W. Wilkinson, Esq., on or before November 10.

WESTERN GENERAL DISPENSARY, 262 AND 264, MARYLEBONE-ROAD, N.W.—Physician; Surgeon Accoucheur; and Surgeon in Ordinary. Candidates must be Fellows or Members of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin. Applications and testimonials to the Secretary on or before November 7.

WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY.—Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 17.

WHITECHAPEL UNION.—Resident Workhouse Medical Officer. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Vallance, Union Offices, Charles-street, Whitechapel, on or before November 6.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Mitford and Launditch Union.—Mr. John T. Tallent has resigned the Hardingham District; area 2390; population 527; salary £10 per annum.

Westhampnett Union.—Mr. R. Elliott has resigned the Rumboldswhyke District; area 11,452; population 2908; salary £75 per annum.

APPOINTMENTS.

Forehoe Incorporation.—Thos. L. Lack, M.R.C.S. Eng., L.S.A., to the Second District.

Kingsbridge Union.—John M. Puddicombe, M.R.C.S. Eng., L.S.A., to the Second District.

Madeley Union.—Charles B. H. Soame, M.R.C.S. Eng., L.S.A., to the Dawley District.

Uckfield Union.—Henry John Hall, L.R.C.P. Lond., M.R.C.S. Eng., to the Second District.

Wigton Union.—Wm. Brown, L.R.C.S. Edin., to the Caldbeck District.

Wolstanton and Burslem Union.—Joshua P. Edwards, L.F.P. and S. Glas., L.S.A. Lond., to the First District and the Workhouse.

RADCLIFFE INFIRMARY, OXFORD.—By an alteration of the rules at the last quarterly Court of governors, the House-Surgeon, apothecary, and other officers, are in future to be appointed by the Committee of Management instead of by the Court of governors, from two names selected by the committee.

THE LATE MR. FEARN.—At the anniversary meeting of the Derbyshire General Infirmary, it was moved by Dr. Ogle, seconded by Dr. Taylor, and resolved unanimously—"That this meeting desires to record its deep sense of the loss which the Institution has sustained in the death of Mr. Fearn, the Senior Surgeon, and to express its heartfelt sympathy with his surviving widow."

MR. WANKLYN, whose election into the Bavarian Academy we recorded last year, is one of the candidates for the chair of Chemistry in St. Bartholomew's Hospital. Mr. Wanklyn is known to chemists for his synthesis of the fatty acids by means of carbonic acid and certain curious compounds of the alkali metals discovered by himself; moreover, by the action of carbonic oxide on sodium ethyl he prepared propione. In conjunction with Dr. Erlenmeyer, he investigated the action of hydriodic acid on mannite, and thereby elucidated the constitution of sugar. Conjointly with Dr. Playfair, he brought out a method of taking vapour densities at very low temperatures. The isomerism of the alcohols has likewise engaged his attention. The ammonia method of water analysis, with which many of our readers are familiar, was the joint production of himself and Chapman and Smith. It is now in general use.

SMALL-POX IN BRUSSELS.—Brussels, which has during the prevalence of the Paris epidemic kept itself so free from small-pox by diligent vaccination, seems now in great danger of suffering severely from it, as the cases are rapidly increasing, which is supposed to be due to the immigration of so many families from Paris.

THE CENTRAL VETERINARY MEDICAL SOCIETY.—Mr. F. J. Mavor read a short, but very interesting, paper on "Thermometrical Observations on the Horse," instituted to ascertain the effects of certain medicinal agents upon the temperature of the body. The conclusions arrived at by Mr. Mavor in his experiments are as follow:—The normal temperature of the horse, as taken at the rectum by one of Mr. Hawksley's Fahrenheit's thermometers, is from 99° to 100°. A rise of temperature, more or less, is the product of every disease. All medicines, whether given subcutaneously or by the stomach, produce a corresponding elevation of temperature. Although a very high temperature may exist as the result of disease, a dose of medicine will produce a higher elevation. Lastly, the same effects are observable in health as well as disease. The statements were supported by tabulated records of observations made with atropine administered subcutaneously to a gray mare suffering from abscess in the pectoral muscles, in which, upon every occasion during the existence of the injury, the exhibition of the drug in doses of a quarter of a grain gave rise to an increase of temperature; and when convalescence had been established, as evidenced by a decline of temperature to the normal standard, the exhibition of the same dose of the drug produced a rise of temperature, which did not subside until the third day.

SURGICAL AID SOCIETY.—From the annual report of this Society, it appears that the cases relieved during the past year included 1270 sufferers from spinal curvature, varicose veins, loss or disease of legs, and other infirmities, being nearly twice the number of cases assisted in any previous year. Since its commencement the Society has relieved 4041 individuals, at ages varying from 5 weeks to 88 years, by the supply of 4385 appliances, including elastic stockings, leather knee-caps, &c., high boots and leg instruments, spinal instruments, &c., &c. The income last year was £1342 6s. 2d.; the expenditure 1149*l.* 5s. 3d.

MIDDLESEX HOSPITAL.—This Hospital, so well situated and so useful to the public, has a gradually declining income. At a special Board held the other day, a resolution was passed to the effect that it was expedient to sell out stock to the amount of no less than £6000. Constant appeals to the inhabitants of wealthy districts near the Hospital had met with little response. The Hospital contains 310 beds, and of these thirty-two are devoted to cases of cancer. The lowest annual expenditure compatible with efficiency was £15,000. The annual subscriptions did not exceed £2300. Unless increased annual subscriptions come in, the weekly Board have no alternative except to close a considerable portion of the Hospital. This is one of the effects of the multiplication of special "Hospitals."

FIVE tons of putrid pork were, on Friday week, seized on the premises of Honoria Lynch, a dealer in provisions, in Rosemary-lane, Whitechapel. Mr. Liddle, the Medical Officer of Health, and Mr. Bartram, the Sanitary Inspector, gave evidence which proved the bacon to be absolutely putrid, and unfitted for the consumption of any human being. The pork was ordered to be destroyed.

SANITARY REFORM.—Sir C. B. Adderley, speaking at the Mayor's dinner, at Longton, Staffordshire, last week, said, as Chairman of the Royal Sanitary Commission, that he ventured to predict that the report of that Commission would form a feature at the opening of Parliament next session. The recommendations of the Commission, on which legislation would be founded, were—that the system of local self-government should be completed; that every place should entirely manage its own affairs; that existing Acts should be consolidated; and that Ministers of State should have only to inspect whether action had been taken by the local authorities, and, if not, to put them into action.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN OCTOBER, 1870.—The following are the returns of the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	16·97	0·049	0·091	0·004	13·8	3·2
West Middlesex	16·40	0·045	0·132	0·001	13·3	3·2
Southwark & Vauxhall	16·60	0·057	0·075	0·002	13·6	3·2
Chelsea	16·93	0·064	0·091	0·004	13·9	3·3
Lambeth	18·90	0·057	0·091	0·002	13·9	3·4
Other Companies.						
Kent	26·97	0·006	0·182	0·000	20·0	5·5
New River	17·10	0·022	0·110	0·000	13·6	3·0
East London	16·03	0·014	0·099	0·002	12·7	3·3

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—viz., in the case of the Grand Junction water.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 106,316,302 gallons; and the number of houses supplied was 481,620. This is at the rate of 35·7 gals. per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 29·3 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

H. LETHEBY, M.B.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A. B.—Dr. John Rose Cormack has lived many years in France, and is now with part of his family in Paris, assisting at one of the ambulances, and prepared to abide the siege. Dr. William McCormac, of Belfast, was a member of the Anglo-American Ambulance at Sedan, and has returned home. Dr. Gordon is in Paris, and Dr. Wyatt.

Pupil.—In August, 1815.

Perplexed will find an able article on the subject in Copland's "Dictionary of Practical Medicine."

Anxious should consult some respectable Surgeon in his own neighbourhood. The case is one of an ordinary character, and quite amenable to treatment. Advertisers should be scrupulously avoided.

A Second Year's Student.—It is advisable for him to attend the "extra" lectures.

Patiens, by the payment of 10s. a week, will be received as a "paying patient."

Pater.—The expenses of education, diplomas, etc., would be under £150. The cost of living would depend on the habits of the student, and his style of life.

Cooper v. *Wakley.*—Various correspondents, who have addressed us with respect to this remarkable trial, are thanked. The articles are written from personal recollection; the remarks and comments are those of the writer, and he is alone responsible for them. It may be stated that many of the circumstances alluded to in the communications we have received will be discussed in future articles. We should be obliged by the transmission of the MS. alluded to by "The Printer."

Loss of Hair.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to Dr. Crisp's inquiries as to the entire loss of hair and its remedy, I beg to say that two years ago I exhibited at a meeting of the Medical Society of London a young man, who had lost every hair on his body, but had entirely recovered under a long course of arsenic, and no other remedy except daily cold ablution of the scalp. This is one case out of a large number, of total or partial baldness, which have yielded to the same remedy. Indeed, I have been familiar with its efficacy for more than twenty years, and have introduced the subject in the last six or seven editions of my work on the skin. There is no remedy for any disease which acts with more certainty; but it requires nice management, and sometimes long perseverance. I am, &c.

23, Dorset-square, November 1. THOMAS HUNT.

Colonial.—The diploma would be recognised.

Nankens would not be qualified; he must possess the double qualification.

Questor.—The appointment is in the gift of the Secretary of State for the Home Department.

Lector.—It was Richard Grainger who lectured at the time. His gifted brother Edward had, at the period mentioned, been dead for many years.

A Surgeon in General Practice.—Such discussions are unseemly, and seldom are of any service either to those engaged in the dispute or to the public. Respectable chemists, who keep the best drugs, and who dispense with the utmost care, are entitled to charge accordingly. We have no fault to find with the better class of chemists on the score of charges; it is far more important to have a pure drug than to be even somewhat "over-charged," if such be the case.

The O. W. Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to thank you for so kindly inserting my appeal on behalf of the English Physician near Paris. I am happy to tell you that the following subscriptions have already been received or promised, and that means have been found to communicate with, or convey help, to Dr. and Mrs. O. W. I am, &c. JOSEPH S. LAVIES.

	£	s.	d.		£	s.	d.
R. M. Benev. Fund ...	10	0	0	Dr. Sibson	1	1	0
Dudley Male, Esq. ..	10	10	0	Dr. Semple...	1	1	0
Sir Thos. Watson, Bart.	5	0	0	A Friend	1	0	0
Dr. C. J. B. Williams ...	5	0	0	Dr. J. W. Ogle	1	1	0
Dr. Male	5	5	0	Dr. Hockee	1	1	0
Dr. Cotton	5	0	0	Dr. Lord	1	0	0
Dr. Stocker...	5	0	0	Dr. Blower...	0	10	6
Dr. Lavies..	5	0	0	Dr. Dunn	0	10	0
Dr. Risdon Bennett ...	2	2	0				

Justitia.—Dr. Hennis Green was the founder of the "*Provincial*," now the *British Medical Journal*. The full particulars of the circumstances which led to the establishment of the journal will appear in due time. Justitia is wrong in supposing that the journal was published originally by the Association.

Dispenser.—There is much truth in the letter signed Δ in the last number of the *Pharmaceutical Journal*, with reference to the careless manner in which prescriptions are "made up" at many of our dispensaries and, it may be added, in the out-patient departments in some of our Hospitals. The fact is, the dispenser, as a rule, has too much to do in the short space of time he has for dispensing. It is remarkable, under the circumstances, that so few mistakes occur.

Woman's Claims.—We have read with much pleasure the articles by Mr. Cordy Jeaffreson, entitled "Female Artists and Art Schools in England," in late numbers of *Art*. They show, no doubt, that women are as well qualified as men to reach a high pinnacle of artistic skill. But we cannot admit the correctness of our correspondent's analogy between art and Medicine. That a woman can, and does, become a tolerable artist is, to our minds, no proof whatever that she would become a great Surgeon or a great Physician. We have opposed the admission of women to our schools of Medicine on no illiberal ground. Our opposition has been based on the conviction that Medicine and Surgery are the "spheres for men." Much has been said and written in favour of women Physicians, but more has been said and written against them, and we think with greater cogency.

The Dispensing of Drugs.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—For some little time past, one of your rivals has been treating of this question—one, to our Profession, of great importance. There can be no doubt that, as long as the great bulk of our town Doctors dispense, so long will two evils result—first, scores of able men will hesitate to enter a Profession in which there is, what to them appears to be, a good deal of trade; and, secondly, and still more important, the status of the whole Profession is terribly lowered, for people usually—nay, invariably—think that they pay for the drugs supplied, and not for the care and advice, which are of tenfold more importance.

I commenced practice in a large and most important town, in which many well-qualified men supply a bottle of medicine and advice for one shilling to persons coming to the Surgery. I did not dispense, and did not get on well, but was told by Medical friends that one great reason was that all the men in my neighbourhood dispensed, and that scores of persons were quite willing to have advice and receive a bottle of medicine in return for a shilling or two; but they would not pay the Doctor for his prescription, and then go to be fleeced by the chemist. I tried making an arrangement with one or two druggists; but it was of no use, for, rents being high and the neighbourhood a good one, it several times occurred that the chemist charged me more for making up half-a-dozen prescriptions than I received from my patients for writing them. Frequently respectable patients told me that they had to pay so heavily for getting the prescriptions made up that they hoped I would not give them too much medicine. It fell to my lot to notice that the preference was given to receiving the medicine from the Doctor, because then there was one bill to pay, and not two. These, it may be said, and with truth, are only the difficulties of a man whose position had still to be made; but how about the men, and they are not few, who never do make a position? and how about those who continue to keep clubs, and societies, and posts which compel the holder to dispense?

With great joy I should hail the advent of some radical change, but hardly see how it is to be carried out. Of course, in country villages the unhappy Surgeon-Apothecary must dispense.

I am, &c. A BACHELOR IN ARTS.

A.—Not if the agreement was properly drawn-up and executed.

Rivo.—Not if the certificate bears date antecedent to the promulgation of the regulations.

Leeds.—An Atkinson-Morley Surgical scholarship of University College, London, is awarded every year. It is of the annual value of £45, and is tenable for three years.

H. M., Birmingham.—Neither Mr. Talbot, Bridgwater, or Mr. Clarendon, of Harborne, near Birmingham, are Members of the London College of Surgeons; in fact, their names do not appear as *registered* Practitioners. The circular should be sent to the gentleman named.

A Provincial Student.—The Calendar of the College of Surgeons will give you all the required information, including the questions of the past year.

Dr. McB.—You will find similar cases recorded in vol. xix. of the *Medical Times and Gazette*. There is an excellent bust of the late Sir William Lawrence in the hall of the College of Surgeons.

Reminiscences of an Old Cupper.

My father was cupper to King George IV. for upwards of half a century, and His Majesty was constantly in the habit of being cupped without consulting his Physicians.

I remember one winter's night (when at home for the holidays) being woke up by a loud knocking at the door, and hearing my father open the window on the second floor and ask who was there, and a voice said, "Get up, M——; I want to be cupped." My father replied that he could cup no one at that hour, as he had no hot water. The voice said, "Then cup me with cold, for I must be cupped."

It must be remembered that in those days we had no gas, and the darkness was intense; but my father afterwards said that he thought there was something out of the common about the speaker, so he went down stairs and opened the door, when he found to his surprise that his nocturnal visitor was no less a person than his Royal Highness the Prince of Wales. Of course everything requisite was prepared, and his illustrious visitor took his departure perfectly satisfied.

My Attendance on His Majesty, King George IV.—In the year 1823, being 18 years of age, I was a student at St. George's Hospital, and my father had made me a very expert cupper. It was in the month of August, and my father had waited in town till his Majesty left, when the old gentleman went to Ramsgate to enjoy himself for a few days. He had not been gone above a few hours when a command came that he should be at Windsor-cottage, Virginia Water, at 9 o'clock on the following morning. There were neither telegrams nor railroads at that time, so I determined to risk the journey myself. My poor mother dissuaded me, as the King had frequently refused to let anyone cup him during my father's absence. However, to Windsor I went, and I gave my card to Mr. H——, one of the pages-in-waiting, and both he and Mr. W—— laughed heartily. Nevertheless, they took my card up; and the message that came down was, that I was to get my breakfast. I sat in the antechamber (very nervous you may imagine) till 4 o'clock in the afternoon, when I was shown into the presence, where I beheld the king stripped to the waist, sitting across a chair the usual position when being cupped on the nape of the neck). His Majesty smiled and said, "How's the old boy (meaning my father); is he quite well?" I thanked his Majesty, and said he was quite well, and gone to Ramsgate for a few days. He then asked, could I do the "little job" for him? and told me to set to work. I may mention a mark of his Majesty's kind thought: when my father cupped him he had cheval mirrors placed so that he could see everything both before and behind him; on this occasion he desired the pages to turn the backs of the glasses.

During the short operation (for I took forty ounces of blood from him in eight minutes and a half), he encouraged me in every possible manner, with "Bravo! just like your father," etc. I remember one expression he made use of when I applied the glasses rather tightly; he said, "They pull most puissantly." When leaving the presence, his Majesty called me back, and said—"Go home, and tell your father that I am quite delighted with you; and he may go to Ramsgate or anywhere else as long as he sends you in his place."

Cupping a Patient walking about.—On the night of our gracious Queen's

coronation, when I was in Edinburgh, Dr. Abercrombie sent me to ———, about two miles from the city, to take twenty-four ounces of blood from Sir J—— G——. He was a confirmed lunatic, and had seriously assaulted his mother (Lady G——) in her carriage that day. When I went in, I found the baronet walking up and down the room, making and taking imaginary bets, and booking them. I humoured him, and made several ridiculous bets with him, which he either booked, or pretended to do. I must mention that he was an immense man—upwards of six feet high, and most powerfully built—and his attendants were the coachman and footman—two sturdy fellows. He seemed to be in very good humour, and I politely asked him to sit down; but he only smiled, looked vacantly away, and resumed his walking. It was 5 o'clock when I arrived, and I waited patiently till 8 o'clock without success. Lady G. earnestly requested me not to leave without cupping him. Two hours more elapsed, when I hit upon an expedient. He was without his coat, and I gently undid his cravat, and slipped his waistcoat off. I then bade the coachman go on one side of him with the basin of hot water, and the footman on the other with the candle, and I had four large glasses on his back instantly. Strange to say, he sat quietly down in a chair, and submitted passively to the operation. I had cupped him before many times, but never had the slightest trouble. Lady G. fee'd me very handsomely.

COMMUNICATIONS have been received from—

Dr. E. Long Fox; Mr. J. Chatto; Dr. B. W. Richardson; Dr. Winn; Mr. A. Trehern Norton; Mr. Henry Smith; Dr. Letheby; Dr. Buzzard; Dr. Felce; Dr. J. L. Roberts; Mr. H. Arnott; Mr. W. Tressider; Dr. Bisset Hawkins; A Bachelor in Arts; Dr. W. Dickson; Mr. Hall; Dr. W. Bathurst Woodman; Mr. R. L. Jordison; Dr. S. Foulds; Mr. W. W. Reeves; Mr. James Keene; Mr. C. R. H. Johnson; Mr. Thomas Hunt; Dr. Phillips; Dr. D. Campbell Black; Mr. J. Robertson; Mr. C. J. Wright; Messrs. G. W. Fox and Co.; Dr. Broadbent.

BOOKS RECEIVED—

Monthly Microscopical Journal, November—Dr. Taussig on the Roman Climate—Food Journal, No. 10—Thorne on Masked Epilepsy—Fourteenth Report of her Majesty's Customs on the Customs—Practitioner, No. 29—St. Bartholomew's Hospital Reports, vol. vi.—St. Thomas's Hospital Reports, vol. i., new series—Edinburgh Medical Journal, No. 185—Science Gossip, No. 71.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—The Scotsman—Wellington Journal and Shrewsbury News—Edinburgh Evening Courant.

APPOINTMENTS FOR THE WEEK.

November 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

7. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

Medical Society of London, 8 p.m. Mr. John Daniel Hill will make a casual communication on "Primary Excision of the Knee-joint; and Aneurism by Anastomosis—Successful Results;" after which Dr. Sansom will read a paper on "Putrefaction, Fermentation, and Morbid Infection."

Royal Institution, 2 p.m. General Monthly Meeting.

8. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Ethnological Society, 8 p.m. Mr. Hector McLean, "On the Kimmerian and Atlantean Races." Mr. C. R. Markham, "Note on the Name Aymard." Mr. David Forbes, F.R.S., "Reply to this Note."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Hilton Fagge and Mr. Durham, "On the Electrolytic Treatment of Hydatid Tumours of the Liver." Succeeded by—Second Special General Meeting to confirm Proceedings of that of October 25.

9. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

Hunterian Society (Meeting of Council, 7½ p.m.), 8 p.m. Open Meeting for Exhibition of Pathological Specimens and Discussion of Miscellaneous Cases. Dr. Peacock, "On the Leper Hospital at Lisbon."

Royal Microscopical Society, 8 p.m. Mr. S. J. M'Intire, "Notes on the Minute Structure of certain Insect Scales."

10. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

11. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Clinical Society, 8½ p.m. Mr. Durham, "A Remarkable Case of Spontaneous Fracture of the Femur." Dr. Wiltshire, "On Paroxysmal Hæmaturia." Mr. T. Smith, "On the Nature of the so-called Congenital Tumour of the Sterno-mastoid." Dr. Handfield Jones, "A Query as to the Safety of Subcutaneous Injections." Mr. Pollock, "Report of Cases of Skin-grafting and Skin-transplantation."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 29, 1870.

BIRTHS.

Births of Boys, 1155; Girls, 1074; Total, 2229.
Average of 10 corresponding weeks, 1860-69, 2042·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	656	610	1266
Average of the ten years 1860-69	657·3	638·6	1295·9
Average corrected to increased population	...	...	1426
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	2	1	29	...	2	...	4	1	6
North ...	618210	5	4	36	4	2	3	10	...	7
Central ...	383321	1	1	13	3	...	1	2	...	1
East	571158	12	4	17	...	6	1	2	1	4
South	773175	1	3	72	2	7	1	6	5	11
Total	2803989	21	13	167	9	17	6	24	7	29

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·316 in.
Mean temperature	48·2°
Highest point of thermometer	58·8°
Lowest point of thermometer	41·1°
Mean dew-point temperature	44·8°
General direction of wind	W.S.W.
Whole amount of rain in the week	1·16 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 29, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Oct. 29.	Deaths Registered during the week ending Oct. 29.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2229	1266	58·8	41·1	48·2	9·00	1·16	2·94
Portsmouth ...	122084	12·8	57	33	60·2	34·2	46·2	7·89	1·29	3·28
Norwich	81087	10·9	50	47	57·5	39·2	46·6	8·11	0·76	1·93
Bristol	171382	36·6	123	101	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	51	19	55·8	40·5	47·6	8·66	0·69	1·75
Birmingham ...	369604	47·2	230	112	57·2	41·5	48·6	9·22	0·66	1·67
Leicester	97427	30·4	74	67	58·0	38·7	47·1	8·39	0·87	2·21
Nottingham ...	88888	44·5	80	38	58·1	38·1	47·5	8·61	0·49	1·25
Liverpool	517567	101·3	370	340	55·6	43·0	48·5	9·16	1·33	3·38
Manchester ...	374993	83·6	234	164	57·0	38·0	47·7	8·72	1·67	4·24
Salford	121580	23·5	91	67	56·1	37·6	47·4	8·55	1·96	4·98
Bradford	143197	21·7	88	75	56·1	41·2	48·0	8·89	1·52	3·86
Leeds	259527	12·0	207	115	57·0	41·0	48·7	9·29	1·24	3·15
Sheffield	247378	10·8	211	88	57·0	41·5	48·0	8·89	0·90	2·29
Hull	130869	36·7	90	47	57·0	35·0	45·2	7·33	0·54	1·37
Sunderland ...	100979	30·5	91	40	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	104	48	53·0	38·0	45·1	7·28	0·12	0·30
Edinburgh	178970	40·4	117	68	54·7	40·0	47·5	8·61	0·30	0·76
Glasgow	468189	92·5	375	209	62·4	34·1	47·1	8·39	1·36	3·45
Dublin (City, etc.*)	321540	33·0	157	123	57·5	38·0	48·7	9·28	0·81	2·06
Total of 20 Towns in United Kingd'm	7216325	33·8	5029	3073	62·4	34·1	47·4	8·55	0·98	2·49
Paris—Week ending Oct. 22	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Oct. 22 ...	622087	167	...	287	...	...	46·6	8·13	...	...
Berlin—Week ending Oct. 27 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·316 in. The highest barometrical reading was 29·83 in. on Friday, and the lowest was 28·74 in. on Monday.

The general direction of the wind was W.S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital.

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

LECTURE VIII.

At last lecture we were considering a series of instances of sub-inflammation and chronic inflammation from a point of view regarding them as taking their nature from the normal mode of nutrition of those elements of tissue that are concerned in the processes.

We found that, in the glands, there are at least four kinds of inflammatory processes that could be traced in this way to degrees of irritation, bringing out the peculiarities of the several elements of gland. Indeed, in the case of the kidney, five kinds of irritative swelling correspond to five degrees of cause.

In order to complete our view of the behaviour of texture under irritations, we will, for a short time, examine the inflammations and hypertrophies of the bones, fasciæ, serous membranes, and other structures which offer us intercellular elements massed together in quantity to form parts that sustain only passive mechanical offices. I have left the consideration of these to the last, because the study of them leads naturally to the attempt to distinguish the proper characters of tumours, which will be our next subject.

Of the intercellular elements, there are two which have practically no formative irritations—I mean cartilage and elastic tissue. Cartilage itself nearly never increases under irritations; when subjected to them, its cells multiply and its matrix changes to fibres—it is no longer cartilage; it forms an imperfect or false areolar tissue, with wavy constituent fibrils. It is true that sometimes small elevations may be found on the costal cartilages, and I have seen, in the neighbourhood of chronically diseased knee-joints, in young persons, an expansion and irregular extension down, for a short distance, over the neighbouring bone, of the epiphysial cartilage where it was not yet ossified; nevertheless, all this is very minute and unimportant. The most common change in cartilage is the passive erosion that occurs in late life in nearly everybody. This, however, is not irritative; the cells become fatty and disappear, while the matrix changes to fibre, and breaks away in shreds, exposing the bone, which ultimately becomes polished and hardened like ivory. It is important to be acquainted with this change, which occurs without producing any symptoms. Often when inflammation occurs by accident in such a joint, and the results of the inflammation are viewed, this erosion of cartilage is erroneously thought to be ulceration of the cartilage due to acute inflammation. But ulceration of cartilage from traumatic inflammation produces a different and, I believe, a quite peculiar and recognisable appearance, the cartilage going so as to leave isolated patches of its entire thickness adherent as ever to the bone, and wearing away at their edges. On the other hand, spontaneous—say strumous—disease of the joint leads to the wasting, thinning, and exfoliation of the cartilage. In all these various changes the process is most pronounced and advanced in the parts where the articular ends are in contact, these parts being weakened by continual pressure.

Elastic tissue does not multiply, but, like cartilage, when it is diseased, the result upon it is a change to an areolar tissue. This is beautifully seen in the lung, in the thick callous cyst that surrounds the relics of old tuberculous disease in the apices. Here, in fine sections, you will see the elastic tissue of the lung graduate in all degrees of intermediateness until its fibrils are changed to connective tissue cells, the perfect elastic tissue on the outside of the cicatrix leading to perfect connective tissue in the inside of it where in contact with the relic. But the most important effect of change in elastic tissue is found in the arteries in the processes that have the unfortunate name of atheroma. It is too much the fashion—at least in this country—to assume that all the processes in the arteries which lead to the deformation of their interior by yellow patches, swellings, petrifactions, or erosions, or to aneurisms or rupture of the vessels, are all of a degenerative origin, and that all are sufficiently described and defined in the common notion of atheroma. The truth is that sub-inflammatory irritation plays a very important part in these changes. A few weeks ago we had an example in a man whose aorta was coated within in patches with vegetations such as occur on the valves in endocarditis, while the affected parts of the coats were soft and sub-pellucid, had lost their elasticity, and were yielding to form aneurisms. This case showed in an evident way what is generally true, though not quite so evident—namely, that the aneurismal process in arteries is of an inflammatory nature in its origin. I mean it is as much inflammatory as cirrhosis of the liver or granular kidney. I need not again state the relation of these to clinical inflammation, which does not occur in either of the three processes. The evidence of the irritative character of the process in the vessels is seen on microscopic examination. You know well the anatomical description of the arterial coats, *intima*, *media*, and *adventitia*: the elastic lamellæ of the first, the muscular and elastic fibres of the second, and the common connective of the third. But what I want to draw your attention to is the very general omission, by describers of the coats of arteries, of the elements which show activity in the disease we are considering. These elements are a system of cells with radiating fibres, communicating together throughout all the coats. They are best seen in those flecks or patches of superficial, opaque, yellowish change that you are sure to see in any aorta more than five years old. These yellowish flecks are the only pure examples of fatty degeneration of the arterial coats you ever meet, and they are quite unimportant. If you examine these microscopically, they resolve into caudate corpuscles loaded with fat grains, the corpuscles very beautifully brought to light by the fat, which gives a dark opaque look to them by transmitted light. It is curious to notice that in the false arterial passages, in dissecting aneurisms, the lining membrane in the passage shows this change in perfection, though the membrane is adventitious. Now, cells similar in form to these are found throughout the coats of the artery, and when the deeper ones are diseased this is what is seen: the cells which lie between elastic fibres or laminæ in the deep part of the inner coat are found to have multiplied—or, at least, the place of one is held by a number—so that collections of cells lie imbedded among the lamellæ of the coat; at the same time the lamellæ themselves have a fibrous look, the result on the naked-eye appearance being that the coat swells, and instead of its yellowness and elasticity, it has a starchy clearness and a flabby feel, while the affected part falls into wrinkles when the artery is laid open, having expanded beyond its natural limit of surface, so that it bulges out as an incipient aneurism when the artery is unopened. If this process is acute—that is, if the cells are produced quickly—the effect on the lamellæ is proportionally severe, and then an aneurism is the result; and all this may occur when there is no excuse for the word "atheroma"—the process is sub-end-arteritis, or, in short, arteritis, and aneurism is its accident. The coats bulge out to make an aneurism, and they spread and blend with the tissues that yield before the pressure within them; and meantime their layers of fibrin, such as I have mentioned as lining adventitious arterial channels, and resembling—ay, indistinguishably resembling—the innermost lining of the artery, are laid down within the advancing sac; and then Pathologists write very much upon the question, "whether the proper coats of the artery are or are not in the aneurismal sac;" the truth being that the inflammatory course of the aneurismal change has altered the coats beyond recognition when the aneurism has reached beyond a small size. In the earliest stages the proper wall of the artery, though diseased, and having lost its distinctive coats, can be traced well into the sac. The resemblance of the fibrinous lining, which all aneurisms have, to the inner coat of the vessel has, I suppose, given rise to the fable of hernial protrusions of the inner lining through ruptures in the outer coat. But aneurism is only the termination of the more acute of these changes. If the disease be slower, then you get one of two results—either the multiplied cells, together with the elastic tissue about them, break down into shreds and grains, in which cholesterine forms, so that a pulpy patch is found in the deep part of the inner coat, constituting true *atheroma*; or else, if the process is yet slower, the new formation calcifies, and you get a stony plate in the inner coat, which may or may not have some of the inner coat on its internal surface. All this applies only to the greater arteries; the smaller, such as the radial, show only the semi-cartilaginous thickening of the interior, the aneurismal swelling, and the calcification changes.

The tendons and fasciæ are singularly free from formative irritations; with this exception, that wherever you meet membranous expansions covered with epithelial surfaces—as in serous and synovial membranes—then you meet in them with a very great liability to formative irritations of all degrees of

severity. What part the epithelium takes in these processes is not fully known, though interesting observations have recently shown that it plays an important part. The ready sympathy of serous and synovial membranes with general or blood diseases makes a sharp contrast with the absence of such formative changes in the fasciæ. It is curious that if the serous surfaces are done away by adhesion, when the epithelium only has gone, then the inflammations do not arise except when the cause is very severe. This seems to show that it is to the epithelium that the liability to inflammation under these circumstances is owing. These inflammations occur often from colds, like catarrh. Catarrh of serous membranes is a very convenient, and probably exact title, for some forms of acute hydrothorax and ascites. The certainly mechanical causes of dropsy search out a peculiarity of these membranes in their allowing a very free flux into the cavity they bound, and this peculiarity is no doubt due to the absence of definite pressure on their surfaces, which makes these surfaces offer a direction of least resistance to the fluid, so that it passes out and collects in the sac. The same free flow of fluid from the surface is the main peculiarity of these inflammations, and this has an interesting bearing on the views we must take of the cause of flux in acute inflammations; since, as pressure causes the dropsical effusion, pressure may be expected to cause the inflammatory effusion also.

The formative diseases of bone give us some very important pathology, interesting from their variety and distinctness. The bones are very liable to have their substance increased in a variety of ways, which produce different effects on their size and shape. And these differences, which are very marked, have led to the adoption of a rather puzzlingly large variety of names for the growths, according to their superficial characters.

The simplest kind of increase which bone shows is the overgrowth from over-use, which it shows in common with all parts having active mechanical powers—and, indeed, we may say with all tissues, for the exceptions are scarcely worth notice. But this increase does not generally in the bones make or even mark any pathology, as it does in the case of the heart, bladder, and other hollow muscular organs. Very different is it with another form of general enlargement of the bones, which is met with as a rare disease, and forms, indeed, a most terrible, unsightly, and hopeless malady. Cases occur where the bones grow—you cannot tell why, but it sometimes appears as an hereditary peculiarity; they enlarge to double their proper size or more, and their texture becomes firm, but porous. The change attacks more or fewer bones in different cases, and the effect is, of course, different, according to the part attacked, but is always bad enough. The facial bones grow to frightful size. The skull of Forcade's son (pictured by Lebert) weighed 8¾ lbs., and the lower jaw alone 3 lbs. 6 oz. Leontiasis ossea is the name given to this condition, as it responds to the leontiasis which arises from hypertrophy of subcutaneous tissue in the face.

Sometimes the whole skeleton is affected. In a case by Sancerotte, a man 39 years old had, in four years, grown in weight from 119 to 178 pounds, while his soft parts were diminishing; his bones were enormous; he suffered only seizures of dyspnœa and coma. Two cases in one family I have since seen reported; and one occurred in Dr. Gull's practice, and was shown by him and Dr. Wilks at the Medico-Chirurgical Society. Nearly all the bones were affected, and the patient died of immobility of the chest wall, consequent on changes in its bones. A very remarkable example of this terrible disease is given by Dr. Murchison in vol. xvii. of *Path. Trans.*, 1865. The cranium, hyoid, and fibula were diseased.

Lesser degrees of a similar thing are found in the skull especially, and have been set down to rickets or syphilis, though very doubtfully. The appearance of the bone is peculiar, being very porous, the surface wanting that smoothness and polish which bones usually show. The term osteoporosis, or spongy hypertrophy, which has been given to it, expresses the appearance very well.

Distinct from these are the hypertrophic enlargements of the long bones of the leg, described by Mr. Stanley as causing inequality in the limbs. But either of these diseases shows the unalterable character of increase of the bone as a permanent, shape-preserving, intercellular element. The first, however, is a progressive and spreading disease, while the second after a while stays its bad results, being then confined to the causation of equine talipes of the other limb, from the effort to rise to the height which the elongated femur makes the patient stand at, or else of curvature of the spine as he bends to rest on the shorter healthy limb. To both these conditions the general term *hyperostosis* applies, or, if the increase be more limited, periostosis is the term used.

In both these kinds of change in bone the size of the bone is increased; but there is another sort of change of a different kind, in which the bone, instead of swelling through enlargement on the surface, receives additions to the interiors of its cancellous spaces, so that instead of the natural open texture which you find in short and flat bones and in the ends of long bones, you meet with a dense bone like the shaft of a long bone, or even harder still. This *osteo-sclerosis* is to the medulla of bone what *hyperostosis* is to its periosteum, an unnatural progressive transformation into bone. Besides the general eburnation of the bone by formation of new bone in its medullary spaces, you may very rarely meet with a small growth of distinct bone in the medulla of a long bone. This is called an *enostosis*.

But so far we are dealing with exaggerations which observe the natural form of the bone. There are, besides these, other circumscribed enlargements forming projections which are of different significancies. Thus, many local enlargements of bones are the remains and records of periosteal inflammation, either proper to the periosteum, as a syphilitic node, or else from contiguity with ulcers, as we may see on tibiæ or on crania in all museums; it is usual to call these "nodes." Others appear to be malformations, as in the case of the supra-condyloid process of the humerus or femur, which has long been recognised as representing the foramen which in some carnivora and other animals allows the passage of the vessels and nerves of the limb—a fact like in character to the supernumerary nipples that you see in some individuals, or like the remblaure Mr. Paget traces between some of the directions and plans of ossification of hydrocephalic skulls and the skulls of monkeys, &c. Others yet must be referred to a distinct kind—such as the prominent processes of bone we see on the femur, tibia, or very often indeed on the last phalanx of the great toe, which is very liable to the formation of exostoses. These exostoses are quite rare on the bones of the upper limb; but they appear again frequently enough on the jaws. There is one position where they are common—I mean on the inner face of the cranium, always first and chiefly on the frontal bone, where you may see one or two small distinct elevations like cowrie shells not infrequently, but especially in persons with hereditary tendency to brain disease. These exostoses become sometimes very numerous and close-set, and then are attended by epilepsy or idiocy. Of the so-called puerperal osteophyte, which is described as a growth of a thin layer of new bone on the inner face of the cranium during pregnancy, I have never seen an unequivocal example.

There is yet another very important kind of local bone formation, and that is the production of a quantity of bone around and in the ligaments of joints. It occurs in old age generally, though it occasionally happens earlier in life; and it goes with very severe disabling of the joints. The most remarkable appearances so produced are seen on the front of the spine as an ossification of the anterior spinous ligament; and thus is formed a band of bone extending almost the whole length of the column. It is curious that this is rarely symmetrical. Generally, the one side is affected much, and the other little, if at all. Now, very often this state is complicated by the development of exostoses. These generally arise at the edges of the articular surfaces, and, by uniting, they bridge over the intervertebral substances, which remain often unchanged. We have in the museum a remarkable specimen of the ossification of the ligaments in the lower jaw in the skull of a negro; and we have also very numerous specimens of this ossification of the ligaments in the shoulder, hip, elbow, knee, and other joints.

Awkward.—A Doctor's Swallow.—The coal-beds discovered in Bellary are excellent in quality and abundant in quantity. Great anxiety is felt for Dr. Oldham, who said he would eat all the coal found in the Madras presidency, for the Doctor is a man of honour.—*Times of India.*

The experiment that filth is the nurse and not the mother of disease, is carried out most convincingly in Hankow. Crowded tea-shops, standing on stilted supports, right over cess-pools which have no outlet, save in the bubbles of gas which slowly and loudly distil from the brooding filth, are but a sample of the foulness which riotously reigns in the dark places of this wealthy mart. A system of drainage does, however, exist in some parts of the town, dictated by the annual inundation, which can sometimes be managed so as to lead off the flood of waters into the swift Han or the Nile-like Yang-tsze Kiang.—*Annual Report of the Hankow Medical Mission. by F. Porter Smith, M.B.*

ORIGINAL COMMUNICATIONS

SCIATICA: ITS IMMEDIATE RELIEF AND RAPID CURE BY HYPODERMIC INJECTION OF MORPHIA.(a)

By HENRY LAWSON, M.D.,
Assistant-Physician to St. Mary's Hospital.

(*Continued from page* 121.)

ENDERMIC AND HYPODERMIC METHODS.

It is only needful to say a word or two in regard to the endermic method in sciatica, for it is essentially the hypodermic plan painfully applied; it may as well, however, be mentioned that it consists in blistering the part, and then applying morphia to the portion of the skin operated upon. The objection to this is that there is a constant sore: that it is troublesome; that, unless it is done with a hot application, it takes time; and finally, that it is not at all so rapid in its effects as the hypodermic method. There is no necessity for further remark in these pages, for we shall presently come to the consideration of the hypodermic method itself, which is unquestionably better and more reliable—I should think.

Of all hypodermic methods, I should think that of plunging a needle into the sciatic nerve at once the most courageous and futile that there is. I have never either attempted nor witnessed the operation, nor should I care to, for I consider it to be most unquestionably wrong. It is based, I believe, by those who adopt it on the supposition—for such it must be—that the sciatic nerve has undergone some change, which has increased its size and enlarged its sheath with a quantity of morbid fluid matter. What there is on which to found this very remarkable theory I confess I have failed to observe. Doubtless, those who admire the operation have satisfied their own minds on the point; but, while the pathology of sciatica remains in its present condition, while we are so painfully ignorant of the nature of the change which takes place, of the part of the nerve in which the supposed enlargement occurs, or, indeed, as to whether the pain really proceeds from the nerve itself or from its finer branches, I think there are grave reasons for the abandonment of such a line of treatment as that to which I have referred. Nevertheless, I have referred to the process, and I think to refer to it is sufficient; at least, I shall not take upon myself to describe a mode which I believe—so far as I may believe—to be at best profitless.

Before we come quite upon the method which I have found so successful, it is requisite to mention a system practised by so distinguished a man as Trousseau. It is a Surgical rather than a Medical one, and it may be very briefly described as consisting in cutting down upon the painful part, and inserting a piece of cotton-wool between the lips of the wound to keep them from uniting. This method, which is certainly more of a Hospital than a private patient cure, is, at the best, a rude one. Dr. Trousseau, who describes it at length, speaks very favourably of it, and gives cases to illustrate his view; but we should not advise our readers to put the method into private practice, nor do we see any necessity for it. The hypodermic method is so easy and simple—painless, if necessary: but so little painful when most so; and is, after all, applicable in about, at a low estimate, 90 per cent. of the cases—that it readily takes precedence of so formidable a process as that just described. Indeed, the hypodermic method is in advance—far in advance—of all that we have hitherto said, and for this reason we have kept it till the last; that those who have attempted, and probably may believe in, other methods, may see that before adopting it we have faithfully attempted most other existing plans of treatment.

Hypodermic Injection.(b)—We have come at last to the true and, as I believe, *almost the only remedy for sciatica*—the hypodermic injection of minute quantities of opium. It is a remedy which we have used successfully in our own case after everything else had been attempted vainly; we have every reason to have a thorough faith in its effects, and our readers will therefore excuse our being a little prolix in our description of it. Firstly, of the syringe. There are many varieties employed, which principally belong to three classes. There is the syringe, the piston of which is moved up and down by a screw-movement. This we object to, because it is unnecessary, when it goes out of order it is more troublesome, and because it adds a useless degree of complexity to the apparatus. Next there is the syringe with the fixed nozzle, in which the needle, if broken, cannot be restored without sending to the makers. This, also, we strongly disapprove of. Lastly, there is the form which consists of a plain piston working up and down in a silver cylinder, and causing the fluid to move up and down a glass tube at a distance from the piston, and in which the needle is attached to the rest of the apparatus by means of a screw. This is the form which we always employ, and which we especially recommend. We do not see why it is made only to hold about six minims; it would be more convenient for general use (for other purposes than for use in sciatic cases), if it was made of larger capacity, but that concerns us little at present. In regard to the needle, we always employ a steel one, and we prefer its use for several reasons; we will only mention a few. Firstly, it is much more readily introduced into the frozen skin than gold; secondly, it is far less likely to break (I have never broken one, but I have broken two or three of the others). There is, however, an objection to its use which must be avoided. It is very apt to rust within, and if only occasionally used it is almost certain to do so. The remedy for this is one which ought in any case to be always employed, because it, so to speak, is a guarantee that the passage is free: it is a piece of gold or silver wire, kept always within when the syringe is out of use. If this precaution be adopted, we see no objection to the employment of steel nozzles for the syringe, but, on the contrary, every argument in their favour. With such a syringe, the reader is provided with the best now made. There is a serious objection to those syringes at present in use—viz., that they are exceedingly apt, by the smallest possible, and occasionally even by no ill-treatment, to give way at the junction of the glass syringe with the lower part, or screw, which the needle is fastened to. If a syringe is constantly in use, it is impossible to prevent this occurring, and especially if one is in the habit of using warm solutions. I think this might be partly prevented by attaching a shoulder to the tube at its extremity, and adapting the part into which it is fastened so that the syringe might enter and be screwed round. This would prevent that traction to which the syringe is now so much subject, and would, I think, prevent accidents.(c)

The prevention of pain during injection is a very important point, and I think, too, is one which many of us do not understand. Dr. Richardson's spray-producer, with his peculiar ether(d), gives the practitioner an easy and rapid means of producing the necessary anæsthesia, and should in all cases where pain is much complained of be used. It is unnecessary to do more than refer to an instrument so well known. In using it, a very small portion of skin—about the size of a shilling—is, if necessary, frozen. If necessary is said, because when the sudden pallor is produced, and the part is literally frozen, a certain amount of redness is subsequently (twenty-four hours) produced. This may be prevented by simply causing a layer of water and ether to freeze upon the skin. By this means there is frequently sufficient anæsthesia produced to admit of the operation without the least after effect that is perceptible, and without that unpleasant sensation of pain which is sometimes so annoying.

Having described the apparatus employed, we may now say a word or two about the substance administered. Of course this is morphia; but there is a something to be said about it. Whether acetate or hydrochlorate be employed matters little. I myself use muriate, and I advise its employment. But what strength shall the solution be? I should say that a solution for hypodermic injection, such as that always prepared for me by Messrs. Hopkin and Williams, should be ℞ morphiæ muriat. gr. x., aquæ dist. ʒij., solvii.

This solution is always solid at ordinary winter temperature, and generally so at summer. It contains half a grain of morphia in every six minims, and it must be heated before each

(a) It may be as well to state that in advocating the method of treatment described in the following article I lay no claim whatever to originality. I merely give the results of my experience of a remedy which is as simple as it is effective. The application of the syringe to the hypodermic method we owe, I suppose, to Hunter and Wood. The hypodermic administration of morphia in sciatica was urged by Dr. Blakiston in these pages nearly fifteen years ago. It is too much the custom nowadays to father upon a writer the discovery of a remedy or plan which he has merely taken secondhand from another, but which he may have been more successful than his predecessor in popularising; and writers themselves too frequently encourage the mistaken inference. This has happened so often of late that one almost despairs of that moral regeneration in Medical writers which leads to the discrimination between reticence and candour.

(b) We had originally proposed adverting to the hypodermic employment of caffeine and atropia, and to the use of chloral, but we find we have already too far exceeded the space so fairly allotted to us by the editor.

(c) I may mention that the needles of some syringes are made much too long. I have seen one quite three inches long, whereas an inch and a half, or at most two inches, is abundantly long.

(d) Sold only by Mr. Robbins, chemist, of Oxford-street.

injection. This latter process seems a useless one at first sight; but it has this great advantage, that when cool the solution is perfectly solid, and thus it escapes decomposition, which inevitably takes place in those solutions liquid at ordinary temperatures, and which, from the writer's experience, inevitably does take place, filling them with fungi, and so rendering them dangerous substances to be injected. I should like to impress upon my readers the necessity of preparing the solution as above: simply the addition of so much muriate of morphia to so much distilled water, adding neither acid nor glycerine—for the first gives rise to extreme pain, and the second, I am seriously disposed to think, forms a new compound, which seriously interferes with the result. Very little trouble is required, merely a little heating in preparing the solution, in the manner in which I have advised.

With regard to the quantity of morphia required, that will, of course, depend on the case and on the previous habits of the patient; but, if we may suppose a an ordinary case coming to us after a few weeks, we should not commence with a larger dose than the one-sixth of a grain—*i.e.*, mij.—in our syringe. Even this will in particular cases—rare of course, but which every one will see occasionally—produce the most unpleasant results of heart disturbance and vomiting. These cases constitute about 5 per cent. of all. But the Practitioner is perfectly safe in giving one-sixth of a grain as an opening dose. He can follow this up at an interval of twenty-four hours with a larger dose, if requisite; and afterwards he will, of course, use his own experience in treatment. In severe cases it will be necessary to inject twice a day, and occasionally, in rare instances, three times daily. There are some, perhaps, who think that it would be better to give a large dose at once; but I must unquestionably differ from them. Both from the effects upon myself and upon others, I may unhesitatingly state my belief that the method of giving more morphia than from half to three-quarters of a grain at one application is objectionable, and should not be attempted; if necessary, it may be given at eight hours' interval, thus making three injections in the day. But even this is almost going beyond the range. It will be understood distinctly that I am speaking of sciatica alone, for in other affections many grains of morphia may be taken in the twenty-four hours.

If, now, we suppose a case, it will make our treatment more intelligible. The patient lies in bed about nine or ten o'clock at night, and we have to perform the operation. Let us suppose it is the right limb which is affected. First, we melt the morphia and examine the syringe, to see that all is right. Then, if freezing is requisite, the patient being required to lie upon his left side, we select a spot on the right thigh, about four inches from the hip-joint directly downwards towards the feet. Here we blow the ether on the skin for a few moments, till either a layer of frost is produced or a sudden white marking; then, laying aside the apparatus, we fill the syringe from the morphia solution with exactly two minims of morphia, and proceed to inject the nozzle into the centre of the frozen skin. How is this done? It seems such a simple thing that instructions appear out of place; yet they are not. It is of some consequence how the syringe is held and how it is introduced into the skin. With regard to these points, of course each person has his own way. This is ours:—Holding the syringe between the thumb and two fingers of the right hand at a point at which the nozzle joins the rest of the instrument, and allowing the body of the syringe to rest against the forefinger, we steadily introduce the needle at an angle of about 40° to 45° to a depth of from an inch to an inch and a half. Then, with equal steadiness and with sufficient slowness, we introduce the fluid. Finally, we withdraw the syringe steadily, but promptly, placing one finger on the skin to prevent it being drawn forwards. If there is any bleeding, a little piece of cotton-wool pressed on the wound will, in almost all cases, be sufficient to arrest it.

So much for the operation—one of very little difficulty, and attended with the most blessed result. It may be repeated quite close to the same spot, and for months within a radius of an inch and a half. It is followed by the most marked relief and pleasant feelings—more promptly, perhaps, in my own case than in some others. I had had no relief from pain for months, notwithstanding that nearly everything that Medical art could achieve had been resorted to. The moment I was hypodermically injected—which was recommended and done by Mr. Ernest Hart—I obtained relief. But now a question arises—Is the relief of the same strength whether the morphia be injected in the neighbourhood of the pain or into some distant part? This great question I consider not decided, even though the Medico-Chirurgical Society has reported on it. I do firmly believe that there is a difference in the case of sciatica. I have tried the effect of distant operation on myself and on patients, and always with the same result—that there was far less immediate relief from the pain. If I am asked to explain this physiologically, I am bound to say I cannot. But there are some things of which we are so sure, that, though we are unable to see the way to explain them fully, we can, nevertheless, admit, and this with me is one of them. Of course, if my pathological idea of this disease is correct, it would be more intelligible; but that is a question it is nearly impossible to decide at present.

At all events, be the theory what it may, the effects on the patient are very well marked, and are briefly as follows. The effects are of course more marked in some patients than in others. In some mediately liable to the action of opium they are these:—Within half a minute to a minute from the time of injection there is felt a peculiar sensation in the stomach. It is not painful, but uncomfortable, and apparently consists in a series of very decided contractions, travelling from œsophagus to intestine. These very soon pass away, lasting but a few minutes; but they are the first symptoms. Pain is immediately banished; no sooner has the sensation at the stomach made its appearance than pain vanishes. It totally—when a proper injection has been made—disappears, as if it had been something which, so to speak, had been immediately removed. This forms the great peculiarity of the hypodermic mode in these cases—that is, a couple of minutes from the application of the drug the pain has ceased to appear. It is to those who try it for the first time something so marvellous that they can hardly understand it; and, indeed, in cases of severe sciatica, when the patient—as in my own case—has suffered without relief for months, it is truly remarkable.

But this is not all. The patient is, so to speak, fairly under the influence of opium. He thinks too rapidly—not in a state of stupor, but in a state of the most intense restless activity, yet so intense that the mind cannot be placed at one thing with advantage. It is doing the work of hours in a few moments; but there is with this a dislike to active exertion, even to the writing down one's thoughts. To sit down and enjoy oneself is the highest thought, and the strongest one. The most curious part of the matter is that utter absence of worry. I should almost think that the most severe misfortunes would be borne easily by men in this position; but, at all events, ordinary trouble or misfortune is completely forgotten, and it is impossible for one who has never been beneath the influence to imagine the condition of happiness, the equability of mind—the general contentment, so to speak, which exists. But how long does this condition last? We may say, for about three hours; that is its time usually. For three hours the condition I have described is less or more maintained. What happens then? Sleepiness comes on—the heavy, dull sleepiness resulting from opium. The patient, having taken opium, say, at nine o'clock, goes to sleep about twelve. Then, of course, his length of sleep will depend on two factors—his general ability for sleeping, and the extent of his disease; but generally we may put him down six hours—sometimes he will take as many as nine—and will then wake up. How is he then? If he be slow-pulsed he may possibly still feel sleepy; if not, he will probably feel wakeful enough. And how about his food? Strangely enough, it is one of the peculiarities of opium when given by the skin that the appetite, so far from being impaired, is absolutely strengthened. Indeed, it will be well to operate immediately after a meal (say supper); but, apart from this, the patient will usually require more food, and it will be well, of course, to give it to him. Generally this is the effect produced:—The patient's appetite is largely increased; and doubtless this is one of the best results attained. Altogether we see a peculiar state of things—absence of pain, intense comfort for a time, prolonged sleep, and increased appetite. These seldom last longer than the twenty-four hours, and I think it will be well then to repeat the dose; but this is a matter on which Physicians can exercise their skill. Hospital patients which were injected only twice a week recovered; but I must say that those which I had made special arrangements to inject every day made more progress.

What are the physiological conditions produced? How are the pulse, temperature, breathing, bowels? The pulse is at first increased in rapidity and in force; something has raised its whole powers. This remains for some time—from one hour to three; then loses force, without rapidity; and then, towards morning, it loses its rapidity. The temperature is not absolutely raised, but it is more distributed, and there being a rapider circulation and more force, there is more blood in the extremities, and thence higher temperature. The limb, before

the operation, was quite chilled, being colder than the healthy one; now, under the opium, both are sensibly increased. The breathing is, of course, in proportion to the pulse; but in some few cases I have noticed peculiarities which I have not yet got the explanation of. The bowels are seldom constipated; of course in extreme cases they are so slightly; but, provided it has been the habit to have them opened every day, in nine cases out of ten it is continued, thus giving a marked contrast to cases where opium has been given by the mouth. When constipation is produced it is very readily got rid of.

I think I have now said all I intend upon the subject of the medical treatment, and that I may offer a word or two on the hygienic methods, which, it must not be forgotten, are always half of the treatment in this affection as in others.

Make your patient eat as much as he comfortably can; if he eats a little, make him eat often. Take care that he is always warm; that is a point of the utmost importance, and you will do well never to forget it. I mean not only to inhabit a warm house (and locality, if possible), but to wear warm woollen clothing (in winter) next the skin; this is a point of considerable importance. As to baths, I cannot say I approve of them in sciatica—most cases they disagree with; but if they are a habit—and a useful one—let them be continued. As to rest, I can only say consult the patient. Let him take as much exercise as he likes, but never after the least increase of pain is produced. Let things be made pleasant for him—I can say no more than that. Be assured, with the best remedies, that a person constantly worried cannot recover properly. No matter how little the worry, be assured it does its mischief. For think that during the whole day, while others have those various occupations which help to drive away their most unpleasant thoughts, with the invalid it is not so. He sits and ponders and makes to the worst purpose every little ill he learns anent his own affairs. I dwell upon these things because no one who has not experienced them himself can realise them. It is impossible for the perfectly healthly man to conceive how little an affair becomes to the weary, sad, and sickly man a burden which it seems he is utterly unable to support.

I think I have said all that I had intended. I append a selection of cases. Since I have penned the account of these I have had many others equally interesting, but they will suffice.

And now I must apologise to the editor of this journal and to my readers for the extreme length to which my remarks have extended. I am sure I never thought they could have gone on the sixth part of the distance; but as one looks into a subject one sees very far, if not very clearly. My vision has apparently extended sufficiently. I can only hope that my remarks are not without some small profit.

(To be continued.)

NOTE ON "DELHI BOIL."

By NATHANIEL ALCOCK,
Assist.-Surg. 35th Regiment.

With reference to the abbreviated report, in the *Medical Times and Gazette* of the 22nd ult., of the papers of Staff Assistant-Surgeon Fleming, and Staff Surgeon-Major Smith, which were published in the *Army Medical Report* for 1868, and assuming a very marked analogy, if not an actual identity, between the Delhi boil and Mooltan sore, I would, to assist investigation, reiterate the following facts in connexion with the latter, already stated in the *Medical Times and Gazette*, April 9, which, to my mind, go far to prove that these sores cannot be due to distomata, or any other local agency, but must arise from constitutional causes, viz:—Undeniable Mooltan sores became developed in several cases on our voyage home (the regiment having left Mooltan on November 1, and sailed from Bombay on December 9), and in one or two instances appeared after our arrival in England (January 17), thus necessitating a period of incubation for the local source of the disease of two months and a half at the very least; but, on the other hand, I have more than once seen accidental abrasions become specific sores within a fortnight in subjects suffering from climatic cachexia. Again, the freest use of nitric acid, or potassa fusa, will not reduce the sore to the condition of a simple ulcer. Nor does this sore appear to prevail amongst water-carriers. On the contrary, those long resident in places peculiar to it seem to acquire an immunity from it.

Bradford.

ON THE USE OF VINUM ALOES IN ULCERATION.

By HENRY FREDERICK NATHAN,
Senior Assistant-Surgeon of the Royal Naval Hospital, Haslar.

A most valuable remedy for any kind of ulcer which has once assumed the aspect known as "healthy," and also for weak ulcers, exists in the wine of aloes of the Pharmacopœia. It is almost superfluous to mention that the use of wine as an application to ulcers is of very ancient date, the fact being well known. It is highly extolled by Galen, in his "Methodi Medendi," Lib. 3; Hippocrates, in his discourse "Περι Ελκων," frequently alludes to it; in our Saviour's parable of the good Samaritan, he is represented as pouring into the injured man's wounds oil and wine; while, more recently, Dr. Hosack, an American author, bears testimony as to the local application of wine. With regard to aloes, it is mentioned by Aëtius as a stimulant when applied externally to tardy ulcers; Rhases employed aloes in the treatment of sores, as did also the Æginetan Paulus. Lately also, M. Delioux (*Bull. de Thérap.*, vol lxvi.) recommends the tincture of aloes in the treatment of wounds as based on veterinary practice. The good effect of the vinum aloes must not be ascribed only to the stimulating properties of the wine—that the aloes has also a share in it may be proved by dressing two ulcers of the same character, occurring in the same person, the one with wine, the other with wine of aloes, when the latter will be found greatly superior. The preparation should be applied on lint covered with oil silk, and each dressing should be permitted to remain on for twenty-four hours; its primary effect is to increase the discharge, which may be gently sponged from the surrounding integument, taking care never to touch the surface of the ulcer; and during the healing process no other applications should be employed.

I have made use of this method of treatment in some hundreds of cases with marked success, and it has almost invariably produced rapid cicatrisation, in cases where most of the ordinary applications have either been very tardy in their effects, or else have failed.

CASE OF EXTERNAL VERSION AFTER COMPLETE DISCHARGE OF THE LIQUOR AMNII.

By WILLIAM ROBERT WOODMAN, M.D.

Mrs. E. R., aged 41, wife of a clerk; married fourteen years; has had seven children—three girls, followed by four boys.

On March 16, 1868, the husband came for me in a great hurry. On arriving at the house, at 9.50 p.m., I made examination, and found a hand presenting. The bed was deluged with liq. amnii, and on inquiry I found that "the waters had broken" just before sending for me. The patient was very stout, and largely developed, and the abdomen was large and flaccid. Under these circumstances, I thought I would try external version, although, owing to the previous and complete discharge of the liq. amnii, it was not very likely to succeed; but its great advantage was that no harm could accrue from its trial, and the old method could be resorted to in case of failure. I therefore at once proceeded to turn by external means. With two fingers of one hand in contact with the presenting hand of the child, and the other engaged in manipulating from without the child in utero, I had the satisfaction of feeling the presenting hand gradually glide away upwards, and its place taken by a foot. This I speedily captured, and brought down, when the knee of the other leg was felt; this occupied exactly five minutes. Another five minutes was spent in bringing down the second foot, using my finger as a hook; and in five minutes more I rapidly cleared the head of a very fine male child, using two of my fingers as a vectis, and the placenta followed immediately. The uterus contracted firmly under my hand, after throwing off a few clots of coagulated blood. I carefully bound up the abdomen, placing a moderate compress under the bandage, and gave a full dose of Battley's liquor opii, combined with ammonia and chloric ether. The recovery of the patient followed without a single drawback, and, to use her own expression, she had a quicker and better "getting up" than she had ever had before.

The remarkable part of this case is the ease with which the turning was effected after the discharge of the whole of the

liq. amnii, and the unusually speedy recovery. I had attended her in several of her former confinements, but since this time she has not needed my services. I was induced to try external version in this case owing to the soft and yielding character of the uterus, the flaccidity of the abdominal parietes, and from having had the advantage of personal instruction from Dr. Braxton Hicks, the inventor of this splendid operation (when I had occasion to call him in to a very dangerous case of placenta prævia, in which the method proved most successful, and premature labour was induced thereby; and, after bringing down one foot and waiting, a living child was evolved in little more than two hours).

Vittoria Villa, Stoke Newington-road.

CASES OF

ELEPHANTIASIS OF THE SCROTUM

IN THE MEDICAL COLLEGE HOSPITAL, CALCUTTA, FROM 1866 TO FEBRUARY, 1870.

By J. FAYRER, M.D., C.S.I., F.R.S.E.,

Professor of Surgery and Senior Surgeon, Medical College Hospital, Calcutta.

1866.

Case 1.—S. D., a Hindoo harness-maker, aged 50, resident of Entally, Calcutta, admitted December 19, 1865, with a tumour of seven years' standing. Operated on January 2, 1866. The tumour weighed 3 lb. 13 oz. Died of tetanus on January 18, 1866. There was hydrocele of the right side, and the tunica vaginalis was thickened and cartilaginous. No post-mortem examination.

Case 2.—B., a Hindoo shoemaker, of Bhowanipore, aged 32, admitted January 2, 1866, with a tumour of twelve years' standing. It weighed 8 lb. after operation, which was performed on January 4, 1866. There was hydrocele on both sides, and the sacs were thickened and cartilaginous. He had elephantiasis of the left leg, and had had syphilis. Discharged cured March 11, 1866.

Case 3.—B., a Hindoo harness-maker, aged 36, of Toltollah, Calcutta, admitted December 20, 1865, with a tumour of ten years' standing. Has had syphilis, and was subject to elephantoid fever. Was operated on on January 4, 1866. The tumour weighed 4 lb. There was no hydrocele; testicles healthy. Discharged cured March 19, 1866.

Case 4.—K. C., a Hindoo labourer, aged 32, of Collinga, Calcutta, admitted January 2, 1866, with a tumour of six years' standing. There was no elephantiasis of the legs. After operation on January 8, 1866, the tumour weighed 22 lb. There was hydrocele of the right sac; testicles were healthy. Died of pyæmia on January 20, 1866. No post-mortem permitted.

Case 5.—I., Hindoo, aged 25, of Bally, admitted October 16, 1865, with a tumour of two months' growth. No elephantiasis of legs nor hydrocele. Has never had elephantoid fever. Has had syphilis. By the application of biniodide of mercury and the internal administration of iodine, the scrotum for a time decreased in size, but as no further improvement took place, the remainder of the growth was removed by operation on January 18, 1866. He was discharged cured on April 7, 1866.

Case 6.—B. M. G., a Hindoo cooly, aged 40, of Gaitha, admitted January 22, 1866, with a tumour of four years' growth, which weighed 1 lb. 10 oz. after removal on January 24, 1866. There was hydrocele of the right side, no elephantiasis of legs. Has had syphilis. Had elephantoid fever. The testicles were healthy. Died of pyæmia on February 23, 1866. No post-mortem permitted.

Case 7.—G. S., a Mahomedan farmer, aged 50, of Burdwan, admitted January 25, 1866, with a tumour of twenty-five years' growth, which weighed 4 lb. after removal on February 1, 1866. There was double hydrocele, but no elephantiasis of the legs. Has had syphilis; was subject to elephantoid fever. Died on February 9, 1866. Post-mortem:—No pyæmic patch in viscera; fibrinous clot in the right side of the heart, extending up to the minute ramifications of the pulmonary artery. Pulmonary embolism, fibrinous clot in right side of heart.

Case 8.—M. C., a Hindoo shopkeeper, aged 28, of Sankari Tollah, Calcutta, admitted April 27, 1866, with a tumour of two years' growth, which weighed 2 lb. 12 oz. after removal on May 1, 1866. There was double hydrocele, but no elephantiasis of the legs. Was subject to elephantoid fever, and has had syphilis. The testicles were quite healthy. Discharged cured July 8, 1866.

Case 9.—R. B, an East Indian, aged 37, of Mulinga, Calcutta, admitted May 18, 1866, with a tumour of seven years' growth, which weighed 3 lb. 10 oz. after operation on May 22, 1866. There was hydrocele on both sides, but no elephantiasis of the legs. No history of elephantoid fever, but has had syphilis. The testicles were healthy. Discharged cured on September 15, 1866.

Case 10.—B., a Hindoo washerman, aged 60, of Bhowanipore, admitted June 8, 1866, with a tumour of twenty years' duration, which weighed 2 lb. 12 oz. after operation on June 19, 1866. There was hæmatocele of the right side, but no elephantiasis of the legs. Has had elephantoid fever and syphilis. The testicles were healthy. Discharged cured, August 30, 1866.

Case 11.—N., a Hindoo, aged 25, of Khalashi Tollah (Calcutta). Admitted June 25, 1866, with a tumour of six years' duration, which weighed 3 lb. after operation on July 5, 1866. There was no hydrocele. Had elephantiasis of the right leg. Was subject to elephantoid fever, and had had syphilis. The testicles were healthy, and he was discharged cured on August 30, 1866.

Case 12.—B. C. G., a Brahmin, aged 40, of Nuddea. Admitted June 27, 1866, with a tumour of about six months' duration, complicated with stricture of the urethra, and urinary fistula. The tumour weighed 1 lb. after operation on August 17, 1866. It was a very vascular one. There was neither elephantiasis of the legs, hydrocele, elephantoid fever, nor syphilis, but the left testicle was found to be atrophied. Discharged cured, October 15, 1866.

Case 13.—G., a Mahomedan tailor, age 28, of Barrackpore. Admitted August 15, 1866, with a tumour of one year's growth, which weighed 2 lb. 10 oz. after removal on August 24, 1866. There was left hydrocele, but no elephantiasis of the legs. Was subject to elephantoid fever, but has not had syphilis. The testicles were healthy, and he was discharged cured on October 23, 1866.

Case 14.—J., a Hindoo, age 45, of Calcutta. Admitted August 24, 1866, with a tumour of two years' duration, which weighed 3 lb. after removal on September 3, 1866. There was hydrocele of the left side, but no elephantiasis of the legs. Has had elephantoid fever, but never had syphilis. The testicles were healthy. He sank after the operation, and died of pulmonary embolism on September 10, 1866. Post-mortem:—Decolorised clot from venæ cavæ, through the right side of the heart, into the branches of 'pulmonary artery; some in the pulmonary veins also, and another in the aorta, attached to its wall, and extending up in a tapering form to near the opening of the left subclavian. Other organs healthy, excepting the kidneys, which were pale and flabby.

Case 15.—S. C. G., a Hindoo cooly, age 50, of Serampore. Admitted August 13, 1866, with a tumour of two months' growth, which weighed 2 lb. 15 oz. after operation on September 3, 1866. There was hæmatocele on the left side, and hydrocele on the right, but there was no elephantiasis elsewhere. Had had syphilis, but there was no history of elephantoid fever. The testicles were healthy. Discharged cured, November 15, 1866.

Case 16.—H., a Hindoo shopkeeper, age 31, of Chandney (Calcutta). Admitted August 24, 1866, with a tumour of four years' duration. Had been tapped two years ago, but it increased since. It weighed 2 lb. 10 oz. after operation, on September 4, 1866. There was hydrocele of the right side, but no elephantiasis elsewhere. Has had syphilis. No regular elephantoid fever. The testicles were healthy. His father suffered from the disease. Discharged cured, October 29, 1866.

1867.

Case 1.—G., a Hindoo washerman, aged 30, of Potuldangah (Calcutta), admitted January 2, 1867, with a tumour of three years' growth, which weighed 1 lb. 8 oz. after operation on January 16, 1867. There was hydrocele on both sides. Never had syphilis, but had elephantoid fever. The testicles were preserved. He came in very low, and was threatened with pyæmia, but recovered and went out cured on April 29, 1867.

Case 2.—R., a Hindoo sweeper, aged 60, of Methibogan (Calcutta), admitted February 15, 1867, with a tumour of ten years' growth, which weighed 11 lb. after operation on February 20, 1867. There was a small hydrocele on either side, no other elephantiasis; no history of syphilis, but had elephantoid fever. The testicles were healthy; but he died of fatty degeneration of his heart on March 23, 1867. The wound was healing. Post-mortem examination:—Fatty flabby heart—walls of the right ventricle thin. A firm white clot in the right ventricle passing for some distance into the pulmonary arteries.

Case 3.—K. M., a Hindoo farmer, aged 45, of Moorshedabad, admitted February 20, 1867, with a tumour of four years' growth, which weighed 12 lb. 11 oz. after operation on February 22, 1867. There was no hydrocele or elephantiasis of leg; had elephantoid fever; never had syphilis. Testicles were healthy. Discharged cured on April 24, 1867.

Case 4.—G. C., a Hindoo barber, aged 25, of Calcutta, admitted April 15, 1867, with a tumour of five years' duration, which had once been tapped on April 17, 1867, and 16 oz. of fluid withdrawn from the left side. The tumour weighed 4 lb. 11 oz. after operation on May 3, 1867. There was still some hydrocele in the left side. Died of pyæmia on May 12, 1867, with puriform effusion under the peritoneum. Post-mortem examination:—Lower lobes of both lungs consolidated. Lymphy deposit at base of right lung; some fluid in the right pleura; heart contracted, contained no clots, but only frothy blood; sub-peritoneal purulent collection down to the testicles and the stomach adherent to colon and the posterior wall of abdomen by thick adhesions.

Case 5.—S. B., a Mahomedan, aged 25, of Jamulpore, admitted May 22, 1867, with a rapidly growing painful serotal tumour of one month's duration, which weighed 1 lb. 5½ oz. after operation on June 4, 1867. There was double hydrocele but no elephantiasis of leg; was subject to elephantoid fever, but never had syphilis. The testicles were healthy. Discharged cured October 2, 1867.

Case 6.—B., a Hindoo labourer, aged 35, of Calcutta, admitted July 6, 1867, with a tumour of ten years' growth, beginning in the left side. The tumour weighed 1 lb. 4 oz. after removal on August 6, 1867. There was hydrocele on the left side, but no elephantiasis of leg; was subject to elephantoid fever, but never had syphilis. Testicles were healthy. Discharged cured, November 4, 1867.

Case 7.—S. K., of Calcutta, aged 40, admitted June 23, 1867, with a tumour of five years' growth, which weighed 3 lb. 5 oz. after operation on September 4, 1867. There was neither hydrocele nor elephantiasis of leg; was subject to elephantoid fever; no history of syphilis. He was fat, and probably had fatty heart. The testicles were preserved, and he was discharged cured, on January 12, 1868.

Case 8.—K. N., aged 23, a Hindoo native Doctor, of Burdwan, admitted August 28, 1867, with a tumour of five years' growth, which weighed 3 lb. after operation on September 23, 1867. There was double hydrocele, but no other elephantiasis, no history of syphilis or elephantoid fever. The testicles were healthy, and he was discharged cured, on November 24, 1867.

Case 9.—T. N. D., a Hindoo writer of Agurparah, aged 27, admitted October 11, 1867, with a tumour of seven years' growth, which weighed 8 lb. 5 oz. after operation on October 28, 1867. There was hydrocele of the right side, but no elephantiasis elsewhere. No history of syphilis, but was subject to elephantoid fever. Testicles were healthy, and he was discharged cured on January 12, 1868.

Case 10.—D., a Mahomedan tailor, aged 30, of Calcutta, admitted July 7, 1867, with a tumour of eight years' standing, which weighed 8 lb. 10 oz. after operation on November 16, 1867. He was suffering from enlarged liver and chronic bronchitis, and he died of pulmonary embolism on November 24, 1867. No post-mortem allowed.

Case 11.—H., a Mahomedan cook, of Colinga (Calcutta), aged 36, admitted November 6, 1867, with a tumour of ten years' growth, which weighed 8 lb. 14 oz. after operation on December 4, 1867. There was double hydrocele and elephantiasis of both legs. Was subject to elephantoid fever, but there was no history of syphilis. The testicles were healthy, and he died of diarrhœa and exhaustion on December 22, 1867. No post-mortem allowed.

Case 12.—M. S., a Hindoo, aged 35, of Narkuldangah (Calcutta), admitted October 28, 1867, with a tumour of twenty years' duration, which weighed 2 lb. 12 oz. after operation on December 5, 1867. There was double hydrocele but no elephantiasis of legs. Was subject to elephantoid fever, but there was no history of syphilis. The testicles were healthy. Died of tetanus on December 17, 1867. No post-mortem examination.

Case 13.—J. D., a Hindoo, aged 25, of Chorebogan (Calcutta), admitted December 20, 1867, with a tumour of seven years' growth, which weighed 2 lb. 3 oz. after operation on December 26, 1867. There was hydrocele on the right side, but no elephantiasis elsewhere. Was subject to elephantoid fever, and had had syphilis. The testicles were healthy, and he was discharged cured on September 25, 1868.

1868.

Case 1.—O., a Mahomedan butcher, aged 40, of Koraya (Calcutta), admitted December 20, 1867, with a tumour of ten years' growth, which weighed 2 lb. 2 oz. after operation on January 13, 1868. There was double hydrocele, but no elephantiasis of legs; was subject to elephantoid fever, but there was no history of syphilis. The testicles were healthy. He was discharged cured on May 11, 1868.

Case 2.—R., a Brahmin, aged 33, of Raneegunge, admitted February 24, 1868, with a tumour of eight years' duration, which weighed 15 lb. 15 oz. after operation on March 2, 1868. There was double hydrocele, but no other elephantiasis; was subject to elephantoid fever; no history of syphilis. The testicles were healthy, and he was discharged cured on September 8, 1868.

Case 3.—T. W., an East Indian, aged 30, of Calcutta, admitted February 17, 1868, with a tumour of two years' duration, which weighed 1 lb. 13 oz. after operation, on March 16, 1868. There was hydrocele of the left side (tapped several times before), but no other elephantiasis; was subject to elephantoid fever, but had no history of syphilis. The testicles were healthy, and he was discharged cured on August 20, 1868.

Case 4.—P. C. G., a Hindoo boatman, aged 25, of Konenuggur, admitted March 15, 1868, with a tumour of a year's standing, which was removed on March 23, 1868. There was hydrocele of the left side, but no other elephantiasis; was subject to elephantoid fever, but had no history of syphilis. Testicles were healthy, and he was discharged cured on September 28, 1868.

Case 5.—N. C., a Hindoo farmer, aged 22, of Nuddea, admitted February 18, 1868, with a tumour of four years' duration, which weighed 14 oz. after operation, on April 14, 1868. There was hydrocele on both sides, but no other elephantiasis; no elephantoid fever, nor syphilis. Testicles healthy. Discharged cured on September 2, 1868.

Case 6.—S. M., a Mahomedan sailor, aged 25, of Madras, admitted July 3, 1868, with a tumour of four or five weeks duration, which weighed 2 lb. 8 oz. after operation, on July 6, 1868. There was no hydrocele nor elephantiasis of legs; had had syphilis, but no elephantoid fever. Testicles were healthy, and he was discharged cured on November 26, 1868.

Case 7.—T. H., a Mahomedan constable, aged 28, of Mendibagan (Calcutta), admitted on July 24, 1868, with a tumour of five years' growth, which weighed 2 lb. 1 oz. after operation, on July 29, 1868. There was hydrocele of left side, but no elephantiasis of leg; no history of syphilis nor elephantoid fever. Testicles were healthy, and he was discharged cured on January 5, 1869.

Case 8.—J. N., a Hindoo weaver, aged 28, of Burra Bazar (Calcutta), admitted June 1, 1868, with a tumour of one year and a half's duration, which weighed 3 lb. 10 oz. after operation, under bichloride of methylene, on August 24, 1868. There was hydrocele of the left side, and the feet were œdematous. Was subject to elephantoid fever, but there was no history of syphilis. Testicles were healthy, and he was discharged cured on February 23, 1869.

Case 9.—B. C., a Hindoo farmer, aged 30, of Tabrapur, admitted on November 4, 1868, with a tumour of three years' duration, which weighed 7 lb. 4 oz. after operation, on November 10, 1868. There was hydrocele of the right side, but no elephantiasis of legs; had elephantoid fever; had had syphilis. The testicles were healthy, and he was discharged cured on March 15, 1869.

Case 10.—P. C., a Hindoo printer, aged 32, of Calcutta, admitted September 27, 1868, with a tumour of five years' growth, which weighed 3 lb. after operation, on October 8, 1868. There was hydrocele on the left side. Discharged cured February 23, 1869.

Case 11.—K. R., a Hindoo farmer, aged 34, of Bancoorah, admitted November 9, 1868, with a tumour of seven years' duration, which weighed 9 lb. 5 oz. after operation, on November 17, 1868. Had had hydrocele; no elephantiasis of legs; had had elephantoid fever, but no history of syphilis. Testicles were healthy. Discharged cured on March 15, 1869.

Case 12.—R. S. R., a Hindoo farmer, aged 32, of Bancoorah, admitted November 9, 1868, with a tumour of ten years' duration, which weighed 5 lb. 9 oz. after removal, on November 23, 1868. There was no hydrocele; had had elephantoid fever. Testicles were healthy, and he was discharged cured on March 15, 1869.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CASES OF LITHOTRITY.

(Under the care of Sir HENRY THOMPSON.)

THERE are at the present time five cases of stone in the bladder in Sir H. Thompson's wards at this Hospital, besides some very interesting cases of stricture. We shall hope to refer to the stricture patients on an early occasion, and shall confine ourselves now to a brief account of the stone cases. All of these men have been subjected to lithotrity, and some present features of special interest.

Case 1.—*Multiple Uric Acid Calculi in an Old Man—Fifteen Crushings already performed.*

Richard C., a carpenter, aged 72, a healthy, active man, was admitted on August 13, 1870, with this history:—He had never suffered from gout. Four years ago he passed a quantity of blood with his water, and he dates his first symptoms from that time. For three years he has complained of too frequent desire to pass water, which for some months past has been attended with severe pain, rendered worse by the least exertion. Eighteen months ago he passed a small stone from his bladder, and again, a few days since, another small stone passed into the urethra, and lodged there until it was pushed back into the bladder by efforts made to relieve him. Meanwhile, the old man has been getting steadily weaker, worn out by the constant irritation.

On admission, careful sounding discovered some stones in the bladder—probably two or three, and of small size. The prostate was slightly enlarged, so that he could not completely empty his bladder, and the urine was alkaline, turbid with pus and mucus, containing one-eighth of albumen when boiled, and showing under the microscope abundant blood and pus corpuscles, but no renal elements.

On August 16 the first crushing was performed, the stone being readily caught, and the fragments found to consist of urie acid. Some bleeding attended the passage of the instrument, and the operation was followed by some little febrile excitement and frequent micturition.

On August 19 the crushing was repeated, the lithotrite bringing away a considerable amount of *débris*.

On August 23, Mr Berkeley Hill, under whose care the patient had passed for a while, washed out the bladder with Clover's apparatus, removing a large thimbleful of fragments, some of considerable size, and this washing was repeated three days later. By this time the bladder was less irritable, and the operation caused but little general disturbance. Since then, through September and October, the crushing has been repeated every few days, so that he has now been operated upon fifteen times, and had, when we saw him (November 5), a large pill-box full of fragments, and Sir Henry thinks that he has still some more to come away.

Case 2.—*Recurrent Uric Acid Calculus after more than Twelve Months' freedom from Symptoms, the former Stone having been Crushed in* 1868.

Wm. C., a farmer, aged 63, was admitted on November 4, 1870. He had long been subject both to gout and rheumatism. After suffering for six months from symptoms of vesical calculus, he went to Sir H. Thompson in June, 1868, and a stone was then crushed. For the next six months he suffered from occasional pricking pains in the urethra, but afterwards enjoyed complete relief from his symptoms until eight months ago, when the old pains and irritation returned. In July, 1870, he came up to town again, and, being told by Sir Henry that he had a stone in his bladder again, he came to the Hospital. On the day of his admission he was sounded, a stone felt, and crushed at once, many uric acid fragments coming away in the lithotrite. From the nature of the calculus, and the history of the symptoms, Sir Henry was sure that this was not a case of recurrence due to a fragment left after the former attack, but that it was altogether a new formation.

Case 3.—*Multiple Uric Acid Calculi—Seven Crushings already performed.*

E. L., a labourer, aged 54, was admitted early in October, 1870. As the man is a native of Wales, and can speak no English, no history could be obtained from him. All that we could make out was that on October 11 Sir H. Thompson sounded him, found a stone, and crushed it. The operation was repeated on October 14, 19, 25, 28, and on November 1. On November 4, Sir Henry discovered another large stone, with a diameter of an inch and a quarter, which he crushed. The fragments seemed to be of urie acid.

Case 4.—*Multiple Phosphatic Calculi in a Young Man the Subject of Renal Disease—Lithotrity twice performed.*

J. P., aged 23, was sent up from Aylesbury on October 10, 1870. He was a pale, unhealthy-looking young man, passing water some seven or eight times in the day, and gave the following history of his illness:—

After a long walk taken three years ago, he felt a sudden severe pain in the right loin, accompanied by vomiting. The pain passed away after two hours, leaving no other symptom, but it occasionally recurred with varying intensity. About May, 1869, he began to be troubled with micturition every two hours, but without pain. In the following July he passed with his water some clotted blood, and now the old pain returned with each micturition. In October, 1869, he voided twenty small stones, the largest less than a split pea, and then for some weeks his symptoms passed off, and he did not complain again until Christmas, 1869, when he passed a stone as large as a horse-bean. This again was followed by an interval of relief, but in April, 1870, the trouble returned, and has persisted since.

In the course of some clinical remarks upon this case, Sir H. Thompson stated that he regarded as an axiom the rule that when a young man, with no stricture, became the subject of calculus, the stone was of renal and not of vesical formation. In this case the symptoms of passage of renal calculus were only marked once, but as a rule in these cases, after the first one or two passages down the ureter the canal seems to become accustomed to it, and subsequent passages are hardly felt at all, the only symptoms being the increased frequency of micturition, with blood after riding, etc. This patient being the subject of renal disease, could certainly not be cut with safety. Nor, indeed, was it a favourable case for lithotrity—and, as a matter of fact, each crushing was followed by rigors, and considerable febrile reaction—but as it seemed the only course open, Sir Henry did not hesitate to employ this treatment. The man was operated upon on October 14 and 19, and already a good deal of phosphatic fragments have been removed, the patient doing, so far, very well.

Case 5.—*Recurrent Calculus Eight Years after Lithotomy, complicated with Stricture of the Urethra—Lithotrity.*

John P., aged 48, was sent up from near Southampton on October 4, 1870. The man was in a low condition, pale, wasted, and with health broken by long suffering. He had been the subject of stricture of the urethra for twenty years. Eight years ago he was cut for stone in Jersey, and again had a stone crushed in his urethra nine months ago. He began to suffer from the present stone twelve months since, and since then he had been under the care of six Surgeons, none of whom had been able to get a sound into his bladder. When admitted he was passing water generally every ten minutes, with an occasional respite of a couple of hours, clots of blood sometimes passing with the water. He could himself work a No. 7 soft instrument into his bladder. Sir Henry tied a small gum catheter in, and kept it there for four or five days, and then, having secured a passage of about 13 to work in, introduced a lithotrite on October 19, and crushed a stone. The catheter was introduced again to keep the passage open, and on October 25 and 28 the same manœuvre was repeated. Two more crushings—under chloroform—on November 1 and November 4, were needed to clear away all the fragments, and the man now believes that all the stone is gone, referring the remaining symptoms to the stricture.

This case we have placed last in the list, as it seems to us of special interest. We are not aware of any other instance in which lithotrity has been performed on a patient the subject of stricture of the urethra. Sir H. Thompson has done this in three or four cases in private practice, but this is the first Hospital case in which he has attempted it, and it seems likely to be attended with good results.

KING'S COLLEGE HOSPITAL.

MALIGNANT TUMOUR OF THIGH—AMPUTATION—RECOVERY.

(Under the care of Mr. HENRY SMITH.)

THE following is an interesting example of the rapid formation

of a malignant tumour, and of the difficulties which beset its diagnosis. The youthfulness of the patient was an element in the difficulty; and although she was pallid and weak, yet she had not that peculiarly marked appearance which is seen in connexion with rapidly-growing malignant disorders. The pain, moreover, in the affected part, although at times severe, was not comparable with the rapidity of its growth, and this fact rendered it difficult to come to a conclusion about its real nature. Mr. Smith, however, as he stated at the time of the operation, was very much influenced in his opinion about the case by his having seen the mother of the girl, who accompanied her to the Hospital. She presented the appearance of one suffering from malignant disease, and had informed Mr. Smith that she was being treated elsewhere for a tumour of the liver, probably of a cancerous nature. The girl was allowed to remain under inspection for ten days, and during this period the facilities for a correct diagnosis were rendered greater from observing that the swelling was decidedly and somewhat rapidly increasing in size, and yet not getting softer. The only other morbid condition for which it could possibly be mistaken was a chronic abscess, and although the evidences in favour of this were daily growing feebler, Mr. Smith did not employ the amputating knife until he had freely punctured the swelling, when it was at once ascertained that the disease was of a malignant character, as had been supposed.

Lydia H., aged 20, was admitted into King's College Hospital on August 31. The patient stated that six weeks only previous to admission she felt a pain in the lower part of the thigh, and two weeks afterwards she noticed a swelling there, which has since rapidly increased. There was no history of a blow. Her health had always been delicate.

On examination there was seen a hard, uniformly smooth swelling, involving the lower third of the left thigh, not implicating, but closely encroaching on, the knee-joint. It was perfectly immovable, and seemed gradually and distinctly to shelve off into the bone. It measured sixteen inches in circumference and six inches in length. The veins over the swelling presented a turgid aspect. The glands in the groin were not enlarged. Mr. Henry Smith stated it as his opinion that the tumour was of a malignant character, although possibly it might turn out to be a chronic abscess; and, under these circumstances, he thought it desirable to watch the case for a few days before interfering.

September 10.—Since the admission the tumour has gradually become larger and more painful, but not at all inflamed or soft; therefore Mr. Smith determined to remove the girl into the theatre; and accordingly, after chloroform had been exhibited, he made a very free incision into the centre of the swelling, and it was at once ascertained what the nature of the disease was, for on introducing the finger into the opening it came in contact with bare bone, and a hæmatoid mass of tissue protruded. The limb was at once removed at the middle third of the thigh by the flap operation. The patient rapidly improved after the operation, and soon became convalescent.

On examination of the diseased parts, a longitudinal section through the bone having been previously made, a very beautiful specimen of what has been termed fungous hæmatodes, in its earlier stage, was seen to be involving the lower part of the thigh: it was found to spring from the bone just above the condyle of the femur in front, and surrounded it to the extent of some inches. Internally and posteriorly the femur was rendered quite bare and rough. Just opposite the centre of the tumour the structure of the femur itself was found, on section, to be quite dense and eburnated, there being no medullary canal for a space of nearly two inches. Some portions of the tumour were found to be more softened and disintegrated than the others.

The Countess Bismarck and the Doctor's Bill.—Some time before the war broke out, a son of Count Bismarck, a student at Bonn, received from a rapier thrust an injury to the head, which it was thought must prove fatal. His parents were telegraphed for, and, after passing some weeks at the bedside of her son, the Countess of Bismarck, on taking her leave, did not forget his Doctor, but sent him the magnificent sum of 6 Frederics, equivalent to 127 francs 25 centimes. The Doctor felt somewhat astounded, seeing that he had paid his patient 160 visits, some of these taking up several hours. He thought it best to present his own account for payment, charging 160 thalers, at the rate of a thaler, 3 francs 75 centimes, per visit, or a total of 600 francs—an amount which must surely be considered moderate enough!—*Lyon Médical*, October 9.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 12, 1870.

THE AMALGAMATION SCHEME.

In accordance with one of the by-laws of the Society.(a) a second special general meeting of the Royal Medical and Chirurgical Society was held, after the ordinary meeting, on Tuesday last, for the purpose of "proposing for confirmation" the motion carried at the special general meeting held on October 25. It will be remembered that that motion—which was, "That the Council be requested to consider whether, while maintaining the charter and constitution of the Royal Medical and Chirurgical Society, it may be possible to obtain a more complete co-operation with the Pathological, Clinical, Obstetrical, and Epidemiological, or other societies, for the promotion of Medical science"—had been carried by a large majority, as an amendment to a resolution for the formation of a Royal Society of Medicine by the amalgamation of the Royal Medical and Chirurgical, the Pathological, Clinical, and Epidemiological Societies. It seemed, at first sight, a pity that the question should be again brought forward; but, as the motion thus carried had not been previously published to the Fellows of the Society, it could not be binding on the Society or the Council until it had been confirmed by a second special general meeting, summoned for that express purpose. And it is well, on the whole, that such a necessity of confirmation by a second meeting existed, for it scatters to the winds all allegations or insinuations that Mr. Paget's motion was only carried, at the first meeting, by surprise: that it did not represent really the will of the Society, but was merely a snatched victory by an accidental majority, a fortuitous concurrence of defeated minorities, such as could never again be united, and so on. The meeting was a very full one—more than ninety Fellows, we believe, having been present at one part of the proceedings, and seventy-seven having voted; and it cannot be supposed that any Fellow strongly opposed to the motion was willingly absent. Under the firm ruling and guidance of the President, the debate was kept solely and closely to the subject before the meeting; and, after about half an hour's discussion, the motion of Mr. Paget and Dr. Quain was confirmed by a majority of forty-one to thirty-six. It may be said that this is but a small majority, but it is more than enough. Besides legally confirming the vote of the previous meeting, it most fully justifies the reasons given for, and the wisdom of, that vote. It proves that, however desirous the society as a body may have been to work for the formation of a grand, large, catholic Society of Medicine, and however ready they may have been to give up their independent exist-

(a) Chapter xvii., section v.

ence, their honoured name, and their splendid library for such a really great object, yet the larger half, at least, of the Fellows are not willing to give up all this for a smaller object—for the sake of forming only an imperfect and incomplete new society.

It was a grand and fascinating idea that all the chief Medical societies of the metropolis should be amalgamated into one large central academy or society, having sections representing all the branches of Medical knowledge and practice, and able at any time to possess all the energy, knowledge, and skill of all its sections for the elucidation of any problem in Medical science; it was, indeed, a very fair and stately vision, the realisation of which would have been well worth all the sacrifice, all the abnegation of self that it could have demanded from any or all of the existing societies, and we regret, as much as anyone can, to see it fade away, even for a time. But the existing societies, and most of all the Medical and Chirurgical Society, had a right to demand that there should be at least a fair and good prospect of sterling success before they gave up present vitality and prosperity to begin the new phase of existence; and the recent decision of the Medical and Chirurgical Society means that the Fellows do not believe that there is now such chance of success as would justify their proceeding with the scheme they had proposed to the sister societies.

Indeed, one of the very first and chief conditions of good speed and fortune in carrying out the proposed scheme was wantiug. Entire and absolute unanimity of opinion was not to be expected, and was not requisite; but, to give a solid prospect of real success, it was necessary that there should be at least a very largely preponderating amount of hearty, not cold or lukewarm, assent and agreement. What was the case? While from the first there was a great degree of opposition, and in some—at any rate, of the finally assenting societies—there were powerful dissenting minorities, as time went on and the scheme was more and more examined and discussed, the opposition, instead of lessening, strengthened and widened. We can only explain the fact of the Council having sent to the Royal Medical and Chirurgical Society such a very bald and meagre report, without any hint or suggestion of further proceedings with the scheme, by supposing that in the Council itself there were great differences of opinion as to the advisability of any continued attempt to carry it out. And though Mr. Paget and Dr. Quain, the mover and seconder of the motion carried on October 25, and confirmed on Tuesday last, did not act on those occasions in any official capacity, it is impossible not to attach considerable significance to the fact that they are the Presidents of the two chief assenting societies, and were members—and, if we are not much mistaken, active and diligent members—of the Committee of Delegates. We do not intend, however, to consider here all the *pros* and *cons* for the course that has been pursued—our readers can study these in our reports of the debates; we will only observe further that we cannot at all agree with the remark that it would be undignified and unworthy on the part of the Royal Medical and Chirurgical Society to drop or throw over their amalgamation scheme now that they had persisted with it for so long, and they ought rather to wait for such a course of action to be adopted by some other Society. It seems to us that the Society which originated the scheme acts with much truer dignity in being the first to give up its plan as soon as it is convinced that circumstances are against its successful prosecution, than it would in throwing the burden of acting as executioner on any of its younger sisters.

As we have said before, we regret that the hope of the formation of a great Royal Society of Medicine must be for a time given up, but we believe that no little good must arise from the open manifestation and repeated expression of the fact that the great desirability of such a society is widely entertained; and we believe that men will be led thereby to more than ever work for, and look to, that end. We are sure that the Profession fully and gratefully recognise the good work done by many of their brethren who have so freely given time and labour to promote the dropped scheme; and we are glad that the subject is kept before the Council of the Medical and Chirurgical Society by Mr. Paget's motion.

Various plans for bringing the Medical societies together in their work will doubtless be laid before the Council, and among them the proposition to which we alluded last week. Supposing the societies could be all brought together under one roof, each possessing its own apartment, retaining its individuality, and managing its own affairs, but each admitting the Fellows or Members of the rest freely to its meetings, and there being a common reading-room open to all the societies alike, we think a bond of union, a community of interests, and a degree of frequent and easy intercourse would be established that might well lead on to a still closer and more fruitful amalgamation.

FLOWER'S "OSTEOLOGY OF MAMMALIA."

Mr. Flower has recently published a work to which we assign some importance, not merely because it adds one to the number of useful scientific books of education, but because it indicates, as we hope, an expansion and improvement in the manner of studying one of the most important branches of Medical education.

The study of anatomy as generally conducted in our Medical schools has certain merits of no mean order. If a schoolboy is supposed to become imbued with habits of steady, plodding industry, and to learn to look upon no study as too austere, repulsive, or intricate, because some "*Plagosus Orbilius*" has "grounded" him thoroughly in his Latin accidence, and has taught him how to sit and fag at the interpretation of Latin authors whose subjects are of necessity dry and distasteful to a boy, so does the young student of Medicine get an invaluable discipline in careful observation of matter-of-fact and rigorous description of physical characters in his study of human osteology. He has to notice the minutest undulation or obliquity of surface, the existence of ridges, holes, edges bevilled or serrated; and before he has accomplished his task, and can pick out and name most of the vertebræ, and give the correct position of the carpal or tarsal bones, he will have had a wholesome exercise of his memory, a considerable addition to his set of words, and a lesson in the art of noticing minute differences, which will be valuable in any kind of employment, Professional or otherwise, which may hereafter befall him, besides its intrinsic importance as the acquisition of a part of human anatomy.

But we contend that the dark and dry bits of grammar would be enlivened and made a little attractive if the tutor had the wit to show the analogies between different languages, and some other interesting results of modern philological research. A cruel wrong, moreover, is perpetrated on children when, in learning different languages, they are forced to learn also new sets of grammatical terms to express the same thing, or if terms appropriate to the special peculiarities of one language are attempted to be applied to all.

Just so is it with the study of anatomy. The structure of man must be thoroughly, dogmatically, minutely, and exhaustively taught—there can be no mistake about that; but it is a great pity that this study is not enlivened by some reference to the other members of the animal kingdom, and if the terminology which past times gave to human anatomy be used exclusively, although it may be quite inapplicable to the structure of other animals, and it might be quite possible to construct a terminology that should be common to all.

We hail, then, the appearance of Mr. Flower's work, not only because it is a good book, but because it is an indication of increasing breadth in the anatomical schools. And though there may be, as Mr. Flower observes, some advantages in beginning with human anatomy, yet there are more in beginning with the simpler forms. This is especially the case with the skull, "the essential characters of which will be much

better understood if the student will also make himself acquainted with those of some simpler condition of mammalian cranium, as that of the dog or sheep."

The student now need no longer complain that comparative anatomy is sealed from him in works either too voluminous and expensive, or too short and superficial. If he have the enterprise which a boy of 17 or 18 beginning the study of his life ought to have, he can without difficulty provide himself with a sufficient number of mammalian bones to enable him, with Mr. Flower's aid, to lay the foundation not merely of accurate human anatomy, but of that wider and more philosophical survey requisite to understand even human anatomy thoroughly. There can be no difficulty in getting the bones of the dog, the sheep, the rabbit, which cost nothing, and may be had almost for the asking, in town or country. The lad who is working in the country for the preliminary scientific examination can get the mole, shrew, or hedgehog, and the bat; and anyone in London or a seaport, by looking about at the dealers in marine stores and odds and ends, who abound in back streets, may pick up the skull of the porpoise, perhaps of the monkey. We need scarcely say that the bones of the turtle are easily to be had, though that be not a mammal. Of course, whoever is within reach of the Hunterian Museum will not only find the bones, but will get any help or hints from the curators in attendance. We feel sure that any intelligent student who has begun with the dog's skull in one hand, and Mr. Flower's book, with its numerous clear engravings, in the other, will have an advantage over another who plunges at once into the more intricate study of the human skull.(a)

CHOLERAIC INFECTION.

It may be within the recollection of our readers that the Army Medical authorities, in their zealous endeavours to master, as far as possible, the subject of cholera, appointed two young Medical officers—one belonging to either service, and specially educated for their duties—to investigate the contagion of cholera in its native haunts. The first report of one of these gentlemen, Dr. Richard Lewis, of her Majesty's British forces, is now before us, having been published at once in the Indian Sanitary Reports, and separately. It deals mostly with the microscopic objects found in cholera evacuations, and is really an admirable contribution to the literature of the subject. First of all he explains Hallier's views—which, having received them at first hand, he is well competent to do—and illustrates them with capitally drawn figures (here let us give our meed of praise to the excellent illustrations with which the report is crowded). Hallier's views imply the existence of a fungus in cholera evacuations—as *cyst*, *spore*, and *micrococcus*.

Examining each of these in turn, the author shows that the so-called cysts are either fatty bodies having an albuminous covering, or ova of various kinds more or less altered. He has proved, moreover, that, by exposing choleraic and ordinary stools, fungi were developed in them, those of the healthy not differing from those of the unhealthy stools, and that in this way bodies resembling Hallier's fungus could sometimes, but not always, be produced. Penicillium and aspergillus were most frequently, but not invariably, formed; the oïdium lactis (Thome's cholera fungus) was also found in the product of healthy intestines.

So much for the cysts. Next, as to the so-called spores, certain portions of this division of the report are not quite so convincing as are the others. The spore-like bodies the author enumerates are globules of a fatty nature, altered blood cells, corpuscles imbedded in the tenacious substance composing the flakes, and globular conditions of certain infusoria. Of the first of these, Dr. Lewis well says that it is not at all times easy to recognise fatty matters by means of reagents. This is especially so when they are surrounded by material which is influenced in one way by the reagents which act on them in another—albumen, for instance. Still, it seems to us that the existence of spore-like bodies of a fatty nature has been fairly demonstrated. In establishing the second kind of spore-like bodies—altered blood corpuscles—Dr. Lewis seems to us to have taken almost more trouble than was necessary. Blood, as an ingredient in cholera stools, is well known, and blood corpuscles in other fluids than blood-serum frequently perform amœboid movements—as, for instance, in urine. One very instructive case is here given by Dr. Lewis, who, in a specimen of chylous urine, found not only blood corpuscles performing amœboid movements, but also the embryo of a nematoid worm, which may give a clue to one cause of this curious malady. These embryoes somewhat resembled fungus filaments when acted on by acetic acid.

As to the corpuscles associated with the flakes, these also present amœboid movements, and, in many instances, do not appear to differ from the lymphoid bodies so abundant beneath the surface of the intestine. The author does not hint at this origin, though it seems to us not unlikely. It is, however, the next and last division of spore-like bodies which seems to us of most doubtful nature; the author himself "alludes to them with the greatest caution." We would fain have avoided their importation at all, had not some reference to them been necessary. Undoubtedly, animalcules are found in cholera as well as in healthy stools; their connexion with the spore-like bodies is less self-evident.

One important remark made is, that shed epithelium is by no means a regular constituent of choleraic stools passed during life, although, of course, abundant in the alimentary canal after death.

Of the third class of bodies—micrococci—next considered, we have no desire to speak, inasmuch as the word micrococcus may be accepted as synonymous with germ. Our readers will, we trust, respect our feelings. Let us say, however, a word in praise of Dr. Lewis's researches—care is imprinted on every line and on every figure.

Finally, let the author draw his own conclusions. He holds:—

"1. That no 'cysts' exist in choleraic discharges which are not found under other conditions;

"2. That cysts or 'sporangia' of fungi are but very rarely found under any circumstances in alvine discharges;

"3. That no special fungus has been developed in cholera stools, the fungus described by Hallier being certainly not confined to such stools;

"4. That the still and active conditions of the observed animalculæ are not peculiar to this disease, but may be developed in nitrogenous material even outside the body;

"5. That the flakes and corpuscles in rice-water stools do not consist of epithelium, nor of its *débris*, but that their formation appears to depend upon the effusion of blood-plasma; and that the 'peculiar bodies' of Parkes found therewith correspond very closely in their microscopic and chemical characters, as well as in their manifestations of vitality, to the corpuscles which are known to form in such fluid; these are generally, to a greater or less degree, associated with blood cells, even when the presence of such is not suspected, especially as the disease tends towards a fatal termination, when the latter have been frequently seen to replace the former altogether; and

"6. That no sufficient evidence exists for considering that vibriones, and such like organisms, prevail to a greater extent in the discharges from persons affected with cholera, than in the discharges of other persons, diseased or healthy; but that the vibriones, bacteria, and monads (micrococcus) may not be *peculiar in their nature*, for these *do* vary, may not be the product of a peculiar combination of circumstances, and able to give origin to peculiar phenomena in a predisposed person, is 'not proven.'"

The latter portion of Dr. Lewis's report is occupied with an account of Professor Max Pettenkofer's theory of the causation of cholera, and an inquiry into the water-supply of various stations where cholera had prevailed; but as our readers have

(a) "An Introduction to the Osteology of the Mammalia;" being the substance of the Course of Lectures delivered at the Royal College of Surgeons of England in 1870. By William Henry Flower, F.R.S., F.R.C.S., Hunterian Professor of Comparative Anatomy and Physiology, etc., etc. London: Macmillan. 1870. Pp. 344.

lately had the benefit of the Professor's exposition of his own views, and of Dr. George Buchanan's vigorous comments upon them, we pass it by. The condition of the various stations is meantime of special rather than general interest.

THE WEEK.

TOPICS OF THE DAY.

We believe that no time is to be lost in commencing negotiations for the formation of a conjoint Examining Board for the admission of candidates to practise Medicine, Surgery, and Midwifery in England and Wales. We hear that the Committee of the Royal College of Physicians, re-empowered by the vote of Fellows at their last Comitia, will meet on Monday next, and that in all probability communications will be again opened with the other examining bodies without delay. We are certain that we express the feeling of the great mass of the Profession when we assert that it is in every respect most desirable that the negotiations which are thus to be begun should be speedily carried to a successful termination. The great benefit which would have been conferred by the Government Bill of last session was the approach which it made to the unification of examinations. This benefit can now be obtained unweighted by the evils of State interference. It is to be hoped that this opportunity will not be thrown away. The present current of feeling in the Profession is by no means towards revolution. We do not want to see institutions, which have conferred in their separate spheres of action enormous benefits by cultivating and disseminating Medical science, raising the standard of Medical education, and, as a consequence, the status of the Medical Practitioner, either swept away by an Act of Parliament, or shorn of all the honour which their previous history has yielded them. The Profession would rather that all that is of excellence in our present system of scattered examinations should be preserved and combined, and that the different Medical authorities in England and Wales should themselves establish that one portal system, the hope of which almost reconciled us to the domination of "my Lords" of the Privy Council. The cause of the failure of the recent negotiations was so obvious and so avoidable that there can be no excuse if a wreck is again made on the same rock. The Apothecaries' Society have had certain duties imposed on them by Act of Parliament. For fifty-five years they have performed those duties, and have performed them well; and, viewing not merely their own honour, but the Professional status of the great body of their Licentiates, they cannot, in the conjoint Board, accept a position which would place them on the level of a merely pharmaceutical and obstetrical body. We believe that an amicable arrangement is perfectly possible without in any degree diminishing the prerogatives or depressing the status of any of the examining bodies, and, we trust, not only on account of the great body of students who are entering the Profession, but for the sake of the Medical authorities themselves, whose independence, prosperity, and usefulness we are all anxious to conserve, that a good understanding will be quickly arrived at, and one effective Examining Board in Medicine, Surgery, and Midwifery for England and Wales be established. The example thus offered must in time be followed in Scotland and Ireland, and then, by its union and organisation, the Medical Profession will have given the country the best proof of its right to, and power of, self-government.

Mr. Gay's motion for the representation of the Fellows and Members of the Royal College of Surgeons in the General Medical Council was withdrawn at the last meeting of the Council of the College. It is understood, however, that its withdrawal is only temporary, and we can only repeat that we should gladly see it carried into effect. We understand that, previous to the withdrawal, the motion evoked a fair amount of discussion. It was seconded by Mr. Busk, and supported by several members of the Council. The principle on which Mr. Gay's motion is founded—viz., that a very numerous body such as the Fellows and Members of the College of Surgeons should have a larger amount of representation in the General Medical Council than a small body such as the University of Durham—hardly requires to be argued, if the General Medical Council is to be in any sense a representative body. But here lies the whole question. The Act of 1858 does not constitute the General Medical Council a representative body in any popular sense. Supposing, therefore, the motion carried, to make it operative an Act of Parliament or a new charter for the College would be necessary; at least, this is the opinion of high legal authorities.

The prisoner in the case of baby-farming which we noticed last week has been again remanded. The Counsel for the Treasury intimated that there were grave suspicions she had directly made away with certain children born in her house or committed to her care. Evidence was given that certain packages labelled "poison" had been found in her house, the contents of which were to be analysed. We hope that, if this woman is to be tried and condemned on a capital charge, clear testimony will have been produced that she intentionally caused death. It is notorious that the execution of Margaret Waters is considered by many of our own and the legal profession to have been a very rigorous proceeding.

Last week, a woman named Elizabeth Morvin was charged at the Southwark Police-court with attempting suicide by aquafortis. The poison had been procured by a child, the daughter of the prisoner, who went to several chemists, and at last found one to sell it her. We commend the case to the attention of the Pharmaceutical Society.

All our attempts to help the belligerents in this war seem destined to end in failure. They do not take our advice, and they show no appreciation of our services, or offer of services, to the sick and wounded. The correspondent of the *Times* seems to have learned to look on the well-intentioned but sadly mis-managed charity of his countrymen from a German point of view, only he finds in our proceedings material *pour rire* which certainly would be lost by a German. In his Wednesday letter Mr. Russell writes—

"The English Ambulance is to remain at St. Germain, where it will not have much to do, unless there is another sortie. There is the case of the man with the finger. But the time of the Surgeons will not be lost. Some have set about learning French; others, I believe, go round and look at the Hospitals. There are thirty wounded Prussians in the Palace close by, very close to the collection of antiquities made by the Emperor, who has left there something to France. The waggons—horribly ugly and heavy, and contrasting very unfavourably with the French ambulances—are parked in the court and parade ground, flanked by the bronze battery of the Guard Landwehr. The determination to send all or part to Corbeil has been resisted effectually."

ELECTION OF SURGEON-ACCOUCHEUR TO THE QUEEN'S HOSPITAL BIRMINGHAM.

On the 7th inst. the special governors who were empowered to elect met and proceeded to the election of an Honorary Surgeon-Accoucheur. At first there were four candidates—Professor Clay, Dr. Earle, Mr. Arthur Oakes, and Dr. Roe; but ultimately this number was reduced to three, owing to the resignation of Dr. Earle, necessitated by a severe and deplorable illness, in which he has had the cordial sympathy of his *confrères*. The result of the voting showed thirty votes for Professor Clay and five for Mr. Oakes; consequently Professor Clay was almost as good as unanimously elected. He was proposed by Mr. Avery, and seconded by Mr. George Dixon, M.P. By this appointment the governors of the Hospital have secured the services of an eminent obstetrician of European repute, and the Professional staff a colleague who will add undiminished lustre to their body.

PARIS DURING THE SIEGE.

A CORRESPONDENT in Paris, writing on the 5th inst., the forty-ninth day of the siege, has favoured us with the following interesting particulars as to the Medical aspect of affairs inside the city. He describes the French as quite unable to cope against the Prussians, and corroborates all the statements we have heard as to their military organisation being a sham, supported by false reports and corruption on all sides. The Medical department is strangled by the *Intendance*. Not an improvement has been introduced into the Hospital or ambulance arrangements since the commencement of the war; and hence it is that the International and American ambulances have had so much to do. He has seen many Hospitals, and great numbers of wounded, but, except among the Americans and Austrians, he has not seen much to admire. He stood a few days ago, during a severe fight, close by a battery of mitrailleuses, doing their horrible work; it was awful; many of the wounded had to be left in the field on the approach of night.

Conservative Surgery is practised with considerable success—but not by the French. The Americans treat their cases in tents heated in a simple and ingenious way. They have under their care gunshot wounds through the neck and shaft of the femur doing well without operation; also wounds of the lungs proceeding favourably—in fact, almost all wounds seem to do well with care, except those of the knee. The Austrian Surgeons are also very successful in the preservation of limbs.

The scarcity of meat is much felt, the allowance being 35 grammes, or less than $1\frac{1}{4}$ oz. daily, so that people who are unable to get anything beyond the actual allowance are put to great straits, and the mortality has within the last week greatly increased. People who can afford famine prices can still be well-fed—our correspondent, we are happy to say, being among the number.

DR. HAYWARD'S MODEL HOUSE.

IF any of our readers are proposing to themselves that most delightfully vexatious task, the building of a new house, we advise them first of all to take counsel with Dr. John W. Hayward, of Liverpool, and, if possible, to inspect the house which he has built in Grove-street, in that town. More especially it is in the wofully neglected department of ventilation that they will get a profitable wrinkle. There ought to be in every house a regular and recognised channel of air-supply, instead of allowing air, as at present, to sneak in through misfitting windows and doors, down chimneys, out of one room into another, beneath dirty old floors, and through sinks, sewers, and water-closets. Moreover, the air ought to be warmed; and there should be care taken to provide a special outlet for that vitiated by breathing, lamps, etc., without allowing it to mix again with the air in the body of the house. Dr. Hayward has given a description of his house in a pamphlet;(a) but we should be glad to hear of his devising some plan for the compound dwellings of the poor—such as the model lodgings. We were once on a school-building committee, where all systems of artificial ventilation and warming were denounced as "un-English," and as opposed to our national, and therefore supposed perfect, system of heating by open fires and ventilating through open windows—a parallel to our supposed national diet of raw beef. But we conceive that we shall never do away with what some may call the obstinate and unreasoning antipathy of the poor to fresh air until we can supply apartments with air ready warmed. Taking houses as they are, the desideratum is some cheap and effectual method of supplying the entrance-hall, staircase, and passages with abundance of pure air, and of warming this, and providing channels whereby it may flow into the room without sensible current, and may maintain a good up-draught in the chimneys. Dr. Hayward's plan embraces a "special lobby," which is to be cut off from the entrance-hall and stairs by doors, and which is to be the special receptacle of warmed air, and into which the doors of the apartments open, besides that numerous large apertures for the entry of warmed air exist in the partitions which separate the rooms from the central warm-air lobby. This is a degree of perfection not possible to be attained in houses already built, and difficult to procure where land is dear. Dr. Hayward gives as one reason for the expediency of the special lobby the impossibility otherwise of keeping out "servants *and other listeners*." Now, this is a point not always thought of by persons who undertake to ventilate houses. A friend of ours, who set to work to ventilate a poor lodging-house, made a fair-sized opening into every room, close under the ceiling, from the common staircase. Certainly, the air supply was improved; but where air can pass *sound* can too, and the practical result being that every sound in any one room was audible on the staircase, it was necessary to stop up the openings and do without air, in order to balk the "listening Toms" who are fond of knowing other people's affairs.

(a) "Remarks on the Sanitary Necessities of House Building." By John W. Hayward, M.D., etc. Liverpool: Watts.

THE CONTAGIOUS DISEASES ACTS AT DEVONPORT.

WE heartily pity the authorities, Medical and otherwise, of the Albert Hospital, Devonport. Our readers are aware that a certain portion of this building is devoted to the reception of females coming under the Contagious Diseases Acts, and that the authorities have power to detain these until well. We do not think that in our Profession it will be admitted that men are accustomed to keep patients in bed or in Hospital merely to spite these patients, nor can we suppose that the Medical officers of the Albert Hospital are in this respect so different from their fellows that they refuse to set a woman unaffected with disease at liberty. Nevertheless, a short time ago, three girls came before the magistrates seeking release on the ground that they were wrongfully detained, not being diseased. On their behalf Mr. Wolferstan, M.R.C.S., a gentleman who, since a certain period, has rendered himself rather notorious as an opponent of these Acts, appeared to give Medical evidence in this fashion—

"Mr. Wolferstan, M.R.C.S., said he had examined Roberts that morning, and found that she was suffering from ulceration, but unquestionably not of a contagious nature.

"Mr. Ryder: Will you undertake to swear that she does not present the appearance of suffering from contagious disease?

"Mr. Wolferstan: No; but in my opinion she is not suffering from contagious disease.

"Mr. Ryder: In order to warrant her discharge she is to satisfy us that she is free from such disease.

"Mr. Adams: The disease, if any, is undefined at present by Medical testimony, and therefore she ought not to be detained.

"Mr. Ryder: Are you of opinion that what you have alluded to has existed some time, and is the result of disease?

"Mr. Wolferstan: I believe it is not the result of disease; the woman is entitled to her discharge.

"The Bench declined to make the order.

"Susan Eddy's application for discharge was the next heard.

"Mr. Wolferstan said he examined the applicant that morning. He found that, although the woman was suffering, she was not in a condition to bring her under the Act, and to warrant her detention.

"In reply to the Bench, he said a woman might be suffering in the manner described, which was not inconsistent with a virtuous life. She had been detained thirteen days.

"Mr. W. P. Swain, F.R.C.S., then deposed to having examined the applicant on Saturday. She was, in his opinion, in a condition which warranted her detention. He had examined the Hospital register, and found that she was justly taken into the institution in January last.

"In answer to Mr. May, Mr. Swain said it was sufficient for him to say that he believed the woman was suffering from the disease in question.

"In this case, also, the Bench declined to make an order of discharge.

"Sarah Mack was the third and last applicant.

"Mr. Wolferstan said he had examined Mack, and con-

sidered her symptoms were accounted for by a premature labour which took place three months after pregnancy. There was no appearance of disease, but such as was frequently found in women after such an illness.

"Mr. Swain said he had examined the woman, and found that she was suffering from illness which he believed to be contagious.

"After some professional questions had been put to witness by the Bench, they decided, as in the other two previous cases, to refuse an order of discharge."

Can any one who is well acquainted with the course and symptoms of venereal diseases doubt for a moment that Mr. Wolferstan was wrong in roundly asserting that a certain sore was not contagious, and a certain discharge of a natural origin, and innocuous? He is a bold man who dares dogmatise in such fashion; but we impute to him no improper motives. He may have been convinced he was right, and yet have been sadly in the wrong. We deal only with the Medical portion of the evidence, but we cannot help regretting that such lamentable displays of assertion and contradiction should be made before a not-admiring crowd. Nevertheless, it is plain the presumption of right was on the side of the authorities.

THE ST. GERMANS BOARD OF GUARDIANS AND THEIR MEDICAL OFFICER.

Mr. Kemthorne, the Medical Officer of this Union, lately forwarded to the Board of Guardians the following letter:—

"I have the honour to request that you will be good enough to bring before the St. Germans Board of Guardians the increase in the number of the agricultural labourers, their wives and families, who are thrown on my list for Medical treatment—persons who are not ordinary paupers, and many of them earning up to 12s. a week. In undertaking parish duties, a Medical man could not anticipate a number of unrestricted orders being forced on him for the attendance of labourers and mechanics, in addition to the care of the ordinary paupers. I find now that agricultural labourers can obtain an order for Medical attendance from any overseer or relieving officer. I cannot object to this facility in obtaining cases for Medical treatment, but under these circumstances I must request the Board to reconsider my salary, and that extra payment be made for my increased duties. . . . I should suggest that the above cases be charged by a certain rate per visit, in addition to my usual pay."

After some discussion, the following resolution was unanimously agreed to:—

"That the clerk be instructed to state, in reply to Mr. Kempthorne's letter of the 5th inst., that it is indispensable to the due administration of relief under the Poor-law that each case, as far as Medical attendance is required, be regulated by the circumstances of destitution of the applicant, irrespective of whether the applicant was or was not in the receipt of pay, as pauper, at the time when the order for Medical treatment was given; and that the relieving officer or overseer, in urgent cases, must, in the first instance, carefully use his discretion in granting such order, subject first to the revision and discontinuance of such order, if necessary, by the Board of Guardians at the first meeting after the order being given, and that Medical officers must regard such cases as included in their duties. That it be resolved that it be intimated to the overseers by a circular from the clerk, that when urgent cases occur, admitting of no delay in referring the applicant to the relief officer, they are applied to for an order for Medical treatment, they should make careful inquiry into the circumstances of the applicant, and personally attend the next meeting of the Board of Guardians to explain the particulars, or else report them in writing."

FROM ABROAD.—NEW OPERATION FOR ERECTILE TUMOURS—WATER-GLASS AS A BANDAGE.

At a recent meeting of the Belgian Academy of Medicine, M. Michaux gave an account of a new mode of procedure he had adopted for the treatment of erectile tumours. During the thirty-four years that he has been engaged teaching clinical Surgery at Louvain, he has had abundant opportunities of putting the various modes of treatment that have been recommended, from time to time, into force, and has communicated the results to the Academy. The present plan, which he regards as preferential to all others, consists in a combination of Guersant's *cautérisation actuelle parcellaire* with the employment of the perchloride of iron. He had heretofore frequently had recourse to this mode of cauterisation, and found himself obliged to have recourse to the perchloride in order to arrest the hæmorrhage which ensued on the cauterisation. He soon, however, remarked that this application contributed greatly to the cure of the tumour, and therefore he resorted to its use in cases in which the cauterisation gave rise to no bleeding.

"At the present time this is the way in which I treat erectile tumours, whatever may be their description, seat, or size:—With one of Guersant's needles, heated to whiteness, a track is practised on the tumour, either directly or by piercing the skin at a certain distance from it. Several needles may be placed in the same track, but that is not indispensable. As soon as the cautery is withdrawn, I substitute for it tents of charpie, soaked in perchloride of iron, and prepared beforehand. I thus plug the aperture until no more blood flows, and leave the charpie *in situ* until suppuration is well established. I then replace these tents by others, taking care to increase the detachment, and repeat this dressing every day or every other day, according to the amount of suppuration. In this way I destroy entirely the erectile tissue, invading it in every direction with the charpie soaked in the perchloride. If the tumour is very large, several punctures may be made; and if cutaneous arterial spots (*taches*) persist, they may be painted with the perchloride or cauterised by Guersant's needle."

M. Michaux observed, in conclusion, that the practice was a certain one, unattended with danger, and easy of execution; while the same results are not obtainable either by using the caustic alone or by the injection of the perchloride—this last being sometimes dangerous by producing gangrene.

Professor Darby, of the University of South Carolina, in a recent publication, furnishes a very favourable account of the results of the employment of liquid glass in the formation of immovable bandages. He thus describes the mode of application:—

"The mode of application as a Surgical dressing is very similar to that in making immovable apparatus with other substances; but the neatness, lightness, firmness, durability, and ease of application render this preferable to gypsum, in being lighter and not requiring renewal from cracking and breaking. It is far more convenient of application than dextrine or glue; and in comparison with starch it is more tenacious and firm, and dries more rapidly. An extensive experience in the use of them induces me, after a fair trial, to place it above these materials for general usefulness. In applying this dressing, the limb should be first enveloped in cotton-wadding—to protect prominences of bone from undue pressure, to cause the bandages to closely fit irregularities of surface, to absorb moisture, and, at the same time, to yield to any swelling which might occur. After the wadding has been well fitted, unglazed muslin should be used as a bandage, and with the hand—or better, for economy and neatness, with a painter's brush of moderate size—silicate of potash should be thoroughly applied to this the first bandage. Another, the second bandage, should then be adjusted immediately over the first, and a liberal covering of the liquid glass applied. To give stability to the mobile parts, as at the seat of fracture and at the joints, strips of muslin, well soaked in the fluid, should be placed one over another to the thickness desired and required; or pasteboard, felt, veneering of mahogany, cedar, pine, or other wood may be added or substituted. The third and final bandage should be made to completely cover the second and the strips of cloth, paper, wood, or other material, and then be saturated with the solution. If regarded as necessary, to furnish additional strength and security from mobilisation, short strips dipped in the liquid can be applied to such parts as cause apprehension, without enveloping the entire limb in a fourth bandage. The dressing having been made, the limb should be kept at perfect rest until drying is shown in the hardness and solidity of the apparatus by immobility, the time for this condition depending upon the thickness and quality of the materials, and the quantity of the substance applied. With two or three layers of bandages, three or four hours will suffice; and when five or six thicknesses—including paper, or felt, or an absorbing material—are used, from eight to twelve hours. In the lower limb of an adult, 2½ lbs. of the liquid are sufficient, and half this quantity for the upper extremity. In the removal of this dressing, difficulties exist,

as with plaster, starch, etc. Hot water is an adjuvant, but fear of scalding forbids its use except with the greatest caution. The scissors or knife, as used for starch bandage, is applicable to this. In the event of the dressing becoming loose from congestion subsiding, by cutting out a portion and boring holes it can be laced as a boot to fit the limb; or, by bringing the edges together, and placing a longitudinal strip, and binding this by short strips partially or completely encircling the limb, the apparatus is made as solid, firm, and immovable as when first put on the part. In compound fractures or in ulcers, by making a point upon the superimposed bandages corresponding in shape and size to the injured or diseased parts, and cutting out the parts thus marked, the wounds can be dressed; or, by leaving a portion attached, a door over the fracture or ulcer can be made to open or shut as desired. In œdema of the limbs, in chronic arthritis, in club-foot and other deformities, in firmly-fitting bandages for reduced luxations, in fractures (simple, compound, and ununited), in sprains—and, in truth, wherever absolute rest is required and immobility is to be maintained—I know this to be a superior method of dressing."

ROBERT KNOX, THE ANATOMIST.(a)

It is remarkable how often with the general public the reputation of some men is only of the hour in which they live, or in which they attract attention by their doings. Churchill "blazed the comet of a season," and for that period had the eyes of all England fixed upon him. But how few are there now who could tell you who was the author of the "Rolliad," or "The Epistle to Hogarth." Yet there is much in the writings of this truly English poet which deserves to be remembered. Indeed, he is now occasionally quoted, but few recognise the source of the quotation. The reason may be, and probably is, that Churchill's best poems are too personal, and too much of the hour in which they were written. We have been struck of late, in talking to members of the Profession generally, to find how few are acquainted even with the name of Robert Knox, and how much fewer have any knowledge of his writings, or of his fame as a lecturer or an author. The work of Dr. Lonsdale will do good in calling attention to the claims upon science and philosophy which the subject of his "sketch" has upon the Profession of Medicine, and upon the public in general. Robert Knox was born on September 4, 1791, and was the eighth child of Robert Knox and Mary Sherer, or Shererer, a farmer's daughter, whose family were of German extraction. Knox, who had been exceedingly well educated, and had "loftier aims than the bucolic life of his family," sought his fortune in Edinburgh, where he taught some branches of natural philosophy, and was the Mathematical Master of George Heriot's Hospital. Robert, the subject of this memoir, was "the darling child of his parents, and was said to be good-looking, of fair complexion, with soft flaxen hair, and large blue eyes." A severe attack of confluent small-pox in early life disfigured him greatly, and destroyed the sight of one of his eyes. His early education was commenced at home, but he was sent when quite young to the High School of Edinburgh, where, in 1810, he came out as geld medallist. In the same year he joined the Medical classes of Edinburgh, and took a prominent part in the weekly discussions of the learned societies that assembled under the shadow of his *alma mater*. That in these discussions Knox distinguished himself greatly there can be no doubt. Plucked, as it is said, on his first examinatiou for the M.D., in his Anatomy, on his second appearance he startled his examiners, "as he had anatomy at his finger-ends, and could set forth his knowledge in the choicest Latin—the language in which the examinations were at that time conducted." His knowledge of anatomy was acquired by transferring his attendance of lectures to those of Barclay, a most painstaking and able teacher, from those of Monro *tertius*, whose teachings were of the meagrest. Knox, in 1815, was sent to Brussels to render aid to the wounded of Waterloo. He was subsequently gazetted to the 72nd Highlanders, sailed to the Cape of Good Hope, and there remained until the autumn of 1820. In 1821, having obtained permission to go abroad, he studied his Profession in the Medical schools of Paris. He continued on half-pay until August, 1832. During the time he was abroad his ever active mind was engaged in the study of biology, in experiments on meteorology, and on other branches of science. From 1822 to 1824 he contributed various papers to the Wernerian Society, on subjects of comparative anatomy, to the Royal Society, and to the *Edinburgh Medical and Surgical Journal*. He became, in 1825, Conservator of the Museum of the Royal College of Surgeons, "or, to speak more correctly, of its pathological portion." He joined Barclay, then the most able teacher of anatomy in Edinburgh, in 1825; and in the following year, on the death of Barclay, Knox succeeded that distinguished teacher. This was the commencement of his great fame as a lecturer—and certainly no anatomist of ancient or modern times was more striking and successful as a teacher; and he soon became not only the successor of his distinguished master, but "to be designated as 'Knox primus et incomparabilis.'"

It is not within the compass of an article of this kind to go into the particulars of Knox's life. We must leave our readers who desire to do this to the interesting work of Dr. Lonsdale. It will well repay them for its perusal. The great event of Knox's life—and the one which marred his prospects, and eventually ruined him—must not pass, however, without notice. We allude to the murders perpetrated by Burke and Hare. For some time previous to these atrocities, the difficulty of procuring subjects in Edinburgh had been very great—so much so that bodies had absolutely to be imported from England and Ireland. Knox, who was most anxious that his class should be properly supplied, often suffered great pecuniary loss by the large price he paid for subjects. The adventures of professional resurrectionists and of Surgeons and pupils in pursuit of "subjects" form a not uninteresting episode of Dr. Lonsdale's work. It was in the latter end of the year 1827 that Knox's school began to receive the dead bodies of persons who had been murdered in the low parts of Edinburgh. It is unnecessary here to go into the particulars of the manner in which Burke and his coadjutor effected their object. Their plan of proceeding was to inveigle poor and destitute persons into their lodging, and then stifle them by pressure upon the mouth and chest. These bodies were then taken to the dissecting-room of Knox. Upwards of a dozen were thus supplied, and there was no suspicion of any foul play. At length the secret came out; the murderers were arrested. Hare turned king's evidence, and Burke was executed. The popular fury against Knox was wild and savage. He was charged in so many words as a *particeps criminis*, and held up to public odium and indignation. He bore with the accusation for a time in silence, but eventually replied to it in a dignified and somewhat haughty manner. That he was entirely innocent of the dreadful charge made against him, it is scarcely necessary, perhaps, to say; but so grave was his position, that a committee of persons of the highest position and character thought it desirable, on his behalf and for the interests of the public, to inquire fully into the matter. This they did, completely exonerating Knox, but considered, under the circumstances, that he should have exercised "greater vigilance." Notwithstanding this acquittal, however, Knox was exposed to great personal danger from the populace, and more than once had occasion to display a coolness and a courage never surpassed.

We quote from Dr. Lonsdale's work—"One night, when Knox had attracted a large class to hear him on a favourite subject, the crowd in the approaching street or 'yards' mustered in unusual force. During the pauses in the lecture, the yells and howling outside were distinctly heard in the class-room. The students got alarmed, and kept looking to the doors of egress. Knox, perceiving the growing restlessness of his audience, suddenly paused, and made use of words to this effect—'Gentlemen, you are disquieted by these noises, to which, no doubt, you attach a proper meaning. Do not be alarmed! It is my life, not yours, they seek. The assailants of our peace may be big in menace, but they are too cowardly in act to confront such a phalanxed body of gentlemen as I see before me. How little I regard these ruffians you may well judge, for in spite of daily warnings and the destruction of my property, I have met you at every hour of lecture during the session, and I am not aware that my efforts to convey instruction have been less clear or less acceptable to you.' This statement was received with such cheers as never rung through a class-room in Edinburgh, and, as they resounded beyond its walls, cowed for a time the uproarious mob." Notwithstanding his courage, his wonderful ability and popularity as a lecturer, Knox eventually succumbed to the opposition which he received,

(a) "A Sketch of the Life and Writings of Robert Knox, the Anatomist." By Henry Lonsdale. Macmillan.

not only from the general public, but from members of his own Profession, and from the leading men in Edinburgh. His class fell off, he was refused the chair of pathology in the University, and, in fact, was "sent to Coventry." Yet, amidst all his reverses, he was never down-hearted, never dismayed. Indeed, his courage always seemed to rise with the occasion. One instance of his daring and readiness is so good that we quote it entire:—

"Mr. John Stark, a printer in the city, and also a naturalist, wrote a reply to Dr. Knox's Essay on the Food of the Herring and Salmon, which he communicated to the Royal Society, December 4, 1837. As it got rumoured by Dr. Knox's enemies that Mr. Stark's paper would contain an exposure of the Doctor's plagiarism and recklessness of statement, the hall of the Society was crowded beyond precedent. Sir Thomas Brisbane was in the chair. Mr. Stark held that there was no analogy between the vendace and the herring, seeing that they lived in different mediums, one in salt, the other in fresh water; and that they were of different natural families. His historical notes were looked upon with greater interest as affecting Knox's claims to precedence; for Stark maintained that Leeuwenhoeck had figured the identical animal found in the stomach of the vendace in 1833 by Knox, more than 130 years before; that the food of the herring was described from personal examination by Neucrantz previous to the year 1654, by Leeuwenhoeck in 1696, by Fabricius in 1781, by Müller and Block about 1785, by Lacipede and Latreille in 1798, by the Rev. Dr. Scoresby in 1820, and by Pennant and other writers who had treated of the natural history of fishes.

"As if in nowise discomfited by the Stark indictment against his literary reputation, Knox rose up quite calm and collected; and turning at his then triumphant enemies like a lion at bay, began his reply by saying—'Is it necessary for me, Sir Thomas, the friend and companion of Baron Cuvier, to defend myself in the society of my compeers against the base and personal scurrilities of a mere dabbler in science?' And in this strain, avoiding the merits of the question at issue, he continued to pour out in the most fervent style the vials of his wrath on Mr. Stark. His speech came like a flood of invective and wit; the big stones heaped up by his enemies to stem the Knox current were swept away by force of eloquence and pointed satire, such as had never been heard within the walls of the Society. An almost breathless stillness prevailed whilst the Doctor continued to unveil the tactics of the opposition, and each pause in his speech was filled up by a round of applause. By-and-bye he turned upon the Rev. Dr. John Fleming, a noted naturalist, who had written on the same subject, and took his notions to pieces; then suddenly reverting to Mr. Stark, he denounced him for allowing himself to be made 'the catspaw of a party'—words which he took care to repeat so as to indicate the persons behind the scenes. At this point Knox was interrupted by Professor Traill, who thought that he was still speaking of Dr. Fleming, and who in great wrath declared he would not allow anyone in the Royal Society to call a minister of the Church of Scotland 'the catspaw of a party.' Mr. Stark, taken suddenly aback, and wishing to correct the Professor's mistake, called out, 'It's me, he means, Sir Thomas; it's me.' 'Yes!' said Knox, with ready wit and infinite point; 'it is you! he knows himself, Sir Thomas; he knows himself to be the catspaw of a party, and that he has come forward at the instigation of a clique.' Up started another Professor (Christison), quite as indignant as Traill, who could not bear to have it stated that there existed anything of the nature of a clique in the Royal Society. 'He is one of them,' calmly replied Knox, 'and naturally feels a little sore on the subject; you observe, Sir Thomas.' He was now left alone to finish what sounded like a triumphant retort upon the reader of the paper, and was received throughout with roars of laughter and applause. When Knox sat down, a third Professor (Syme), believing that he had an arrow in his quiver which would hit the Doctor effectively, rose and asked why Dr. Knox ridiculed Sir H. Davy for telling his readers that a whale was not a fish. 'Did Dr. Knox think a whale was a fish; or, if he did not, why cast ridicule upon Sir Humphry for saying it was not?' 'Sir Thomas,' said the Doctor, in reply, 'the scientific character of any naturalist who would think it necessary to tell his readers that a whale is not a fish, and the scientific character of anyone who would ask whether the whale was a fish or not, require no comment!' Thus ended a grand passage at arms between Robert Knox and the 'professorial clique' of the Royal Society. The anatomist, armed with his own weapons—a polished satire more keen and incisive than any Damascus blade in Saracen's hands—cut right and left, smiting his enemies hip and thigh. No such laughing interlude occupied the boards of the Theatre Royal in Edinburgh, and no such tiptoe excitement prevailed amongst the 'gallery gods' of the Hall of Comedy, as was witnessed that night within the walls of a learned society."

When Knox retired from Edinburgh, he subsequently lectured, but unsuccessfully, at Glasgow, and gave occasional lectures in some of the large towns in England. He was always listened to with great attention, and astonished his audiences with the originality of his views and his charming style of delivering them. Whilst in London he contributed to various Medical and other papers—his last contribution being to this journal. But he never rose from the abyss into which he had been plunged by the "godly" people of Scotland, who persecuted him not more for the Burke affair than for his "nonconformity" and unbelief, and for the bold and trenchant manner in which he denounced all priestcraft and "humbug."

After some years' sojourn in the metropolis, he died at Hackney, on December 20, 1862, in peace, after so many vicissitudes, and to the last consistent in those opinions which he had formed with so much labour and study, and which he had not abandoned when their abandonment might have served him in reputation and in pocket.

He was in comfortable circumstances at his death. He derived something from his literary labours, and practised midwifery to some extent. He was a great favourite in this department of practice, both with the nurses and the patients.

In concluding this necessarily brief and imperfect sketch of a very remarkable man, we have not given even the titles of his many anatomical, physiological, and pathological works, most of which lie buried in the archives of the Royal and other societies; but it is not upon them that the fame of Knox will rest—it is his late works, "The Races of Man," "Great Artists and Great Anatomists," &c., that will hand down his name to posterity as a bold and original thinker, and a man of deep and varied knowledge.

Our estimation of the character of Knox, whilst it falls short of that of his biographer, is high. The weakest point in his character was his consummate vanity and self-esteem. He was not, in the proper sense of the word, a proud man, for he could stoop to practices to which a really proud man would not condescend. But his vanity showed itself even in the style in which he dressed—more than full dress—when he delivered his lectures. He was boastful, jealous, and envious of others; but he was courageous, consistent in his opinions, and in private life amiable and large-hearted.

As a lecturer on anatomy he had no equal, and in the Edinburgh school he wrought an entire change in teaching that branch of Medical study. He eschewed the dry, formal, and lifeless system which had been long followed by Monro *tertius* and other lecturers, and threw such a charm round "the subject" that he might truly be said to make the "dry bones live." His fame as a lecturer, like that of a great actor, is necessarily traditional; but that he had marvellous powers when "on the stage" is proved by the admiration and enthusiasm he excited amongst his audience. In later life—and it was only in later life that we made his acquaintance—there was something wonderfully charming about the old man. If one was somewhat impressed occasionally with what appeared to be a want of sincerity, his kind and genial manner, his cheerfulness, his power of conversation, the "low sweetness" of his voice, inspired you at once with a kindly feeling towards him. On the few occasions on which we heard him speak at the Medical Societies, we were struck with the quiet, unobtrusive manner in which he spoke; but he always showed himself master of the subject, and master, too, of language, for his words were elegantly chosen, and his sentences classic and finished. Such strength in repose indicated in some degree what must have been his power in "action." Knox was not a mere anatomist; he was a good Surgeon, and performed some important operations with consummate skill. Had he devoted himself to Surgery, he would no doubt have risen to great eminence.

We have given one or two specimens of the manner in which he spoke and comported himself under trying and peculiar circumstances. He was ever ready, ever happy, whether in attack or defence; but was it not to this dangerous power that he owed much of his misfortunes? We think so. He spared neither friend nor foe in discussion, and would rather "lose his friend than jest." But his freedom of speech on subjects which cannot be treated properly with levity did him also much harm. He frightened the "serious" people of Edinburgh by what they called his "atheism" and "infidelity." But Knox was not an atheist; his conversations and his

remarks showed that he had great reverence for the Deity. He condemned sects and churches, but had faith in the "Father of All." Ugly to a degree—his face scarred by the small-pox and one eye destroyed—his redeeming feature was his fine expansive and powerful forehead. He was well and firmly built, of great activity of limb, elastic even in his latest years. He himself considered his form perfect, and had said so.

With all his faults, and they were many, he had redeeming qualities which entitle him to our admiration and esteem—admiration of his strong and fertile intellect, of his varied and elegant acquirements; esteem for him as a kind-hearted man in private life, as a devoted son, and an affectionate father.(h)

J. F. C.

DARWINISM AND MORALS.

By DR. F. A. HARTSEN.

Very important are the modifications which Darwin's hypothesis has brought into our method of studying plants and animals. Since that important step of civilisation, we look, indeed, at nature with another eye! Phenomena, which hitherto struck us only as a matter of curiosity and æsthetic, show themselves now in quite another light. But here the working of Darwin's idea does not stop. It seems even to go so far as to bring a revolution in our views of morals, politics, and theology.

It is an undeniable fact that several adepts of the new theory are making it the basis of ethical views. Whether in this respect they simply draw conclusions from Darwinism, or actively seek in this system for support to preconceived notions and sympathies, this we must leave undecided.

This much, however, is true—that some enthusiastic Darwinists try to make the doctrine of their master the vehicle of maxims which to a great public will seem far from edifying, and which, if carried out, would have the gravest result.

Darwinism is an effort to formulate the highest law, which would ultimately govern the destinies of the world. Now, it stands to reason that this law, if it be found, should be the regulation of every man's acts—*i.e.*, the supreme principle of morality. For this is clear—that acting morality is nothing else than carrying out *with full consciousness* the highest law, which in lower beings is acted out more or less unconsciously. If, now, this highest law be *natural selection by struggle for life*, we seem to be led to the consequence that man cannot do better than contribute to his utmost to improve nature by means of *selection*.

Such conceptions seem to have arisen with more or less clearness in some writers upon Darwinism. Mdlle. Clémence Royer, for example, as I have been told, the zealous adept and translator of Darwin, has proposed that all weak—at least all deformed—children should be destroyed as soon as possible.

I have not read Mdlle. Royer, and as to her views, I only speak from *on dits*. But I have read Häckel's "Schöpfungsgeschichte," and will quote a few passages from this eminent writer.

Professor Häckel, speaking of the manner of improving mankind by selection, says:—"An excellent (ausgezeichnetes!) example of artificially improving mankind is given by the old Spartans, etc." This kind of selection is, according to Hackel, of the greatest use. It is destroying such beings as would otherwise, "to their own detriment and that of others"—words of Professor Hackel—be kept alive.

We do not intend to say that Professor Häckel wishes to renew that ancient "excellent" system, and wishes to introduce Spartan nurseries into modern civilisation. We dare not say so, so long as Professor Häckel does not. But we do not forget that there is such a thing as *reserve*, practised not alone by Count Bismarck and other diplomatists; *and in any case it is true* that Professor Häckel expresses no horror at that system of nursing.

After having pointed out the "excellent" system of improving mankind, Professor Hackel gives a few examples of antagonistic systems of selection which, instead of improving mankind, tend, on the contrary, to its degeneration. He calls them the *military* and the *Medical* selection. The military system—the Prussian combination of a standing army and a general militia especially—has this result, that the most vigorous men are slaughtered, whilst the cripples take upon themselves the task of procreating a wretched posterity. The *Medical* selection is the consequence of the fact that, by the progress of Medical science, the life of incurable invalids is prolonged a long time, and opportunity given them to procreate a miserable offspring.

As to the Prussian military system, its bad consequences are only too evident, and it does not require Darwinism to condemn it. Nevertheless, praise is due to Professor Hackel for having pointed out its evils as to the "improvement" of our race.

But what can be said of Häckel's conception of what he terms Medical selection? Here, again, the author does not affirm that Medical science is wrong in supporting incurables, and that our Hospitals—those for incurables—should be converted into *abattoirs!* But, surely, he is not very far from asserting this, and some "radical" disciple of his has only to go a *little* step further to come to that conclusion; and, perhaps, the next scholar will so work out the system that he will propose a St. Barthlomew's Day of invalids, dwarfs, and *vieillards* being held every four or five years!

The mildest form of all such offshoots of Darwinism is the condemnation of all invalids to a permanent state of bachelorship.

Another growth of innovation upon the domain of morals is shown by the principle of *struggle for life*. If struggle for life be the highest moving principle in the world, it may be argued that, among men and nations, struggle for life is the normal state and all praise of peace and generosity but mere Utopian sentimentality. In short, Darwinism seems to sanction the most gross egotism, both in common life and in politics.

We proceed to the criticism of the theories above mentioned. Many will reject with "scorn and indignation" proposals like those attributed to Mdlle. Royer. We do not follow this example; for scorn proves nothing, and indignation is no argument. Every man has a right to differ in opinion from the majority, and to speak his thoughts freely—"*Du choc des opinions jaillit la vérité.*" We wish, therefore, to discuss the subject in earnest.

As to the principle of exterminating deformed children, cripples, etc.—let us call it, in short, the *abattoir* theory—we would urge the following:—

We admit that morality consists in carrying out with full consciousness the highest laws of nature. We therefore agree that it is our duty to improve the quality of our race. But we positively deny that the *abattoir* theory shows the manner of attaining that end.

In the first place, this kind of selection is very rough. It is not so easy to decide which child is a cripple and which is not. Many an Adonis as to his body is a cripple as to his mind, and *vice versâ*. Now, we do not undervalue the importance of a well formed body, but a well formed mind had better exist with an imperfect body than not exist all. So then, cripples even may, by thinking and invention, contribute directly to the improvement of our race.

But how is it as to those beings who really are a "bore to themselves and to others"—that is, to society?

We take the liberty to contest the existence of such beings. The incurable idiot, even, is useful as an object of observation, and as such, in promoting Medical science.

Our antagonists may reply that to promote Medical science is not useful. If our theory is carried out, they of the *abattoir* system will argue, then there will be no invalids, and consequently Medical science will not only be superfluous but noxious.

This would be true if there existed *perfect* men, but all "perfection" is relative. In reality the soundest man may want Medical aid, and may thus benefit by the science based on the observation of cripples.

The most modest friends of the *abattoir* theory, we said, are those who do not go further than to oppose absolutely the marriage of invalids on the score of hereditary infirmities. Even these, to our mind, overlook some important facts.

Certainly, by the laws of inheritance, a child has some chance of inheriting the infirmities of his parents. But the law of inheritance does not stop here.

A child has not only parents, but grand-parents—in short an almost infinite range of ancestors. Consequently, there is such a thing as *atavism*, which implicates a tendency to return to the normal state.

To the "*vis mediatrix*" in the individual corresponds a "*vis mediatrix*" in the whole species—we mean a tendency to check morbid deviations without the aid of extermination. It is a fact that the child of unhealthy parents is not necessarily as

(h) It is gratifying to state that the most distinguished of his many distinguished pupils—one who was also for some time his colleague—Sir Wm. Fergusson, intends to erect a tomb in memory of his old friend.

unhealthy as they are, but, on the contrary, it has a strong chance of being a little more healthy.

If a man has a "bad cold," his child, born nine months after, need not necessarily have a bad cold too! and there are many examples of parents with humpbacks giving birth to very well-made offspring. We do not, of course, infer that marriage of cripples should be encouraged; we would only argue that such marriages should be tolerated—if anything can be said in its favour.

And, whatever may be said upon the question of right that Medical science should exist, it is a fact that it does exist, and by means of it the infirmities of many cripples, invalids, etc., are compensated by enabling them to be not less useful than others. Indeed, there is no fear that the improvement of mankind will materially suffer from over-indulgence towards those who are "a bore to themselves and to others."

Every man will prefer being strong and handsome to being an invalid; every one will rather have healthy children than languid weak ones. So the improvement of our race will be sufficiently guaranteed without resorting to the gentle *abattoir* theory.

The other fallacy from Darwinism which we mentioned is, that the highest object of a man—at least, of a people—should be to struggle for life against his fellow-creatures. Although this doctrine is no necessary consequence of Darwinism, it may be, nevertheless, that the authors of this system should have unfortunately encouraged it by a slight omission. These authors constantly put forward *struggle* as the moving principle of nature; but, to our mind, they do not pay sufficient attention to another principle not less important—I mean *protection*. Struggle is, of course, the moving principle; but struggle is not necessarily struggle among *individuals*—that is, a selfish struggle. On the contrary, nature teaches us that struggle becomes gradually more unselfish: first struggle among individuals, then struggle among families, then struggle among nations. The principle of protection and of *association* becomes more and more visible. The male protects the female, the mother the young, the working bee the whole stock. But still struggle instead of protection between the rich and the poor; still struggle instead of association between nation and nation; still dissolution, no *society*. But here, also, association begins. So the time will come when there will be no other struggle but that of the whole human race, fraternally united, against the brutal forces of heartless inorganic matter!

This view is not condemned by Darwinism, but rather supported by it. Darwinism is no apology for war, no excuse for selfishness.

THE KATIPO, OR POISON SPIDER OF NEW ZEALAND.

By Dr. WRIGHT, of Parnell.

In the month of December, 1868, a person of the name of John Huff, living near my residence, came into the surgery complaining that he had been bitten by a spider on the shoulder. He was in the employment of Messrs. Archard and Brown, of Stanley-street, Mechanics' Bay. He was occupied at the time in carrying firewood to supply the furnace of a brickkiln. The wood was stacked near the kiln in sedge or coarse grass. This happened between the hours of 11 and 12 o'clock a.m. At noon he came home to dinner, sat down to table, but, upon attempting to eat, found he could not open his mouth, or was scarcely able to articulate, in consequence of stiffness about the jaws. He was alarmed, and came into the surgery, when it was difficult to understand what he had to say. All I could learn from him was that he had been bitten by a spider on the shoulder in the Bay. Upon examining the spot I found the surface raised to an extent as large round as a teacup. This elevated surface was white, and was surrounded by a halo of red not unlike an exaggerated wheal of the nettlerash. He complained of considerable pain in the part, and during the examination he became faint and soon almost pulseless; the pulse was unusually slow, scarcely counting more than twelve or fourteen beats in the minute. His countenance and the general surface of the body assumed a hue of extreme pallor, which gradually turned a blue tint. His extremities were cold and flaccid, his respirations almost ceased, and indeed I had fears that he was about to expire. Dr. Pinching being in my house at the time, I called for his assistance. He was astonished at the feebleness and prostration of the patient from such an apparent trifling cause. From his extreme faintness it was necessary to lay him on the floor, when I applied spirits of ammonia to the wound, which had the effect of lessening the swelling and abating the pain. I also administered ammonia and water afterwards combined with brandy in considerable doses. Under this treatment his pulse gradually improved, his circulation and respiration became more natural, as was evidenced by his return to a more natural colour. Although a stout strong man, this state of depression remained for upwards of two hours before he was able to return home. In the evening I found him considerably improved, having taken a slight dose of medicine. For several days he could not return to his work, but complained of great lassitude and nervous depression, which he was sensible of for many days after. It must be evident from the symptoms of this case that the man was powerfully affected by a narcotic and irritating poison, which being absorbed into the circulation affected the heart, brain, and nervous system to a very considerable extent, almost amounting to fatal syncope; that the stimulants, by exciting the heart's action, gradually aroused the excretory functions so as ultimately to remove the poison from the system, for although suffering under its influence for a considerable time it does not appear to have left any permanent effects behind it, for the man has since been in perfect health. In corroboration of the nature of this accident I append the following very graphic description of the bite of the katipo furnished by the Rev. Mr. Chapman, whose long residence as a missionary to the Maori race in the interior of New Zealand renders his observations and opinions of peculiar interest and importance:—"In the course of my sojourn in New Zealand I have had three rather remarkable proofs of the violently poisonous nature of the bite of the katipo. Some twenty years ago a party of natives had taken up a temporary residence at Waihi, near Maketu, their resting-place being near the beach. During the period of their morning's meal a girl was bitten by a katipo in the region of the abdomen. She did not seem at first to suffer much pain, but towards noon inflammation set in, and some native remedies were used; as these had no effect her friends decided to convey her to my residence, and they reached my house about 1 p.m. I discovered, on first seeing her, indications of severe pain, and on examining the wound found a swelling of the size and shape of the obtuse end of a hen's egg. I immediately rubbed the part with strong ammonia; this had no other effect than of lessening the severity of the pain, but failed in decreasing the swelling. I gave the girl also medicine, which was probably salts and tincture of henbane. After this I saw her nearly every day for a fortnight, using such means as appeared to me most suitable. She seemed at this stage to be gradually recovering, but suddenly became faint and pallid, lost all desire for food, and, though offered whatever my house afforded, would only take a little bread and tea, and sometimes a little wine. She lingered in this way for about six weeks, and then died. The next case was the son of a trader resident at Maketu. Three of his boys went up the river on a ramble, and lingered at the Tuma, resting themselves by sitting on the tufts of sedge growing on the sandhills, just above the reach of the tide. These tufts are the principal haunts of the katipo. While so resting one of them was bitten by this insect on the fleshy part of the thigh, it having crawled unperceived up his trousers. The boys were at this time about two miles from home; they returned immediately, but, not thinking the bite of any consequence, delayed applying to me until towards evening, at which time the sufferer became very ill, and the place bitten inflamed. I attended him, using the same remedies as in the other case, but he suffered long, wasting and losing all energy, soon having the appearance of one going into a decline. If I recollect correctly, he was three months before he rallied, and probably another three before he recovered. The next case occurred to that remarkable man, Toke, the chief of the Maketu. We were travelling together up the coast from Whakatane, and halting to dine he seated himself upon a large tuft of sedge. He had not been sitting many minutes before he sprang upon his feet, saying he had been badly bitten by a katipo. He was bitten on the upper part of the thigh. I directed him to lie down; I then dissolved some carbonate of soda in a very small quantity of water, and adding to this some brandy from my flask, I quickly made a crucial incision over the part bitten, and squeezed out forcibly the blood, and then rubbed in this antacid solution, keeping up this action alternately for some time, say ten minutes, when he said he no longer felt the pain. He remarked on rising, 'Had you not been with me, I should have had a long illness.' Only two or three minutes could have elapsed after the bite before a spot about the size of the top of the little finger appeared, and of a peculiar white colour, in strong contrast with the dusky shade of Toke's

skin. He was very careful to secure all the blood I had forced out of the wound I had made by absorbing it in a piece of rag torn from his shirt. This relic, now so doubly sacred, he carried into the middle of a swamp close by, and I saw him stamping it down into the ground very violently, to preserve it from possible desecration. The natives generally avoid sleeping on the seabeach, but have no fear of the katipo half a stone's-throw inland of the seabeach line. I never knew them of themselves use any other remedy than rubbing, and applying hot half-scalded leaves to the part, and as soon as convenient taking the bitten one to the priest, to receive the benefit of his incantations, as they then believed in the efficacy of prayers made to their gods of the hills and valleys." Here, again, are evidences of a narcotic and irritating poison whose absorption into the system produced more permanent effects upon the body. The elimination of the poison had not been so perfect and rapid as in Huff's case. The strength and tone of the constitution in these individuals was, in all probability, not so powerful; hence the elimination of the poison was not so ready, producing a more permanent influence, in all probability causing a degraded condition of the constitution—a blood-poisoning that caused subsequent disease. Again, in all these cases the effect of the poison may in some degree have been modified by the condition of the insect's poison bags, the locality and character of the bite. Under any circumstances, however, it is plain that the deleterious effects of the bite of the katipo and its poisonous character have long been recognised and feared by the natives, and in Huff's case was plainly demonstrated. In Toke's case we can but admire the skill and decision of the missionary who, all alone in a wild and savage land, could have treated the case so actively and with such good effect, he in all probability preventing the absorption of the poison into the system by the means he employed. From all the information that I can collect, the katipo is a small spider of about half an inch to three-quarters of an inch in diameter, measuring across the body and legs, according to the authority of Major Heaphy, who, having been Surveyor-General of the colony, has had abundant opportunity to know the insect, and is familiar with its resorts. The katipo are said to be of two kinds—one with a body dark and glossy, with a marked red spot on the back; the other of about the same size, having a similar round black and shining body, but without the spot. Mr. Taylor in his book, "A Leaf of the Natural History of New Zealand," writes thus: "The katipo—venomous spider—one kind red, and one black with a red spot upon its back. Their bite appears to be very poisonous, occasioning a violent swelling of the part." Major Heaphy is inclined to believe that Mr. Taylor is mistaken in describing a red katipo, but agrees with him that the one with the black body and red vermilion spot upon its back is the most poisonous. A difference in the *habitat* of the katipo would seem to point to a variety—the one inhabiting the sandy beaches of the seacoast, taking refuge among the drift wood and roots of sedge or rushes found there, while the other one with the black body without the red spot may be discovered in the garden or among the rafters of any old building. Major Heaphy says: "I saw one with the red vermilion spot upon its back at Massacre Bay, near Nelson, in the Middle Island, a native there obtaining it for me after a few minutes' search, for a small reward. It was found among the roots of the wiwe or rush around some dry driftwood on the sandy beach. The natives were very careful not to allow it to touch them. They said it would kill them; but on close inquiry they admitted they never knew of a case of the bite ending fatally, although the bite from them was not uncommon. Great suffering, however, they said, ensued, the part swelling considerably." On the original plan of the north shore near Auckland, the seabeach next north of the lake was indicated in a marginal note as very celebrated for the numbers of katipo existing there. The other variety with the black body without the red spot is of about the same size as the other of a dark glossy brown or black colour. This as well as the preceding is a very beautifully shaped insect. The abdomen is, as generally seen from above, perfectly spherical—like a No. 1 shot—very glossy. The legs are compact, not straggling. It is found amongst dead wood in a garden, and, with a slight web, among the rafters of an out-building or loft. The natives have no distinguishing name for either variety. They are both called katipo, to distinguish them from the "punga were were," or common spider. I have never heard of a case of bite from one of these kinds, but the natives say that they are equally venomous with the spotted variety. I am convinced that the one with the red spot indicates a different variety, and is not the result of age or sex, as among hundreds of the black kind I never saw a spotted one. There is no doubt but that several of the arachnidæ are of a poisonous character, that their mandibles are furnished with a curved claw, perforated at the extremity something like the poison-fang of a venomous snake, and used for a similar purpose. A gland furnishes a secretion which is forced through these organs, and is injected into any object that may be wounded by the sharp claw. The fluid which is secreted for the service of the fangs is nearly colourless, and is found to possess most of the properties that exist in the venom of the rattle-snake or viper. It is certain that the bite of a moderate-sized spider will kill a house-fly in a few seconds. Without believing all the stories that have been told of the tarantula, it is certain that its bite is poisonous—that it is of a character similar to that of the katipo. Dr. Graperon states that he saw two cases in which the tarantula proved fatal in the Crimea—one in forty-eight hours, the other in six days. The wound, which was inflicted on the patient's neck, was very painful, and had left a brownish-violet mark. The head, neck, and shoulders were swollen; from clavicle to the false ribs was of a bluish colour; and respiration became difficult forty-four hours after the injury. Scarifications, the actual cautery, oil externally and internally, and ammonia were all employed in vain. A comparison of the symptoms in this case with those exhibited by Huff will surely bear me out in the conclusion that the poisons are similar, at least in their effect.

THE HOSPITALS AND HOSPICES OF PARIS.

It might be thought that all that has to be said concerning the Hospitals of Paris had already appeared from time to time in our columns; but we find various points of interest in a paper from the pen of M. Maxime Du Camp in a recent number of the *Revue des Deux Mondes*, which, we do not doubt, our readers will like to be made acquainted with. These papers form a continuation of an article on the "Assistance Publique," by the same writer, of which we presented an analysis in our number for August 27. Since these articles were written, such a devastating change has swept over Paris, that it is possible some of the information contained in them has passed from the region of existing facts to that of historical data, but it will be none the less interesting on this account, while the preservation of an exact picture of things as they were at so recent a period may be useful for future comparison. We sincerely hope that one report relating to the Assistance Publique may prove unfounded—namely, the dismissal of its director, M. Husson. We have so repeatedly heard testimonies from all quarters of the energy, administrative power, humanity, and prudence of this important official, that we should regard the loss of his services a true calamity, especially in critical times like these, when rash innovations need the tempering of enlightened and progressing experience. During revolutions, however, such changes are often made from other causes than the public good, as witness the displacement and persecution of Libri by Arago in 1848.

We proceed, however, with our notice, passing over particulars which are well known to our readers. The Paris Assistance Publique has under its management 15 Hospitals, 8 of these being general and 7 special, supplying altogether 7693 beds. One of the peculiarities in which some of these Hospitals have an advantage over those of London is the possession of large gardens and grounds (*preaux*) in which the patients have full liberty to wander. Some of them, indeed, as the Hôtel-Dieu and the Lariboisière, either have no gardens at all, or only very small ones; but others, such as the St. Antoine, St. Louis, and the Necker, have them both spacious and beautiful. This last Hospital, on this account, is a special favourite with the Parisian poor. The "movement" in the Hospitals during 1869 was considerable, 93,335 patients having been admitted, of which number 82,282 were discharged and 10,429 died. The total number of days passed in Hospital amounted to 2,457,882, and the expense entailed, at the rate of 2 fr. 73 c. per day per bed, amounted to 6,710,017 fr. The Medical service consists of 84 Physicians and Surgeons, 115 *internes*, and 382 *externes*. The visits, which are made daily, should have amounted to 30,740, but the Medical officers during 1869 were absent 3257 times. Dividing the number of beds by that of the Medical attendants, each of these has, on a mean, to visit 91 patients every morning, the most favoured having only 42, and the most occupied having 150 patients, chiefly chronic cases. It is evident that these numbers cannot be attended to; for if the Medical officer only devoted three minutes to each bed he must yet pass four

hours and a half in the Hospital daily; while, unless under exceptional circumstances, the visit lasts scarcely two hours. All the Hospitals are subjected to the same rules and provided for (*outillés*) in the same fashion, except where the disposition of the edifices compels modifications. In the special Hospitals, however, some differences are observed—as, for example, at the Sick Children's Hospital and the St. Louis. At the former, which, with its groves of lime trees and flower-beds has almost the appearance of a pleasure garden, there are two gymnasia, one being under cover for bad weather. Every variety of exercise is here practised; and if they do not exert much curative effect on the ricketty and other diseased subjects submitted to them, they impart some strength to their muscles, and are a means of amusement. The treatment of chorea by this agency has, however, been attended with highly satisfactory results. Besides this Hospital and the St. Eugenie, also for sick children, the Assistance has also Hospitals at Forges, Laroche-Guyon, and Berck-sur-Mer, at which scrofulous children from Paris, where they are so numerous, may enjoy all the advantages derivable from sulphurous mineral waters and sea-bathing. The St. Louis Hospital is remarkable beyond all things for its magnificent and unequalled system of baths. Those recently constructed are placed in a pavilion shaded by park-like trees, and contain every possible apparatus for submitting the body to any form of aqueous application, whether as water or vapour. One attendant, by turning the handles of different sources of supply, can administer ten baths of different kinds at the same time. Adjoining are rooms for sudation and hydrotherapeutics, and furnace-boxes for administering aromatic or cinnabar fumigations. During 1869 there were given 231,201 baths; and to indoor and outdoor patients at this and the other Hospitals 509,718 baths were furnished during the year. Among other remarkable features at St. Louis, there is a gigantic elm, which was one of the "trees of liberty" planted at the first revolution. At this Hospital, also, there is a splendid museum in the course of formation, which contains already a large collection of plates, photographs, and models of diseases of the skin. Here are the beautiful casts prepared by M. Baretta, copies of which by the artist are now arranged in the Museum of the Royal College of Surgeons, through the liberality of Professor Erasmus Wilson.

M. Du Camp insists strongly on the importance of increasing the space devoted to the exhibition of this museum, as also of organising other clinical museums, material for which has now accumulated, as in MM. Civiale and Depaul's collection. This desirable end, he thinks, will be expedited when the direction of Medical and Surgical teaching is placed in the hands of the Assistance Publique. When he wrote, some months since, such a change he believed to be imminent; but of course now, with many other improvements, it will have to be indefinitely postponed.

"When," he continues, "the Assistance Publique enters on possession of Medical instruction, it will, I think, do well to modify the system by which it recruits its Physicians and Surgeons. At present, when a Doctor has satisfied the exigencies of the *concours* instituted for deciding upon the claims of candidates for the office of Medical officer to a Hospital, he immediately enters upon his functions, and may remain *chef de service* until his 60th, or, in the case of a Professor of the Faculty, to his 65th year. Things are thus so arranged that very few Practitioners are enabled to profit by the admirable field of observation termed a Hospital, and which alone can furnish that positive and experimental instruction without which a man may be a *savant* or a distinguished pathologist, but without which he cannot become a good Practitioner. Now, in the interest of the public, which, before all, calls for consideration, it is good Practitioners who are indispensable, and whose number cannot be too much increased. This result, it seems to me, might easily be arrived at: first, by dividing the services in such a manner that they shall consist of but forty beds; and next, by allowing the Medical officers to retain their posts only for six years in the Hospitals, where they would officiate both as *chefs de service* and professors. In this way, a much greater number of Medical Practitioners and pupils might take part in the only studies that are really fruitful. I am aware that such a measure would greatly increase the expenses, and that it is the duty of the Assistance Publique to carefully husband the fortune of the necessitous; but while payments should still be paid to the *internes*, for whom they are a necessity, the Medical officers might be called upon to give their services gratuitously in exchange for the enormous scientific riches placed at their disposal. Even the most selfish would accept these new conditions without any hesitation, knowing well, as all do, that the title of Physician or Surgeon to a Hospital is the most certain of all means of attracting patients."

Supplementary to the Paris Hospital system is the large establishment at Ivry, where are received incurables and aged and infirm persons who are rejected by the ordinary services as leaving no hope of cure. Then there are the asylums at Vincennes and Vesinet, which were opened, the one in 1857 and the other in 1859—the first for convalescent workmen, and the second for convalescent workwomen—allowing the Hospitals to discharge their patients more promptly, and furnishing these with the means of recovering their strength in pure air. The Assistance Publique has also under its control the *Maison Municipale de Santé*, popularly called *Maison Dubois* in remembrance of the celebrated Surgeon of that name, who for a long period was its Medical attendant—a post now filled by M. Demarquay. It contains 350 beds for sick persons of the middle classes, who pay from 4 to 15 fr. per diem, according to their condition. It is regarded as the model *Maison de Santé*, being far superior in every respect to all private establishments of the kind. The expenses incurred by the acquisition of its extensive grounds and the erections have amounted to well-nigh 4,000,000 fr. Among various other experiments in the treatment of the sick, the Assistance Publique has been paying much attention to *tent-hospitals*. Wooden sheds were first erected in the garden of St. Louis, but from some fault of construction these did not prove successful, being far too hot in summer and too cold in winter. Tents erected in the Cochin have been attended with much better success, and it is intended to extend their employment to the St. Antoine and Necker Hospitals, and wherever sufficient space can be found. Want of space, indeed, is the great obstacle to raising erections on a large scale, owing to the expenditure necessary for securing it for those Hospitals which do not already possess it. The new Hôtel-Dieu, which, if the present events had not occurred, was expected to have been opened in 1872, is an example of this; for superficial space enough not being obtainable, elevation has been substituted, story having been heaped on story, until one is terrified at the idea of the vast numbers who may be engulphed in such a barrack. It has already cost 37,000,000 francs. It is a marvel how, at the present day, it could have been resolved on to erect so vast an establishment in so crowded a locality, where gardens or grounds are an utter impossibility. There were only 21,000 superficial metres at the disposal of the architect, and all agree that he has exhibited great skill in designing the interior, wherein no ward is to contain more than twenty-six beds, however vast it may be, while rooms for from two to four beds will be numerous. Still, whatever success may attend his efforts, there will be none the less surprise at seeing a vast Hospital of 800 beds placed at the side of the old Hôtel-Dieu, which has been itself so justly criticised during the last century. The Academy of Medicine and Society of Surgery were well-nigh unanimous in their opposition to its site, and the Assistance Publique proposed, instead of it, the erection of smaller Hospitals, containing 200 beds, in different parts of Paris. Three circumstances have prevailed in the choice of the present site: there is the religious idea that the principal Hospital establishment of Paris has been for many ages in the immediate vicinity of Notre Dame; the beautifiers of Paris determined that only monumental edifices should adorn this part of the capital; and the Paris municipality converted the Assistance Publique into an instrument for the removal of infected streets.

(To be continued.)

The Hospital for Women, Soho-square.—We hear that the Medical officers of this Institution intend giving a course of evening lectures during the months of January, February, and March. They will be free to members of the Profession. Dr. Protheroe Smith will lecture on Flexions, Torsions, and Displacements of the Uterus; Dr. Alfred Meadows on Uterine Hyperæmia; and Mr. Christopher Heath on Diseases of the Breasts. The first lecture will take place on Thursday, January 12, 1871, in the Board-room, at 8·30 p.m.

A Useful Eye-salve.—Dr. John Williams, of Cork, gives the following formula in the *Dublin Quarterly* of August, 1870:—℞ Arsenici, sulphureta gr. ij.; unguenti citrini ʒij.; axungiæ preparatiæ ʒvj. M. In cases of granular lids, pannus, and obstinate chronic ophthalmia, the upper eyelid should be everted, and a piece the size of a hempseed be applied with a camel's-hair pencil into the superior palpebral sinus.

REVIEWS.

A Digest of Facts relating to the Treatment and Utilisation of Sewage. By W. H. Corfield, M.A., M.B. Oxon., M.R.C.P., Medical Fellow of Pembroke College, Oxford, and Professor of Hygiene and Public Health at University College, London. Prepared for the Committee of the British Association. London: Macmillan and Co. 1870. Pp. 282.

As a compilation from a heap of official reports, mostly Blue-books, this work is creditable to the literary industry of Dr. Corfield; and, inasmuch as it is calculated to popularise the more important facts which they contain, it is likely to prove a useful one. The author very properly calls attention to the distinction between the digest proper and the inferences which he himself draws, and for which, of course, he is alone responsible. And we mention this, because it appears to us that the distinction is an important one. It is not to be supposed that Dr. Corfield has exhausted the subject, or that the last word has been spoken in the controversy which is now being hotly carried on respecting the best mode of utilising town sewage. Whether he is correct in his inferences or not will depend upon whether he has taken fairly into consideration all that has been said or written on the several sides of the question.

The earliest chapters of the book are occupied by an account of the several contrivances known as middens and cesspools, with their modifications, as adopted in various places, by which excremental matters are collected; respecting all which it may be said that the collection, or removal, or both, invariably give rise to a considerable amount of nuisance. In the fourth chapter he discusses the earth-closet system. This chapter is little else than an abstract of Dr. Buchanan's account in the last-issued volume of the Reports of the Medical Officer of the Privy Council. As applied to towns Dr. Corfield considers that "the great practical objection, which must entirely condemn the system," is that it only removes a small part of the refuse matter, leaving the liquid and more valuable portion of the sewage to be dealt with in some other way. In addition to this, there is the obvious objection arising out of the difficulty of supplying to any large community a sufficiency of earth appropriate for the purpose. That it is well adapted for the use of small communities and isolated houses, however, we hold there can be no manner of question. Some form or other of the water-closet is the arrangement which alone meets the approval of the author, who holds that, by simplifying the contrivance, it may be made entirely applicable to the circumstances of the most ignorant and careless population. We wish we could altogether think so. We doubt if Dr. Corfield has ever tried to make the system applicable to a court inhabited by low Irish. He talks about authoritative management and supervision. We wonder if he has any idea of the sort of supervision that is necessary under such circumstances, or of the hundred-and-one ways in which ignorant and mischievous people contrive to render the whole arrangement, however simple, an intolerable nuisance. The amount of management required is such as no sanitary authority would undertake. We quite admit that, where properly arranged, and where the users are cleanly—where, moreover, there are proper facilities for due sewering—the water-closet system is preferable to other systems, and, on the whole, less likely to get out of order; but it is not applicable to the circumstances of all towns, of all parts of some towns, or to all populations.

From water-closets the passage to the subject of sewerage is natural and easy. The chapter on the subject contains the accepted doctrines as to the mode of constructing sewers and of ventilating them. The author has managed to get a good deal of information on the subject into a small space; but neither this nor the following chapter on the sanitary aspects of the water-carriage system need detain us, for there is nothing in them not perfectly familiar to practical sanitarians. The same may be said in respect of the chapters in which the author treats of the pollution of rivers and drinking-water by sewage gaining access to them.

The most important part of the book is embraced by the last three chapters, in which the utilisation of sewage is considered, together with the subject of irrigation and sewage farms. All agree with the author as to the absurdity of throwing away excremental matters, which, by proper arrangements, may be reconverted into food for man and beast. But all do not agree as to the arrangement which is most proper and least objectionable with this object. The two methods between which town authorities usually have to decide are what are known as precipitation processes, and the plan of irrigation and sewage farms. The objects to be attained usually are three—1. To purify the sewage by separating from it all decomposed and decomposable matters, together with (as far as practicable) the saline matters useful for agricultural purposes, so that the effluent water may be allowed with safety to flow into a watercourse. 2. The utilisation of these arrested matters so that the expenses of purification shall be repaid, or more than repaid, by the sale of the manure. 3. The carrying out of the plan without producing nuisance or endangering public health. The question to be decided is—which of the two processes is preferable on all three grounds? On all, Dr. Corfield decides against the precipitation processes. His conclusion is as follows:—"All these precipitation processes do, *to a certain extent*, purify the sewage, and prevent the pollution of rivers, chiefly by removing the suspended matters from the sewage; but they all have a very large amount of putrescible matter in the effluent water, and at least all the ammonia contained in the sewage (sometimes they add to it); the greater part of the phosphoric acid is precipitated by some of them, while they increase the hardness of the river water—a matter of great importance if the stream be a small one. The manures they produce are in every case very inferior, as may be expected from the known value of the sewage constituents that can be precipitated." He quotes the Report of the River Pollution Commission in support of the statement that the lime process failed at Blackburn to prevent the pollution of the river, and also, against the processes known as Holden's and Bird's. He agrees with the Commission, also, in asserting that the A.B.C. process fails to purify sufficiently to warrant the effluent water being discharged into a stream; and, moreover, asserts that, at Leamington, the neighbours have complained of the nuisance arising from the drying of the manure. Without presuming to decide the question, we would suggest to Dr. Corfield whether he has not been too hasty in his condemnation of precipitation processes. We would remind him that some practical men, equally scientific and of large experience, differ from him very much in this respect; that even the removal of the solid and decomposable matters is no trifling benefit, inasmuch as it is these matters, and not those held in solution, which form, in the opinion of such men as Dr. Frankland and Dr. Letheby, the noxious part of sewage as discharged into rivers; that such matters as are not capable of deposition on the bed of the stream rapidly undergo destruction by oxidation, and that probably, in this view of the case, Dr. Letheby is not far wrong when he says that the water is "practically" defæcated, and so the most important end is attained which sanitary authorities have in view. We imagine no unprejudiced person will maintain that the manure legitimately proceeding from the precipitation processes is as valuable as it would be were all the products retained, and the water discharged pure. Any nuisance proceeding from the drying of the manure, as in the A.B.C. works at Leamington, might readily be obviated by contrivances which any engineer or health officer accustomed to deal with such questions could suggest. But no one pretends to assert that pestilential diseases have ever arisen in proximity to the works, or in any way connected with them, which is more than can be said of the irrigation plan which the author of this book favours. We think that the opinion of Dr. Letheby is worthy of more consideration than Dr. Corfield is inclined to give it. This opinion is that, by the lime process properly carried out, or by any similar process of defæcation, the sewage of towns may be easily and safely dealt with, so as on the one hand to ensure its purification before it is discharged into a running stream, and on the other, to avoid the many dangers of irrigation." Dr. Corfield, then, regarding with disfavour the various precipitation processes, gives in his adhesion to the irrigation plan recommended by the Royal Commissioners, absolutely and without reserve. He indorses all that has been said in favour of it, and repeats all that has been said in reply to objections to it. Nothing can be better, view the plan how you will; the purification of the sewage is perfect, the value of irrigated land is enormously increased, and the absence of nuisance on sewage farms is such as to surprise everybody. So far from public health in the neighbourhood of the farms being damaged, the tendency of experience is rather that the sewage fields are advantageous; but the proviso is that the farms shall be carefully managed—that is to say, theoretically, irrigation is the right thing, and ought to produce no nuisance, ought not to produce swamps, ought not to produce typhoid fever or endanger public health, and always ought to pay. But there are those who maintain that practically the system is not so successful as its advocates hold it is or ought to be. Dr. Letheby tells us that land irrigated

with sewage is always a fetid, swampy morass of the most offensive description, and that all the sewage farms which he has visited *unexpectedly* he has found to answer to this description; he adduces instances, some of which are notorious, in which the development of typhoid fever and dysentery has been unquestionably traced to their neighbourhood, while wells have become polluted by soakage from irrigated grounds. He tells us that even on the land of the model and unexceptionable farm at Aldershot, he saw everywhere masses of fæcal matter waiting for the first heavy shower of rain to wash them away into the nearest outfall, while the occupants of the houses adjoining the farm asserted that in times of flood the whole roadway was covered with sewage matters. The inference he draws from his observation is "that the process, although susceptible of good results, is rarely so in practice, unless it receives an amount of attention that makes it a serious business." He adds that "all authorities agree that the success of this process is dependent upon a combination of circumstances which is not always attainable, and upon the strictest care and supervision." And it is just here that the main difficulty in adopting the process lies. We are tempted to quote the words of Dr. Corfield when arguing against "the dry earth-closet system." He says, as to this, "that no scheme of town drainage can be recommended which is dependent on mechanical arrangements of great complexity, and in which serious risks to health would be incurred if any fracture or defect were to arise in the machinery used, or *any of those failures were to happen which are necessarily incidental in practice to such a scheme.*" P. 102. *Mutatis mutandis*, is not a similar line of argument applicable to the disposal of sewage by irrigation? We are told that what Dr. Letheby saw, and what Dr. Claughton, of Carlisle, and others have observed, as to typhoid fever in connexion with irrigation farms, were accidental or unusual occurrences, due to bad management. But we are inclined to ask—Is a system worthy of recommendation for universal adoption which is liable to such accidental disturbances of its successful working? We ask, is any Medical man, is Dr. Corfield, so convinced of the salubrity of a sewage farm that he would select its vicinity for his own residence, or for that of any one in whose good health he was interested? Would he regard its neighbourhood, even, as a matter indifferent? No. The question of the best mode of disposing of town sewage is not yet settled; certainly Dr. Corfield has not settled it. Probably it will turn out that the solution will lie in a compromise between the rival systems —that as earth-closets may in some circumstances be preferable to water-closets, so the precipitation processes, as applied to liquid sewage, may be adapted to use for one town, and irrigation carefully conducted for another, while for a third it may be desirable to combine the two; and that the one or the other may be preferable according to the season of the year. Neither system should, with present knowledge, be absolutely condemned, neither over praised, especially to the disparagement of the other.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, November 9.

The vacancy in the Council of the Royal College of Surgeons in Ireland, caused by the resignation of Mr. James Barker, was filled on the 3rd inst. by the election of Dr. Mapother, Professor of Physiology in the College. On the same day the session was opened at the Mater Misericordiæ Hospital with an introductory lecture by Mr. Hayes, one of the Surgeons of the Institution. In the course of his observations, Mr. Hayes stated that the fever wards were now open, and isolated from the other portions of the building. He also referred to the special advantages enjoyed by the patients in that Institution in the attendance of the Sisters of Mercy, who were ever ready to sacrifice time and labour where, by so doing, health could be restored, pains assuaged, or the path which leads to the world beyond the grave smoothed.

In the afternoon the introductory address was delivered in the Catholic University Medical School, Cecilia-street, by Mr. Tyrrell, Professor of Surgery.

The opening lecture was delivered at the Meath Hospital and County Dublin Infirmary, on Monday, the 7th inst., by Dr. Wharton, one of the Surgeons of the Hospital. The lecturer's remarks were directed chiefly to the students of the first and second years, and conveyed excellent advice as to the course of their studies and the books which they should consult. Dr. Wharton advocated a subdivision of the curriculum and increased frequency of examinations, so that one should be held in specified subjects at the end of every session, or at least at the end of the second, third, and fourth sessions. The University of Dublin had, he said, taken a step in the right direction by recommending an order of study, and he trusted that this might prepare the way for the enactment of a by-law, which all licensing bodies would enforce. He thought that all the Hospital authorities should lay down some such regulations as that to which he had alluded, and certificates should not be granted in any instance unless on sufficient answering. By that method, too, an end would be put to the present prize examinations, and the prizes would be awarded only to those who had given the strongest proof of their acquaintance with what had been seen at Hospital. Finally, he would give his hearers a few words of advice on Hospital attendance, and that would be—to adopt a kind and gentle bearing towards the sufferers they attended, who were generally taken from humble life; to fix their hearts upon the work in which they were engaged, and feel the nobleness of the Profession for which they were preparing. In order, also, to do their work well, and to retain their mental powers in vigour, they should be careful to preserve their bodily health, and to attend to sanitary laws, regularity of living, wholesome food, exercise, and recreation; let them cultivate elevated tastes, refine their minds, strengthen their faculties, restrain their passions, and remember that none deserved the name of man who forgot the responsibility resting upon every member of the human family.

On the same day the session was opened at the Adelaide Hospital by Mr. B. Wills Richardson, who dwelt upon the importance of the opportunities afforded in the wards of a Hospital for the observation of disease. Something more, however, would be required of them than mere observation—the mind, in observation, being only a spectator. They should test the accuracy of observation by physical examination. It had been recently remarked, by the writer of an able leader in the *Times*, that so long as the Surgeon merely looked at the outward shape and fashion of the human frame, and now and then picked a hole in or scraped its outer coat with a scalpel, he was a mere tradesman and quack, and his calling proportionately poor and mean. But when he passed from the outside of the wondrous house in which we all dwell, and penetrated into its innermost recesses; when he measured and surveyed it; when he undertook to renovate and restore it; nay, when he was bold enough to mutilate and deface parts of it in order that the rest might remain and live; when he learned after long and laborious inquiry, after generations of thinkers—each of which, as it came, caught up and carried on the lamp of science when its predecessor dropped it—when he learned so many of the secrets of humanity only to find how great his ignorance still was, and how much remained for him to learn— then Surgery had passed into a divine Profession, and to the knowledge of a sage he had united the humility of a child. The lecturer then referred to the immense value of practical observation. He said it was the perfection of practical Surgery to know when to abstain from operative interference. A properly trained Surgeon applied himself to learn the powers of nature and of art which enabled him to correct the former when she was in error, and to assist her movements when they were salutary. The essentials of Surgery consisted in knowing the cases requiring operation, the accidents which follow it, and their treatment—which must vary according to their nature and diversity. If they trusted merely to books they might at any moment have to endure terrible embarrassment when called upon to act solely on their own responsibility. Merely walking the wards of an Hospital and taking passing glances at the sick would not avail them in acquiring practical knowledge. They would have to investigate, and take, on a systematic plan, written notes of cases at the bedside. There was a subject of great importance in connexion with their future *status*—namely, general education. He would impress upon them the necessity for self-culture. Having pointed out the subjects to which students should direct their attention, Mr. Richardson proceeded:—It was greatly to be regretted that but little attention was given to the study of modern languages by those who presided over education in these countries. If they (the students) had not already done so, they should endeavour to master French, and, if possible, German, many most excellent works connected with Medical subjects being written in these tongues. As to their Professional education, of which anatomy and physiology are the foundation, he entreated them not to forget them; an intimate acquaintance with the structure and functions of the human

body being essential for successful practice. In truth, the present high position which Medicine and Surgery occupy was greatly to be attributed to an advanced knowledge of anatomy and physiology. They should not believe that anatomy and practice are incompatible with each other. He need only mention the names of Sir Astley Cooper, Sir Benjamin Brodie, and our own Abraham Colles, all of whom were celebrated anatomists, and derived large incomes from the practice of their Profession; but he did not advocate a too exclusive attention to either anatomy or physiology, which might probably occupy too much of the time required for clinical study.

In conclusion, Mr. Richardson referred to the especial advantages afforded by the Adelaide Hospital in the wards allocated to the treatment of the diseases of children. If they considered the frequency, fatality, and occasionally exceptional nature of the diseases of children, they must feel that the committee were deserving of public gratitude for having increased the facilities for the study of the diseases of early life in the city. He believed that before the opening of their children's wards there was in Dublin but one recognised clinical Hospital (St. Vincent's) where special instruction was given in the diseases of children. It would be an irreparable omission on their part to neglect the facilities here afforded of making themselves familiar with infantile diseases; when they remembered that about one-third of their patients would probably be children, and that even in the midst of comfort and civilisation about one child in every five died within a year after birth, and one in three before the completion of the fifth year, they would see the immense importance of studying the diseases of the young. Having described the arrangements in the Hospital for the study of ophthalmic and aural diseases, and the advantages presented by the extensive dispensary attached to the house, the lecturer gave some excellent advice as to the student's professional reading, and as to his choice of companions, and concluded by impressing upon his hearers the importance of possessing gentleness of manners and a kind heart, for if they possessed these qualities their patients would feel their approach like that of a guardian angel ministering to their relief. Youth, it had been well said, was the season when sentiments of liberty, of generosity, and of candour most easily found their way to the heart, and if they did not reach it then they never would afterwards.

GENERAL CORRESPONDENCE.

UNITY OR DUALITY OF SYPHILITIC SORES?

[To the Editor of the Medical Times and Gazette.]

Sir,—It is a provoking thing to the student that no sooner has any doctrine been apparently settled on an immovable basis, and accepted as the "doctrine of the schools," than some turbulent spirits set to work and organise new experiments and collect new inferences, and away goes the orthodox doctrine, like any one of the forms of Government that have prevailed in France during the last eighty years. Once upon a time, Ricord's doctrines held the sway: syphilis was one and indivisible; the test was inoculation on the patient's body. Then came the dualists with their doctrine that there is one true infecting syphilitic sore, and one false or non-infecting sore; that the infecting sore was known by its "characteristic induration," by a slight enlargement of a chain of lymphatics without suppuration, and by constitutional syphilis as the climax. As for the non-infecting ulcer, it might be very severe and destructive, and was often attended with a suppurating bubo, but had not a hard base, and did not lead to constitutional symptoms. Moreover, as the test: the true syphilitic sore establishes a diathesis, during which it cannot be reinoculated in the patient any more than the vaccine can, so long as its influence lasts; whilst the soft or false chancre is capable of being inoculated on the patient through an almost indefinite series. I am not going to attempt to write a treatise, but merely to sketch the "doctrine of the schools" on this intricate subject—a doctrine clear and consistent enough, but possibly "false as fair."

Of course there were "exceptional" cases, with ready explanations to match. If a so-called "true" chancre was accompanied with suppurating bubo, that was said to be through the application of caustic, or some other local irritant. "True" chancres could also be inoculated on the same patient, *if irritated* and made to yield pus. Soft chancres, it was admitted, "might" be followed by constitutional syphilis, but then (it was suggested) there was a hard sore underneath the soft one, and masked by it, or a hard one concealed somewhere else; or the patient might have had a hard chancre a year ago, and the evolution of its secondaries might be merely coincident with soft chancre from a recent peccadillo; or, again, a man's grandfather might have been poxed, and the secondaries appearing after a soft chancre might be the fruit of this ancestral misdemeanour.

My object in inflicting this letter upon you is to call the attention of your syphilitically-interested readers to a set of experiments by Mr. Morgan, of Dublin, narrated in the August number of the *Dublin Quarterly Journal of Medical Science*, and to ask whether they are reconcilable with the "doctrine of the schools," and, if not, which ought to go to the wall, the doctrines or the facts?

One point there is which Mr. Morgan well brings out—not a new one, for Mr. Jeffrey Marston, an army Surgeon, had made it clear before—that is, the intense syphilitic contagiousness of the secretions of the vagina in a syphilised woman; not the secretions of an *ulcer* of the vagina or cervix uteri, but the purulent discharge of the unbroken surface: so that all the solids and fluids of a syphilitic person seem to be poisonous, and wherever a discharge is established, *that* can propagate the poison of syphilis. Thus, the discharges from the urethra of a syphilised man and of the vagina of a syphilised woman may constitute a kind of syphilitic gonorrhœa, and infect the opposite sex. But this by-the-bye.

The thing I would call your readers' attention to is the fact shown by Mr. Morgan that the product of inoculation with the vaginal discharges of a patient labouring under syphilitic infection is a chancroid or "soft" sore. These inoculations were made on the patient herself, or on other patients already under the influence of the syphilitic poison. A second fact is the number of soft sores, so universally followed by infection that it must be most dangerous to rely on mere softness as a diagnostic sign. A third is the extensive inoculability of these soft sores on the patient already syphilised.

Lastly, let me ask why are "hard" sores rare in women? Mr. Morgan's conclusion is that generally the sore in the female is non-indurating, pus-secreting, and no doubt inoculable on the patient, yet thoroughly infecting.

Small-pox knows no difference in sex. Is it otherwise with the greater pox? I am, &c. A Student.

London, November 1.

ALOPECIA.

Letter from Dr. J. M. Winn.

[To the Editor of the Medical Times and Gazette.]

Sir,—I read Dr. Crisp's account of a case of alopecia in this week's number of the *Medical Times and Gazette* with much interest. Dr. Crisp inquires whether any of your readers had ever met with a similar instance. Several years ago, I was consulted by a young man who had lost every particle of hair on his body. He presented a curious appearance, his head being literally "as bald as an egg"—as Charles Dickens humorously described one of his characters—eyebrows, whiskers, beard, etc., all had vanished. I related the case at the Medical Society, and it excited a good deal of discussion. My patient had been a teetotaler, and a great smoker. I stopped his tobacco, and ordered steel and porter—no local application. Under this treatment his hair soon grew again.

I have very recently had a case of partial alopecia under my care, which, as in the case mentioned by Dr. Crisp, commenced by the hair falling off from the head in large patches. He was a strong young man, with a profusion of dark hair and whiskers; and the only symptom of illness was an occasional sensation of swimming in the head. I ordered a free application of lunar caustic to the bald patches, and prescribed steel. The hair soon began to grow, but the new hair was at first quite white. It soon, however, became darker. The swimming sensation would seem to indicate that the *fons et origo mali* of this affection lies in the nervous system—where, I am strongly disposed to think, we must look for the origin of most diseases.

I am, &c. J. M. Winn, M.D.

Harley-street, October 29.

Royal Institution of Great Britain.—At the general monthly meeting, held on Monday, November 7, 1870, Sir Henry Holland, Bart., President, in the chair, John Forbes, Esq., M.R.C.P., F.R.C.S.; Thomas Miller Rickman, Esq., F.S.A.; the Rev. Arthur Rigg, M.A.; and Thomas Taplin, Esq., were elected Members of the Royal Institution.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 8, 1870.

DR. BURROWS, F.R.S., President, in the chair.

SPECIAL GENERAL MEETING.

A PAPER on Electrolysis in the Treatment of Hydatid Cysts of the Liver, by Dr. FAGGE and Mr. DURHAM, having been read and discussed (these will be published hereafter), the meeting, in accordance with a notice to that effect, was declared special for the confirmation or rejection of the motion made by Mr. Paget, seconded by Dr. Quain, and carried at last meeting. The minutes of the former meeting having read and confirmed,

The PRESIDENT pointed out what they had to do. By virtue of the 5th clause of the 18th chapter of their by-laws, any motion of which no notice had been given beforehand, having been carried at a general meeting, had to be confirmed by a vote at a subsequent meeting, made general for that purpose. What, therefore, lay before them was simply the confirmation or rejection of the resolution—"That the Council be requested to consider whether, while maintaining the charter and constitution of the Royal Medical and Chirurgical Society, it may be possible to obtain a more complete co-operation with the Pathological, Obstetrical, Clinical, and Epidemiological, or other Societies for the promotion of Medical science." No amendment was admissible.

Dr. ROBERT LEE rose, and moved that the resolution be confirmed.

Dr. MURCHISON, in seconding the motion, reminded the meeting that the resolution had been moved and seconded by the two Presidents of the two most important societies they were called upon to amalgamate.

Dr. ANDREW CLARK asked if these were acting in their public or in their private capacities.

Dr. MURCHISON said in their private, certainly; yet both had been delegated by their respective societies for the consideration of the scheme.

Dr. HABERSHON asked if he could move the contrary to the motion before the meeting.

The PRESIDENT pointed out that this would be useless; the vote would declare *pro* or *con*.

Dr. GREENHOW, in rising to oppose the motion, did so in no factious spirit. He was not convinced that the motion represented the feelings of the Society. The proposal had really originated with this Society; much time had been spent over it, and they were bound to go on with it. He thought that Mr. Paget's authority carried weight in making the motion. He asked the Society to consider whether the scheme ought to be strangled in the place of its birth.

Dr. WEBSTER thought this primary scheme to form a new society was not carried, two-thirds of those present not having voted in its favour.

Dr. BARCLAY hoped the motion would not be carried. The proposal now made had already been tried, and it had failed. The Pathological Society had determined against it. It would be a pity were the Society, which had all through shown so little selfishness in the matter, to show selfishness at the last. Were the resolution not confirmed, it would merely throw back the whole affair on the hands of the Council, who could act as they pleased.

Dr. MOXON thought Dr. Greenhow's assumption as to Mr. Paget's influence without foundation; it was rather the weight of the leading members of both Societies which had created the feeling. When the scheme passed through the Pathological Society, it was by means of those who rarely attended the Society. Had it rested with those by whom the work of the Society was done, he questioned greatly if it would have passed. Was there any hope of its now being accepted by the Pathological Society?

Dr. PITMAN thought the whole thing should be considered from a practical point of view. Their aim was the formation of one great Society, and to do this there must be unanimity. They proposed to extinguish the Royal Medical and Chirurgical Society, to give up its property, and to form a new body. This could only be done by giving up their old charter, and obtaining a new one, and this they would certainly not get in the face of opposition. They could not carry out the scheme, even if it was thrown back on the Council. He deeply regretted the time and the labour lost; but a time had come when it was more dignified to withdraw than to push forward these schemes. Nevertheless, he was sanguine that in time such a body would exist.

Mr. BROOKE thought their course was not a dignified one. There was no chance of success, it was true; but this throwing overboard of their own schemes was not becoming. They should let it go to the Pathological Society.

Dr. WYNNE WILLIAMS denied that it was not the scheme of the delegates which was rejected by the Obstetrical Society; it was the scheme of this Society.

A vote having been taken, 41 were for the confirmation of the resolution and 36 against it. Thus it was declared carried.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 1, 1870.

RICHARD QUAIN, M.D., President, in the Chair.

MR. W. ADAMS exhibited an Exostosis removed from the posterior superior angle of the scapula. It projected beneath the scapula, and elevated it on the ribs. It was taken for an enchondroma, but turned out to be partly bony. It began to grow when the child was two or three years old; he saw it at the age of 11. He found removal of a small portion quite sufficient. Similar growths occurred on the ilium.

Mr. HULKE asked if it was not always the rule that cartilage should precede bone in such tumours. He thought they were not always symmetrical.

Mr. NUNN exhibited a specimen of Atrophy of the Uterine Walls, with an intra-uterine fibroid growth. Some years ago he had exhibited a large fibrous tumour, supposed to be ovarian; others thought it might prove uterine, the uterus being absorbed. This case illustrated the possible origin of tumours in such a fashion. It was to be noted that the cervix was quite normal, although the body was nearly absorbed. In the former case there was no body, but a cervix only.

The PRESIDENT asked if that would not be due to the direction of the pressure.

Mr. NUNN thought it rather pointed to independence of origin and function.

Mr. F. MASON exhibited a Congenital Papillary Tumour, removed from a patient aged 20. It grew on the abdominal wall, half-way between the umbilicus and Poupart's ligament, and gave rise to no pain, only a scanty, but ill-smelling, discharge, which caused her to wish it removed.

Dr. HILTON FAGGE exhibited the Liver of a patient who had suffered from Scleriasis. She was aged 67, and the disease began eighteen months ago. It spread pretty rapidly over the lower limbs, hands, face, and even the eyelids. She could not move her jaws, and really died of starvation. He found the skin hard like a board, but separated distinctly from the muscles. The new formation was chiefly in the skin, which was much thickened; and although its origin was not quite clear, there was a distinct under-surface to the skin. The cuticle, in certain parts, was like that of ichthyosis, and the connective tissue contained many elastic fibres. The internal organs were healthy, but their connective tissue seemed harder than usual. This was especially so in the liver, where it seemed to have undergone some chemical change.

Dr. TILBURY FOX asked if there was any disease of the lymphatics. It was said that the change took place in the true skin only.

Dr. FAGGE replied that the cuticle was certainly altered in some parts, though not generally. He could not say as to the lymphatic system being affected.

Dr. DICKINSON had a patient, now ill a year, and aged 30. The scleriasis began on the abdomen, whence it spread. The face was peculiarly rigid, and the hands almost absolutely so.

Mr. F. CLARKE asked if the skin fulfilled its function. That might cause death.

Dr. GREENHOW asked if there was any impairment of sensation.

Dr. FAGGE said there was little perspiration, and apparently no loss of sensation.

Dr. DICKINSON said that in his case the skin was cold and stiff. The loss of sensation was not distinct.

Mr. ARNOTT exhibited a specimen of Cancer affecting an imperfectly-descended Testicle. The patient, a butcher, aged 50, was healthy. About fifteen months ago he was hurt by a calf, after which he noticed his left testicle swollen and tender.

Last May it began to increase rapidly, and it became more painful. It looked as if the disease was spreading up the cord. There was no evidence of any constitutional taint. He tapped the scrotum of two or three ounces of fluid, but a hard mass, enclosing the testis, was left behind. He found the tunica vaginalis thickened, and open towards the abdominal cavity; nevertheless, he determined to remove the whole, which was done, and the patient did well. The testis was medullary.

Dr. Murchison said there were several cases on record of cancer in an undescended testis in the abdominal cavity. Some were of very rapid growth. In a former recorded case there was also some injury as a starting-point.

In reply to Mr. Barwell, Mr. Arnott said he had carefully examined the tunica vaginalis. The thickening was merely the result of chronic inflammation; but where it abutted on to the cancerous mass, it contained some large cells, and ended in a purely cellular structure.

Dr. Dickinson said cancer was common in undescended testes. Johnson had collected many cases.

Mr. Davy thought that ordinary peritonitis did not follow interference with a thickened peritoneum.

Mr. Duncan showed part of a watch removed from a man wounded at Sedan. There was a large suppurating tract over the ilium, a ball having entered between the two spinous processes. As this did not heal, it was explored, and the portion of the watch discovered and removed. This was twenty-one days after the battle. The man did well.

Dr. Whipham exhibited a specimen of Rupture of the Transverse Ligament, with caries of the cervical vertebræ. Death was sudden. There was a large extravasation of blood under the arachnoid, the origin of which was uncertain. The parts were tolerably healthy, except at the point of rupture. The blood probably came from the dislocation of the odontoid process. One kidney weighed 10⅓ oz., the other only 3¼. She had always supported her head when she moved.

The President had a somewhat similar case that day. The patient had an apparatus constructed for protection, but it had been removed to apply a poultice, when death took place instantaneously.

Mr. W. Adams thought the blood extravasated the most curious part of the case.

Dr. Green exhibited a specimen of Pulmonary Aneurism, from the body of a girl, aged 18, who had been under the care of Dr. Headland. She had been suffering from phthisis, and died of sudden hæmoptysis. In the apex of the left lung there was a very large and rugged cavity, and below was a smaller one containing the aneurism, which was of the size and appearance of a Morella cherry.

In reply to Dr. Powell, Dr. Green said the disease was more advanced in the left than in the right lung, but there was no chronic induration.

Dr. Tilbury Fox exhibited two specimens of Madura Foot. One was of ten years' date, but was active only two. The bones only were preserved; they looked necrosed. The other was of two years' standing. In amputating one, the tibia was soft a long way up. There was no trace of fungus now, but many fish-roe-like particles, apparently crystallised fat. The fibres were altered so as to look like fungi. It looked as if the disease began in the bone.

Mr. Hulke thought that against this theory was the fact that the first affection was a pimple on the skin.

Dr. Moxon thought there was no great alteration in the neighbourhood of the channels in the former specimen exhibited. The roe-like bodies were very interesting.

The specimens were referred to Drs. Bristowe and Fagge and Mr. Arnott.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 8th inst., and, when eligible, will be admitted to the Pass Examination :—

Archer, E. L, of St. Bartholomew's Hospital.
Bentley, A. J. M., of Edinburgh.
Carey, R. J., of University College.
Corbin, E. K., of Paris and St. Thomas's Hospital.
Corrie, A. T., of St. Bartholomew's Hospital.
Dryland, William, of Guy's Hospital.
Foster, W. J., of Birmingham.
Fretwell, Edward, of Sheffield.
Hawthorn, W. T., of the London Hospital.
Heald, G. H., of Leeds.
Hendry, J. A., of Liverpool.
Hues, J. J., of Birmingham.
Johnson, A. J., of Toronto and St. Thomas's Hospital.
Jolly, Robert, of Edinburgh.
Murdoch, Daniel, of Cork and Guy's Hospital.
Oldman, Charles, B.A. Cantab., of Cambridge & Guy's Hospital.
Palmer, C. De M., of Dublin.
Perrigo, James, of McGill's, Montreal.
Raines, Charles, of Hull.
Ransford, T. D., of Guy's Hospital.
Rendall, William, of Guy's Hospital.
Stewart, R. W., of St. Bartholomew's Hospital.
Tooze, F. G. R., of University College.
Webster, J. H., of Edinburgh.
Whistler, W. McN., of Pennsylvania.
Williams, William, of Guy's Hospital.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 3, 1870 :—

Clarke, Joseph Hirst, Sheffield.
Hale, Edmund Thomas, Abertillery, Newport, Mon.
Marshall, John, Old Kent-road.
Willan, George Thomas, Melton Mowbray.

The following gentlemen also on the same day passed their First Professional Examination :—

Maybury, Horace Mansell, St. Thomas's Hospital.
Morgan, Edward Rice, King's College.

At the recent Examination for the Prizes in Materia Medica and Pharmaceutical Chemistry annually given to Medical Students, the successful candidates were :—

First.—Philpot, Joseph Henry, student of King's College, London—a Gold Medal.
Second.—Warden, Charles James Hislop, student of St. George's Hospital—a Silver Medal and a Book.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Eastes, George, M.B. Lond., F.R.C.S. Eng. (Exam.)—Surg.-Accoucheur to the Western General Dispensary, *vice* A. Wynn Williams, M.D., Physician-Accoucheur, resigned.

Hollis, Alfred, M.B., M.R.C.S., etc.—House-Surgeon to the Dorset County Hospital, *vice* F. W. Young, Esq., resigned.

Oliphant, John, M.D.—Medical Officer to the North St. Margaret's District of the Leicester Union, *vice* H. Nuttall, M.D., resigned.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—In accordance with the provisions of her Majesty's Order in Council of February 22, 1870, the undermentioned officers have been placed on the retired list of their rank from this date :—Assistant-Surgeons: Dr. Henry S. Smart, Dr. William Johnston, Dr. George Monteath.

Chelsea Hospital.—Surgeon J. A. M'Munn, M.D., on the half-pay list, to be Physician and Surgeon.

Medical Department.—Surgeon Allen Bryson, M.D., from the 63rd Foot, to be Staff Surgeon, *vice* George Peacock, M.D., appointed to the 63rd Foot; Assistant-Surgeon James Atkinson, from the 95th Foot, to be Staff Assistant-Surgeon, *vice* George Traynor, appointed to the 46th Foot; Assistant-Surgeon Thomas Sillery Cogan, from the 51st Foot, to be Staff Assistant-Surgeon, *vice* Robert Gillespie, M.D., who exchanges.

51st Foot.—Staff Assistant-Surgeon Robt. Gillespie, M.D., to be Assistant-Surgeon, *vice* Thomas Sillery Cogan, who exchanges.

63rd Foot.—Staff Surgeon George Peacock, M.D., to be Surgeon, *vice* Allen Bryson, M.D., appointed to the Staff.

BIRTHS.

Bensley.—On September 27, at Rampor, Beauleah, the wife of E. C. Bensley, F.R.C.S., of a son.

Hardesty.—At Balgay-terrace, Lochee, Dundee, on November 8, the wife of J. Jeffrey Hardesty, L.R.C.P. and S.E., of a son.

Langford.—On November 6, at 7, Ford-park, Plymouth, the wife of Edwin C. Langford, Surgeon, of a daughter.

MARRIAGES.

Amoore—Duke.—On November 1, at St. James's Church, Croydon, Duncan Wrightson Amoore, of Hastings, to Fanny, younger daughter of the late Walter Duke, Surgeon, also of Hastings.

Burton—Hill.—On November 3, at St. Philip's, Kensington, Thomas Burton, Esq., of 48, Richmond-road, West Brompton, to Rosa Anne, third daughter of Dr. Gardiner Hill, of Earl's Court House, Old Brompton.

Cortie—Moore.—Recently, at St. Mary Magdalene's, Peckham, William Richard Cortie, L.R.C.P., to Mary Julia, second daughter of Hastings Moore, Esq., of Peckham.

Curtis—Spong.—On November 1, at St. Michael's Church, Limerick, George Curtis, Assistant-Surgeon of the Royal Naval Hospital, Plymouth, to Gertrude Agnes, eldest daughter of George M. Spong, Esq., of Limerick.

McCarthy—Bremner.—On October 17, at Bray, co. Wicklow, Denis Augustus McCarthy, L.R.C.P. Edin., R.N., to Christina, youngest daughter of Alexander Bremner, Esq., Queenstown, Ireland.

MALTBY—WATKINS.—On November 7, at St. Giles's, Cripplegate, William Flower Maltby, Esq., to Mary Ashwell, daughter of John Watkins, F.R.C.S., of 2, Falcon-square.

TIPPETTS—DEACON.—On October 1, at St. Paul's Church, Landour, East Indies, Alfred M. Tippetts, Surgeon 5th Northumberland Fusiliers, to Mary Elizabeth Isabella D'Courcy Deacon, only child of the late Colonel Charles Clement Deacon, 61st Regiment.

DEATH.

MONRO, JAMES, formerly Surgeon-Major of the Coldstream Guards, at 37, Gloucester-street, Belgrave-road, after a few hours' illness, on November 3.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRISTOL ROYAL INFIRMARY.—Assistant House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 12.

COVENTRY AND WARWICKSHIRE HOSPITAL.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 19.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—House-Surgeon; must be duly qualified and registered. Applications and testimonials to the Hon. Secretary on or before December 1.

DUDLEY UNION.—Medical Officer for the Third District. Candidates must be duly qualified. Applications and testimonials to Mr. G. Wenden on or before the 23rd inst. Election the next day.

GENERAL HOSPITAL, BIRMINGHAM.—Physician; must be a graduate in Medicine of a University, and must also be either a Fellow or Member of the Royal College of Physicians, London. Applications and testimonials to the Medical Committee on or before the 17th inst. Election on the 25th inst.

GENERAL HOSPITAL, BIRMINGHAM.—Surgeon; must be F. or M.R.C.S.E. Applications and testimonials to the Medical Committee on or before the 17th inst. Election on the 25th.

GENERAL HOSPITAL, BIRMINGHAM.—Resident Registrar and Pathologist; must have both Medical and Surgical qualifications. Applications and testimonials to the House-Governor and Secretary on or before the 24th inst.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, BRIDGE-STREET, MANCHESTER.—The office of Assistant Medical Officer will be vacant at Christmas. Applications and testimonial to Dr. Borchardt on or before November 20.

HOMERTON FEVER AND SMALL-POX HOSPITALS.—Resident Medical Officers wanted for each of the above Hospitals. Candidates must have both Medical and Surgical qualifications. Applications and testimonials to the Offices, 37, Norfolk-street, Strand, on or before November 16.

LIVERPOOL SOUTHERN HOSPITAL.—Honorary Physician; must have a Medical qualification, and must not be engaged in the practice of Surgery, Pharmacy, or Midwifery. Applications and testimonials to G. H. Horsfall, Esq., on or before Nov. 29. Election the following day.

MIDDLESEX HOSPITAL, BERNERS-STREET, W.—Assistant-Physician. Applications and testimonials to the Weekly Board on or before November 15.

MORPETH DISPENSARY.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

NORTH WITCHFORD UNION.—Medical Officer for the East Division of the Parish of Chatteris. Candidates for the appointment must be duly qualified and registered. Applications and testimonials to T. Tusting, Esq., Clerk to Board, on or before November 15. Election the next day.

WESTERN GENERAL INFIRMARY.—Physician; must be F. or M.R.C.P. Lond. Applications and testimonials to the Secretary on or before November 28. Election on December 7.

WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY.—Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 17.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Brixworth Union.—Mr. Williams has resigned the Second District; area 8599; population 2287; salary £78 per annum.

Cockermouth Union.—Mr. Harrison Mitebell has resigned the Second Cockermouth District; area 25,618; population 5197; salary £30 per annum.

Mansfield Union.—The Second District is vacant; area 8750; population 2779; salary £25 per annum.

APPOINTMENTS.

Bodmin Union.—George Thos. A. Staff, M.R.C.S. Eng., to the Second District.

King's Norton Union.—Francis P. Davies, B.M. and M.C. Edin. Univ., M.R.C.S. Eng., to the King's Norton District and the Workhouse.

Sheppey Union.—Peter Swales, M.R.C.S. Eng., L.S.A., to the Minster District.

COLLEGIATE PROCEEDINGS.—The unconfirmed minutes of the ordinary meeting of the Council of the Royal College of Surgeons on the 3rd instant have just been exhibited in the Hall of that Institution, and contain but little information not already communicated to our readers. A letter was read from Mr. Savory, thanking the Council for having elected him a member of the Court of Examiners, whereupon that gentleman was introduced, and took the oath of an examiner. On the suggestion of the President, the following examinations were directed to be added to the list of those recognised as equivalent to the preliminary examination for the diploma of member, viz., examination in classics and mathematics, etc.:—Christ College, Canterbury, New Zealand, and King's College, Nova Scotia, Matriculation Examination and Responsions; Fredericton, New Brunswick, Matriculation Examination; Sydney, New South Wales, Matriculation Examination. Mr. Peter Marshall, of Bedford-square, and Mr. J. E. Mayer, of the Indian Army, admitted members of the College in 1828 and 1833 respectively, were elected Fellows, and Mr. Kelburne King, of Hull, admitted a Licentiate in 1841, and a Fellow in 1858, of the Royal College of Surgeons of Edinburgh, was elected an *ad eundem* Fellow of the College. It is stated that this is the first occasion of a gentleman being admitted a Fellow *ad eundem* of the Institution. Mr. Gay withdrew his motion, notice of which he gave in July last, and which has been already published in the *Medical Times and Gazette*: it is understood he will again introduce it at a more opportune time.

COLLEGIATE EXAMINATIONS.—At the Primary or Anatomical and Physiological Examinations for the Diploma of Membership of the Royal College of Surgeons, which were brought to a close on Tuesday last, there were thirty-nine candidates, of which number twenty-six passed, and thirteen having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their studies for the usual period of three months. At the written examination, on Saturday last, the following questions were submitted to the candidates, only one of whom retired without giving in any paper:—1. Describe, in their relative position, the muscles, nerves, and bloodvessels which are brought into view by removing the gastrocnemius and soleus muscles. 2. Mention the various secretions contributing to the process of digestion. State whence they are derived, and the chemical constitution and special function of each. 3. Give the dissection required to expose the submaxillary gland. Notice all the parts brought successively into view in the course of the dissection, and describe the form, size, relations, and minute structure of the gland. 4. Describe the functions of the skin, and state what physiological effects result from their suppression. 5. State the origin and course of the vertebral arteries, and their distribution within the cranium. Describe also the mode in which the circle of Willis is formed. 6. On what form of lever do the greater part of the muscles act in moving the limbs? and state the mechanical advantages and disadvantages resulting from the use of that form of lever. Give some of the best-marked instances of this kind in the human subject.—At this meeting of the Court the recently elected examiners, Messrs. Henry Hancock, Vice-President of the College, Surgeon to the Charing-cross Hospital; Frederick Le Gros Clark, Surgeon to St. Thomas's Hospital; and William Scovell Savory, F.R.S., Surgeon to St. Bartholomew's Hospital (late Professors in the College), took their seats as members of the Court of Examiners. The next pass examination for the diploma of Membership of the College will commence this day Friday. It is stated that the number will be considerably in excess of those who offered themselves at the corresponding time last year, as it was slightly in excess at the above primary examination.

HEALTH OF THE UNITED KINGDOM.—In the United Kingdom the births of 255,136 children, and the deaths of 159,102 persons of both sexes, were registered in the three months ending on September 30. The natural increase of population was thus 96,034. The death-rate of the Kingdom differs little from that prevailing in England and Wales. The resident population in the middle of 1870 is provisionally estimated at 30,838,210; that of England and Wales amounting to 22,090,163, of Scotland to 3,222,837, and of Ireland to 5,525,210. The corrected death-rate of the quarter is 22·1 per 1000; the birth rate 34·5; the marriage rate for the previous quarter 16·0. The several facts concerning Scotland and Ireland are recorded in the quarterly reports of the Registrars-General of those parts of the kingdom.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION, IRELAND.—It is proposed to form an association to advance the interests and redress the grievances of the Poor-law Medical Officers of Ireland. *Proposed Regulations:* 1st. That the Medical officers of each Union shall elect from amongst their number a Union representative, who shall be empowered to communicate their views, when necessary, to the Board of Guardians. 2nd. That the Union representatives of each county shall elect from amongst their number a county representative, who would be in communication with the Parliamentary representative of the county. 3rd. That the thirty-two county representatives shall form the council of the association. 4th. That a meeting shall be held quarterly and alternately in each of the provinces of

Ireland. 5th. That an annual meeting shall be held, when the general president, treasurer, and secretary for the year shall be appointed. 6th. That the annual subscription for each member shall be 2s. 6d. (There being 1000 Poor-law Medical Officers in Ireland, this would produce an income of £125 per annum, which would cover printing, postage, and stationery.) The secretary is Dr. D. T. T. Maunsell, Dublin.

EVIDENCE OF ACTION OF REMEDIES.—A great difficulty with which you will have to contend is the right estimation of Medical evidence in connexion with the published effects of remedies. Sir Henry Holland has truly remarked, that neither those accustomed to legal evidence nor such as have pursued physical science in its more simple material forms can rightly apprehend the vast difference made by the principle of life, or, yet more, of the states and phenomena of mind, in connexion with bodily organisation. An animal body differs from an inanimate machine in having the power, to a certain extent, of repairing its own disarrangements. This is owing to that principle of life which directs and influences most of the operations of the body. It is the want of this right understanding of Medical evidence which makes the mass of mankind so prone to be deceived by imposture of every description—whether it be the idle fashion as to particular remedies, or the worse, because wider, deception of some system professing to have attained at once what the most learned and acute observers have for ages laboured after in vain. We must, then, agree with Sir Henry Holland, that conclusions requiring for their authority a long average of cases, carefully selected and freed from the many chances of error or ambiguity, are often promulgated and received upon grounds barely sufficient to warrant a repetition of the trials which first suggested them; and that a due estimate of the nature of the proofs with which we have to deal is especially needful at the present time, when new medicines are every day produced upon trial, many of which are dangerously active in their effects.—*From B. Wills Richardson's Introductory Lecture.*

A SURGEON has been charged before the justices at Market Drayton, by the relieving officer of the Drayton Union, who is the public prosecutor under the "Vaccination Act, 1867," with having given a certificate, falsely stating that a child named Fowler had been successfully vaccinated. The defendant was committed for trial, but allowed to enter into his own recognisance in £50 to appear.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H. G., Spilsby, Lincolnshire.—Flowery typhus is *typhus exanthematus*—typhus with an exanthematous eruption.

Siege Venison.—Dr. Cormack, who is still amongst the besieged in Paris, writes to his friends on the excellent flavour of *siege venison—i.e.*, horse flesh—if eaten with *siege sauce—i.e.*, hunger. *Dulce est desipere in loco.*

A Naval Surgeon, Plymouth.—We believe that the Presidents of the Royal Colleges of Physicians and Surgeons respectively, together with the Director-General of the Medical Department of the Royal Navy, are at present engaged reading the essays for the Blane medal. The awards will be duly announced.

The Oneida Community.—We have received a copy of the *Medical Gazette of New York*, for October 22, 1870, containing articles which make us blush for our Profession. Four or five years ago, Mr. Hepworth Dixon published a work called "New America," in which he detailed the practices of the Mormons and other licentious sects, and amongst them of the Oneida Community—a set of human beings who live together in one herd, at a place called Oneida, where they practise the kind of sexual morality which would prevail amongst a herd of cattle—or flock of sheep. But here we do an injustice to the cattle for at least these obey an instinct, and know no harm. But the Oneida wretches evidently pursue a system in which the promptings of instinct which are common to the brutes are manipulated by human reason, so as to secure the maximum of sensuality without the risk of offspring. It must be added, however, that the "Community," for some reason or other, set twenty men and twenty-four women to work systematically, as cattle would be by cattle-breeders, to produce children. This disgusting business is detailed *proh pudor!* by a fellow named T. R. Noyes, head of the Oneida Community, who signs himself M.D., and they are published and commented on by the editor of a Medical journal bearing the once honourable name of "Medical Gazette." Why should such papers be published in a *Medical* journal? Why are members of the Medical Profession to be credited with the love of this prurient filth?

THE LONDON UNIVERSITY EXAMINATIONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you permit me to call attention to the strange fact that the authorities of this extraordinary body still have but one annual examination, whereas of each of the following there ought to be two—viz., Preliminary Scientific, First B.Sc., First B.A., and Second B.A. and B.Sc.

Is it not certain that many hard-working and able men are forced to go in, when they know their chance of success is very slight, simply because, if they try, they may be successful; but, if they fail, they are no worse off than had they not tried? The much-needed change proposed would save many a man the acute pain of rejection.

Then, again, what can be worse policy than placing the honours examinations directly after a severe pass? Why not have an interval of two or three months between the two, thus giving time for the careful preparation of the candidates' strong points? The multiplicity of subjects is so alarming that, if a man works at all of them, he may pass, but can hardly hope for honours—if he works for honours, he very often comes to grief in the pass.

Some badly-disposed persons might add that there is room for some changes in the pass examinations, such as allowing the candidate some choice of subjects—as, say, at the Second B.Sc., between physiology and geology; but, then, that a considerably higher standard should be enforced than that now laid down. Would this not produce profounder scholars and more accurate thinkers than the present race of London dabblers?

Nov. 7. I am, &c. AN OLD UNIV. COLL. MAN.

F. M. must have a Surgical diploma also.

Beta.—In the Reading-room, British Museum.

L.C.P. cannot be elected *ad eundem*.

J. H.—Colonial Surgeons are appointed by the Secretary for the Colonies.

Statist should apply to the Registrar-General of Births, Deaths, and Marriages.

E. M.—Dr. Stirge's Introductory Address is to be obtained of Strangeways, Castle-street, Leicester-square.

THE O. W. FUND.

We have received from Dr. Lavies the following additional names of subscribers to the O. W. Fund:—

Dr. J. W. Ogle	£1	1	0	Rev. E. Mule	£5	0	0
J. Erichsen, Esq.	1	1	0	F. Pipe Wolferstan, Esq.	5	0	0
J. Birkett, Esq.	1	1	0	E. Pipe Wolferstan	1	1	0
Dr. Webster, Dulwich	1	1	0	R. O'Shaughnessy, Esq.	1	1	0

Dr. Richardson begs to acknowledge the receipt of the following sums to the O.W. Fund in response to his appeal:—

Dr. Burrows, F.R.S.	£2	2	0	Dr. Paget, Cambridge	£1	1	0
J. Paget, Esq., F.R.S.	2	2	0	Cæsar Hawkins, Esq., F.R.S.	5	0	0
Rev. M. Claxton	1	0	0	W. Hepworth Dixon, Esq.	1	1	0
W. Adams, Esq.	1	1	0	Dr. T. G. Balfour	1	0	0
Dr. Hughlings-Jackson	1	1	0	Professor Erasmus Wilson, F.R.S.	10	0	0
Dr. John Murray	1	1	0	G. C.	1	1	0
D. A. Haffenden, Esq.	1	1	0	T. Taylor Griffiths, Esq., Wrexham	3	3	0
Dr. Richardson, F.R.S.	1	1	0	Dr. Bull, Hereford	1	1	0
J. F. Clover, Esq.	1	1	0	Hy. Bateman, Esq.	1	1	0
Dr. Leonard Sedgwick	1	1	0	W. Bowman, Esq., F.R.S.	5	5	0
George Busk, Esq., F.R.S.	2	0	0	T. Paget, Esq., Leicester	5	0	0
Dr. Boyd	1	0	0	Dr. Radford, Manchester	1	1	0
T. B. Curling, Esq., F.R.S.	2	2	0	Dr. Armstrong, Gravesend	2	0	0
G. Critchett, Esq.	2	2	0	H. D. Carden, Esq., Worcester	3	0	0
Dr. Anstie	1	1	0				
Sir W. Jenner, Bart., F.R.S.	5	0	0		£70	3	6
C. Bader, Esq.	1	1	0				
A Lady (by Dr. Anstie)	0	10	6				
Barnard Holt, Esq.	2	2	0				

Ecce.—Yes; he can enter into partnership for five years.

A Mother.—The paper on Baby-Farming, read before the Dialectical Society of London, by J. T. Dickson, is published separately. It is printed by McGowan and Co., Great Windmill-street.

R. P.—The letter was received, and shall receive attention. The writer is incorrect in some of the statements made; the chairman of the committee was Mr. Warburton, not Mr. Hume. Sir Astley Cooper was examined. One of the witnesses was the late Mr. Green. The report of the Committee can be obtained at the office for Parliamentary papers.

SCIATICA AND ITS CONDITIONS.

By G. T. MOCKETT, L.R.C.P. Ed., M.R.C.S.E., Cav. de Ordem da Roza.

The observations upon this subject by Dr. Lawson in your journal of dates respectively Dec. 4 and 11, especially as to the conditions under which this disease presents itself, lead me to offer the following suggestions, whilst at the same time I must acknowledge that the able authorities heretofore and of the present day leave little to be said on it.

In the first place, as regards the pain, we all very well know the cause of it is constitutional, however direct or remote the predisposing cause be which brings about this effect, as in headache, toothache, and many other aches traceable to deranged *primæ viæ*. It therefore cannot be astounding that the immediate parts, looking at all the intimate communication and anatomical relation between the lumbar and sacral plexus, and the distribution of these branches with the sympathetic by interunion of the filaments, do not more frequently require our attention. Furthermore, I conceive that the pains oftener attack the smaller branches, as I have noted the hyperæsthesia takes the inguino-cutaneous articulo-lumbo-sacral communicating course towards the spinal plexus, where it becomes most acute either in the lumbar or sacral region, and under a continuous current impairs voluntary motion necessarily, recurring with more or less force, involving those nerves distributed to the testes when arising from venereal exhaustion in the male; descending it leaves a simulative asthenic impression with numbness about and below the knee. The cause was so simplified by Craigie into two words—1, external; 2, internal; these I detail—

1. Avocation: Out-door exercise with continual obligation of service, exposure to all changes of temperature, heavy showers, cutting winds,

opening and contracting the pores of the skin. The most likely subjects are military, maritime, postal, and traffic *employés* on rail, high, or by-roads, rivers, and canals; police, watchmen, in fact all venturous labourers, including our own Profession, specially those amongst us who use the ordinary gig where the region of this disease becomes exposed. Season, chills and draughts, wet and cold. Excessive muscular action, strains, daily prolonged horse riding. These, exclusive of malpractices, dietetic or otherwise, are about the principal external causes.

2. Diathesis: the bilious and plethoric, dynamic, usually affecting the male, the nervous and adynamic, the female. Above all things indigestion, not dyspepsia, but that which arises from continuous esoteric taxation. Constipation, consequent upon hepatic derangement, with faulty secretion and retained excretion, seems to have most to do with this sequence; add visceral enlargement, distension, and pressure, impurity of the blood, always palpably demonstrated by the elimination at the kidneys, and I hold that nervous sympathy must become implicated and bear its influence. Whilst admitting the use of subcutanous injection for immediate alleviation, as a neurotic, I, at the same time, resort to an eliminative, say the white laxative mixture with iodide or bromide of potassium, commencing with a form I picked up in your columns—*i.e.*, sulphur, cream of tartar, and extractum guaiaci resinæ.

Marianna, Brazil, Jan. 28.

COMMUNICATIONS have been received from—

Dr. McCarthy; Dr. Edmunds; Dr. Hayward; An Old University College Man; Mr. Lawson Tait; Dr. A. Mercer Adam; Mr. F. P. Staples; Mr. J. M. Cunningham; Mr. B. Wills Richardson; Mr. A. Hollis; Dr. Maunsell; Dr. J. Whitmore; Professor J. Gamgee; Dr. A. B. Steele; Dr. J. Oliphant; Mr. E. C. Langford; Mr. D. Guillod; Dr. W. R. Woodman; Dr. Ballard; Mr. J. Chatto; Dr. Moxon; Dr. Lawson; Dr. Althaus; Mr. Henry Smith; Mr. N. Alcock; Dr. J. J. Hardesty; Mr. G. Eastes; Mr. Harry Gay; A Constant Reader and Subscriber.

BOOKS RECEIVED—

Deschanel's Natural Philosophy, by Professor Everett—Dr. Eustace Smith on the Wasting Diseases of Infants and Children—Contributions to Surgical and General Pathology, by Dr. John Chiene—Report of Chelsea, Brompton, and Belgrave Dispensary—Dr. Hayward's Remarks on some of the Sanitary Necessities of House Building—Sixth Annual Report of the Sanitary Commissioner with the Government of India—J. Thompson Dickson, M.B., on Baby-Farming—Indian Medical Gazette—Dr. Lewis's Report on the Microscopic Objects found in Cholera Evacuations, etc.—Liverpool Medical and Surgical Reports, vol. iv.—The Medical Works of Francisco Lopez de Villalobos, translated by George Gaskoin—Australian Medical Gazette, August—Dr. Sturge's Introductory Address at the Westminster Hospital Medical School—Dr. Rockwell's Observations on the Physiological and Therapeutical Effects of Galvanisation of the Sympathetic—Flowers from Fatherland Transplanted into English Soil, by John Pitcairn Trotter.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Western Daily Mercury—Woodhull and Claflin's New York Weekly—Liverpool Daily Post—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

November 12. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

14. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

Medical Society of London, 8 p.m. Dr. Althaus will show a Case of Paralysis, and also some New Forms of Galvanic Apparatus. Mr. Teevan, "A Case of Calculus in the Ischio-rectal Fossa." Mr. John Daniel Hill, "An Analysis of 140 Cases of Organic Urethral Stricture, of which 120 Cases were submitted to Holt's Operation and 20 to Syme's Operation."

15. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Mr. Maunder, "A Tumour." Mr. J. E. Adams, "Dislocation of Wrist." Dr. Quain (for Dr. Silver), "Diseased Supra-renal Capsules." Dr. Douglas Powell, "Cases of Hæmoptysis." Mr. Richard Davy, "Hip-joints showing Destructive and Conservative Processes." Dr. Whipham, "Diseases of Tricuspid Valve." Dr. Kelly, "Heart in a Case of Cyanosis; Malformed Heart; Necrosis of Patella."

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; Loadon, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

18. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 5, 1870.

BIRTHS.

Births of Boys, 1145; Girls, 1053; Total, 2198.
Average of 10 corresponding weeks, 1860-69, 2050·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	703	640	1343
Average of the ten years 1860-69	685·4	649·7	1335·1
Average corrected to increased population	...	...	1469
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	6	26	1	...	1	1	2	4
North ...	618210	7	2	56	3	1	5	11	2	2
Central ...	383321	...	3	10	1	...	1	2	3	1
East	571158	13	10	15	1	4	3	3	5	4
South	773175	2	6	58	1	5	...	3	3	5
Total	2803989	23	27	171	7	10	10	20	15	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·100 in.
Mean temperature	44·1°
Highest point of thermometer	53·4°
Lowest point of thermometer	29·8°
Mean dew-point temperature	41·2°
General direction of wind	N.N.E. & W.S.W.
Whole amount of rain in the week	0·47 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 5, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Nov. 5.	Deaths Registered during the week ending Nov. 5.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2198	1343	56·4	29·8	44·1	6·73	0·47	1·20
Portsmouth ...	122084	12·8	91	36	60·2	25 8	42·7	5·95	0·15	0·38
Norwich	81087	10·9	39	52	54·5	32·7	45·3	7·39	0·60	1·52
Bristol	171382	36·6	108	104	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	56	20	52·1	30·1	42·7	5·95	0·59	1·50
Birmingham ...	369604	47·2	239	133	53·9	29·4	43·3	6·28	1·07	2·72
Leicester	97427	30·4	75	64	55·2	29·7	43·8	6·55	0·67	1·70
Nottingham ...	88888	44·5	58	36	54·9	30·8	44·7	7·06	0·55	1·50
Liverpool	517567	101·3	433	315	52·5	35·8	45·4	7·44	0·34	0·86
Manchester ...	374993	83·6	262	168	53·5	29·0	42·6	5·89	0·40	1·02
Salford	121580	23·5	97	62	53·5	31·1	43·0	6·11	0·38	0·96
Bradford	143197	21·7	121	62	55·7	34·8	45·6	7·55	0·70	1·78
Leeds	259527	12·0	162	133	55·0	32·0	45·9	7·72	0·28	0·71
Sheffield	247378	10·8	194	93	57·0	31·0	44·6	7·00	0·40	1·02
Hull	130869	36·7	81	43	54·0	29·0	43·4	6·33	0·08	0·20
Sunderland ...	100979	30·5	70	34	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	94	69	...	...	...	...	...	...
Edinburgh	178970	40·4	145	87	51·7	35·0	46·2	7·89	0·10	0·25
Glasgow	468189	92·5	354	217	52·2	32·5	44·8	7·11	0·21	0·54
Dublin (City, etc.*)	321540	33·0	142	126	56·0	29·5	45·7	7·61	0·75	1·91
Total of 20 Towns in United Kingd'm	7216325	33·8	5019	3227	60·2	25·8	44·3	6·84	0·46	1·17
Paris—Week ending Nov. 5	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Oct. 29 ...	622087	167	...	296	...	...	46·4	8·00	...	...
Berlin—Week ending Nov. 3 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·100 in. The highest barometrical reading was 30·36 in. on Wednesday, and the lowest was 29·37 in. on Monday.

The general direction of the wind was N.N.E. and W.S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON DERMATOLOGY.

DELIVERED IN THE

Royal College of Surgeons

By ERASMUS WILSON, F.R.S.,
Professor of Dermatology in the Royal College of Surgeons.

LECTURE VI.

(*Concluded from page* 526.)

ACNE, or more correctly *akme* or *akmai*, is a folliculitis having relation to the augmented function of the hair follicles which takes place at puberty. That the ancients were aware of the physiological signification of this disease seems apparent, from their use of the word ακμη, flos ætatis, the opening blossom of life, and also of that other word, a synonym of akne—namely, ανθος, signifying the root of the hair. When the individual is strong, the function progresses without any sign of the physiological change; but where there is any feebleness of power, either in the individual or in the skin, a deformity or *varus* results, which is known by the name of akne. Sometimes the feebleness of vitality leads to nothing beyond a loss of power of expelling the contents of the follicle, and the impacted secretion appears at the aperture of a dilated and distended follicle in the shape of a round black point, forming the summit of a prominent elevation or pimple; this is *akne punctata*. At other times the impacted matter acts as an irritant, and occasions inflammation of the follicle: the tissues immediately around the follicle become congested and infiltrated, and a conical pimple is produced, which becomes pustulous at the summit, and is perforated by the duct of the follicle; this is *akne conifórmis*. When a small cluster of adjacent follicles is inflamed, or when hyperæmia and infiltration extend further into the surrounding skin, so as to produce a tubercular prominence in lieu of a papula, the case is termed *akne tuberculosa;* and when the tubercle is further infiltrated and hard to the touch, forming sometimes an indolent chronic mass, and at other times issuing in a cutaneous abscess, the case is transformed into *akne indurata*.

GUTTA ROSEA, the rosy spot, is another form of folliculitis, taking its origin in a different cause, making its appearance upon the face, frequently on the nose exclusively, and occurring at the adult period of life, and most commonly in the female sex. At its first appearance it may be recognised as a simple punctum, resulting from hyperæmia of the follicle, and with or without surrounding erythema; next it shows itself as a papule, sometimes small and sometimes large, of a dull crimson or roseate hue, and presenting some variety bearing upon its inflammatory activity; sometimes it is chiefly *erythematous*, an inflamed blotch studded with puncta or minute papulæ. Sometimes the *papulous* character is more decided; sometimes it is *pustulous*, the summit of the larger papules being occupied with pus; and sometimes it is *tuberculous*, and the tubercles are one while indolent and purple or livid in colour, and another while they form indolent abscesses. Gutta rosea has heretofore been confounded with akne, under the name of akne rosacea, and the physiognomy of the disease is made familiar to our mind by the words of Shakspeare, when he tells us with regard to Falstaff that—

"His face is all bubukles and whelks and knobs, and flames of fire."

And, in a few words, it may be said to be a protest of the fifth pair of nerves against ill-treatment received by the gastric portion of the eighth.

In the same category of folliculitis originating in irritant causes, whether internal or external, are to be placed the papulo-pustular eruptions which are associated with the use of iodide of potassium, bromide of potassium, and tar, the latter being the tar-akne of Hebra.

SYKOSIS is another example of inflammation of follicles attended with hyperæmia and infiltration of the surrounding tissues, and suppuration. It is generally confined to the hair follicles of the face, but sometimes creeps up upon the temples into the scalp. On the face, it is most common on the chin, hence its synonym, *mentagra;* next, in the region of the whiskers and upper lip, and then in the eyebrows. Like other forms of disease of the follicles, the morbid follicles are sometimes isolated; sometimes they are united by an inflamed and thickened base; and sometimes they are confluent, and form irregular masses and tubercles, or granular protuberances, which have suggested the term συκον or ficus, a favourite appellation among the ancients for any prominence or growth of the skin. In its isolated form, sykosis is a conical papule, pustular at its summit, and piereed by a hair. Sometimes, in fact, it is simple and trivial, yielding easily to treatment; at other times it is chronic and obstinate; and a third form is recognised, which partakes of the character of lupus erythematosus, and, when it disappears, leaves behind it a fibrous cicatrix where no ulceration had previously existed. It is evident, therefore, that sykosis presents several varieties and degrees of disease, and among them has been observed the phytiform transformation of the epithelium which is consequent upon deranged development and nutrition of that tissue.

I may call to your mind that the hair-follicles and the hairs are the chief seat of the phytiform degeneration of the epithelium, as we have seen in phytosis tonsurans, in phytosis circinata, in favus, in phytosis versicolor, in the annulate eruption termed ekzema marginatum or leichen marginatus, and as we now see to be the case in sykosis; these, in fact, are the parasitic diseases of some authors—the diseases in which the so-called vegetable fungi termed trichophyton, microsporon, and achorion are found, the fungus of sykosis being the trichophyton, which occurs also in phytosis or tinea tonsurans, in favus, and in tinea circinata.

KERION is another term, which, like favus, takes its origin from the honeycomb, and is, in fact, the Greek synonym of favus, although applied to a totally different disease. For while favus must be regarded as a disease of abnormal development and nutrition, kerion is a true inflammation of the hair follicles, accompanied with suppuration and elimination of the hairs. It is sometimes dispersed among separate follicles, *kerion dispersum*, but more frequently attacks a circular patch, *kerion confertum;* in the latter case the diseased plot is raised by tumefaction into a hemispheroidal prominence, and this prominence is studded all over with the dilated apertures of follicles, which give issue to a considerable quantity of fluid, sometimes transparent and glairy, at other times semi-purulent. Kerion is a much more common affection than favus, but, like it, is limited to the juvenile period of life.

IX.—ABERRATIONS AFFECTING THE SECRETING ORGANS.

18. STEATOPATHIC AFFECTIONS.—The distinction of trichopathic affections and steatopathic affections involves the separate idea of the hair follicle and of the sebiparous gland—trichopathic affections, including pathological states of the hair follicle as well as of the hair, and steatopathic affections, being limited, as far as may be practicable, to the sebiparous gland itself and its secreted product. Steatopathic affections, therefore, may be divided into two chief groups—namely, diseases of *function* and diseases of *structure;* under the head of diseases of function, we shall take into consideration the unhealthy conditions of the secretion, and its abnormal distribution on the surface of the skin; and we may tabulate these affections as follows:—

GROUP 18.—STEATOPATHIC AFFECTIONS.

a. Diseases of Function.

Steatorrhœa simplex.
" flavescens.
" nigricans.
" cœrulea.
Asteatodes.

b. Diseases of Structure.

Hypertrophia glandularum.
Tuberculum adenosum.

There can be no doubt that the sebaceous secretion is subject to variations in composition, the essential variations being the plus or the minus of fluid and solid matter, the former consisting of water and oil, the latter of cell-tissue and pigment. When the fluid matter—and especially the oil—is predominant, and the secretion is produced actively, we have before us an affection which is termed *steatorrhœa* simplex or oleosa. The diffluent secretion is poured out upon the skin in excess, and the skin consequently is greasy and foul. Such a state of disorder is sometimes met with on the face, and sometimes upon the scalp. The secretion is apt to inspissate and concrete, and then, especially on the scalp, there may be produced a discoloured adhesive stratum of considerable extent.

The steatopathic affection is sometimes remarkable for alteration of colour of the secretion—a state which may be termed *chromosteatodes*, and the secretion is one while yellow (*steatorrhœa flavescens*), another while black, from excess of pigment matter (*steatorrhœa nigricans*), and in some rare instances has been observed to be blue (*steatorrhœa cœrulea*).

On the other hand, instead of steatorrhœa, there may be present a state of *asteatodes* or deficiency of sebaceous secretion, and, with that deficiency, a reduced proportion of the fluid element of the sebaceous substance. In this instance, dryness of the skin is the predominant symptom of the affection, and this dry and parched state of the skin we meet with not unfrequently in association with chronic folliculitis. On the scalp the dry and parched condition of the skin is termed *xerasia capitis*, and is associated with degeneration and loss of the hair.

The sebiparous glands, like other organs of the body, are subject to variations of nutrition, sometimes tending in the direction of hypertrophy, and sometimes in that of atrophy. Occasionally an appearance of *hypertrophy of the glands* is produced by a want of nutrition and consequent attenuation of the rest of the skin; the glands are thereby rendered prominent, and the whiteness of their contents occasions them to be strikingly visible. We not unfrequently meet with examples of this kind in the badly-nourished skin of delicate females. The arrangement of the glands is as evident as if the skin were transparent. Sometimes they are grouped in irregular lines, and sometimes they form an almost solid stratum, with a seeming absence of interglandular tissue.

But there is another form of hypertrophy of the sebiparous gland, which raises it up to the height of a small currant, and forms a little mass that is not unlike a currant in shape. The most cursory examination shows that it is an enlarged sebiparous gland covered by a layer of stretched and attennated skin; the lobes of the gland are distinctly apparent, distended by their cellular contents. The little tumour is depressed at the summit, where it presents a kind of hilum, the aperture of the follicle being filled with dry exuvial matter; and the protrusion of the gland is often so complete that the tumour is apt to be constricted at the base, and is as it were, sessile and sometimes slightly pedunculated. The appearance of the semipedunculate tumour has suggested a comparison with the soft pendulous tumours of the skin termed molluscum, and the sebiparous tumour has also been named molluscum, and, from a supposed contagious proclivity of the disease, *molluscum contagiosum*. I prefer, however, to term it *tuberculum adenosum*, or, if the unscientific word "molluscum" be insisted on, then *molluscum adenosum*. The contagious nature of the disorder must be considered for the present as *sub judice*.

19. Idrotopathic Affections are the disorders of the perspiratory system, and are are both functional and structural. The functional forms are *idrosis* or sudatoria, sometimes termed hyperidrosis, as signifying an excess of secretion; *anidrosis*, or a deficiency of the sudatory secretion; *osmidrosis*, fœtid perspiration, abnormal in odour; *chromidrosis*, or perspiration altered in colour; and *hæmatidrosis*, a term which is applicable rather to a sanguineous exudation from the unbroken skin than to an undoubted secretion of the sudatory glands. Structural alterations are manifested in the sudoriparous glands by *hyperæmia* and *atrophy*, and, according to the French authors Verneuil and Bazin, by a pustular affection which they have termed *hydroadenitis*, but which may possibly be nothing more than a form of folliculitis.

In arranging these affections in tabular order we may place them as follows:—

Group 19.—Idrotopathic Affections.

a. Diseases of Function.
- Hyperidrosis.
- Anidrosis.
- Osmidrosis.
- Chromidrosis.
- Hæmatidrosis.

b. Diseases of Structure.
- Hyperæmia glandularum.
- Atrophia glandularum.
- Hydro-adenitis.

This, Mr. President, completes the brief course of lectures in which I proposed to review the family of diseases of the skin, to take a synoptical or panoramic survey of that interesting branch of Medical science, to construct a framework in which every cutaneous disease and every variety of manifestation of cutaneous disease should have its separate and appropriate place; and, my task being now accomplished, the only wanting, but very pleasant duty remains of thanking you and the Fellows and Members of the College for the attention which you have been so kind as to bestow upon my efforts. I should, however, feel that I had ill-fulfilled my duty, did I not at the same time endeavour, however inadequately, to convey to you, sir, some expression of the gratitude that I entertain towards the Council for the protection which it has extended to dermatology; for giving to dermatology an asylum within these walls, and for bestowing on dermatology the truly magnificent site which it now occupies for the display of its illustrations in the Hunterian Museum, a position that can hardly be rivalled by any other in the world. The young plant which has now been so auspiciously planted by the Council will, I believe, thrive and grow stronger, so that, in times to come, British dermatology, fostered by the Royal College of Surgeons, may become one of the ornaments of British Medicine.

ORIGINAL COMMUNICATIONS.

MR. SIMON ON ZYMOTIC PATHOLOGY.

By Dr. LIONEL BEALE, F.R.S.,
Fellow of the Royal College of Physicians, &c.

The subject of "zymotic pathology" is spoken of by Mr. Simon in his twelfth report as if the idea that diseases are caused by ferments was a new one. The conclusion he arrives at regarding the nature of contagia is, that the active particles are "*microzymes*," which microzymes are shown by Dr. Sanderson in his report to be *bacteria*. On p. 245 are some bacteria, which are termed "*microzymes in vaccine*;" and on p. 232 is a representation of "particles" in fresh vaccine. The first drawing referred to is magnified 400, and the last 500; but many of the little rings supposed to represent the living particles in the one drawing exactly resemble those in the other. It is, however, well known that neither the bacteria germs nor bacteria themselves can be found in many fluids possessing virulent contagious properties, while both are common enough in fluids and secretions which are known to be harmless. At every period of life, from birth to death, millions of bacteria can be found in the secretions of the mouth and elsewhere in the living healthy organism. It is, therefore, very improbable that such organisms should constitute the active material of vaccine lymph or the poison of contagious diseases.

But Mr. Simon claims for zymotic pathology a very wide application. Tubercle, and even cancer, "may each presuppose, as one of its essential factors, the existence of some ferment which operates on the human body from without." And yet neither tubercle nor cancer resembles in any particular (except multiplication, which is common to every kind of living matter) any ferment or other kind of vegetable organism known. The mode of propagation, the microscopical characters, the conditions under which growth takes place, the effects upon the organism, the general appearance, structure, and chemical composition of the matter resulting from growth, remove tubercle and cancer from the category of organisms which are known to excite what is called fermentation and putrefaction. If a tubercle germ or a cancer germ is to be termed a ferment or a fungus, or a zymotic particle, a liver cell or a white blood corpuscle, or a brain cell might with equal propriety be so called.

Hallier's strange conclusions about the cholera fungus, which have been fully considered by numerous observers, but confirmed by none, and recently and thoroughly controverted by Dr. T. R. Lewis, Assistant-Surgeon attached to the Sanitary Commissioner with the Government of India, are favourably entertained by Mr. Simon and Dr. Sanderson. The latter has devoted more than a dozen closely-printed pages to an exposition of these extraordinary doctrines, and a repetition of the figures of the alarming "micrococcus," and "arthrococcus," and "cryptococcus," and the cholera rice parasites, which are made to look like marbles or bullets.

The subject of zymotic pathology is still open to free discussion, but Mr. Simon is mistaken if he supposes that in his report for 1869 the view that each contagium consists essentially of "*extremely minute separate solid particles*," and that the effective particles of each specific contagium are "*living, self-multiplying organic forms*" is advanced for the first time, as the context and the opening sentence on the natural history of contagia would seem to imply.

ANIMAL PARASITISM AS A CAUSE OF "DELHI BOIL" AND "MOOLTAN SORE."

By JOHN HARLEY, M.D., M.R.C.P.

Staff Surgeon-Major Alexander Smith, and Staff Assistant-Surgeon J. Fleming, have from recent investigations of the cause of Delhi boil (Army Medical Report for 1868, noticed in the *Medical Times and Gazette*, October 22, 1870) recorded certain facts which give strong reasons for believing that the disease is due to some form of animal life.

Dr. Aitken has subsequently examined certain "egg-like bodies," which abound in the open sores left by the boils. He concludes his remarks as follows:—"The observations of Dr. Smith and Staff Surgeon Fleming are very suggestive, and although the appearances are not similar, yet their dissimilarity is quite in keeping with the extremely varied forms in which *distoma* are found in the bodies of man and animals." P. 334 of the same report.

In the last impression of the *Medical Times and Gazette*, Assistant-Surgeon Nathaniel Alcock "assumes that there is a very marked analogy, if not actual identity, between Delhi boil and Mooltan sore," but considers that they cannot be caused by an animal parasite, on account of the long period of incubation sometimes observed in the development of the Mooltan sore. He mentions one or two instances in which the boil appeared after the arrival of the regiment in England, and two and a half months from the time of leaving Mooltan.

Now, the point to which I desire to draw attention is this, that we are not yet in a position to assume that so long a period of lateney in the development of the parasite is impossible, or even improbable. From a prolonged study of the development of one species of distomum (D. hæmatobium), I am able to say that the liberation of the embryo from the ripe egg may be delayed in the body as well as out of it for a considerable time, and that the process of liberation appears to depend to a great extent upon the specific gravity of the animal fluids. Diminished external temperature, by chiefly affecting the skin, may be another retarding cause. Evidence bearing upon this question is contained in some observations of mine which will shortly be brought before the Royal Medical and Chirurgical Society. I may, however, mention here that many persons who are the subjects of the parasitic hæmaturia of South Africa have, before its appearance, suffered from boils and indolent sores, which, according to the descriptions of my patients and the visible scars left, appear to be identical in nature with the Delhi boil.

This interesting and important question respecting the origin of endemic boils, will, I trust, meet with the careful attention of those whose opportunities afford them the necessary material for study.

SCIATICA: ITS IMMEDIATE RELIEF AND RAPID CURE BY HYPODERMIC INJECTION OF MORPHIA.

By HENRY LAWSON, M.D.,
Assistant-Physician to St. Mary's Hospital.

(*Concluded from page* 557.)

Case 1.—Richard D., coachman, aged 45, "lymphatic temperament," pulse slow and weak, tension low. Has for years suffered with pyrosis. Bowels are sometimes very costive, at others equally lax. Was lately exposed to wet, in fact "got drenched," waiting at the theatres; found his right leg rather stiff next day; towards evening it began to "ache rather," and the next morning it was so painful that he could with difficulty get out of bed, and then it pained him a good deal. It has been getting worse ever since (about eight or nine days), though it has been blistered. The leg, when seen, was slightly flexed, and the man walked on the toes of the affected limb somewhat. No tenderness on pressure over nerve, no painful or tender vertebræ. The ache seems to run from the middle line between trochanter and tuberosity of ischium to the outer side of the thigh; no pain in knee. Ordered linimenti crotonis et linimenti chloroformis partes æquales to be applied to the limb, and to have infusi quassiæ ʒj., ol. morrhuæ ʒij., liq. ferri perchlor. ɱxv. t.d. There was slight improvement after three days; appetite a little better, and pulse fuller, but limb was still flexed, if anything more than before, and the man complained of the constancy and absorbing character of the pain. Injections of morphia were now commenced. The usual solution was employed. One-sixth of a grain (or ɱij.) was injected into the limb at the junction of the upper third with the lower two-thirds of the thigh. The effect was very remarkable. The patient had before the operation to be assisted on the couch, and he complained that I ought to have "done it" without making him lie down, as it would hurt him "dreadful" in getting off the couch. Seven minutes after the injection, he said "I feel very queer," and deliberately got down off the couch, at the same time expressing his astonishment at the power he obtained over the limb, and stretching it out, and moving it about with surprise. This patient came in a cab, and had to be assisted into the consulting-room; he walked from the room to the cab with the greatest ease. The next day he complained of the pain still, but he said that he had been enabled to sleep the night before, and he spoke of the pain as altered materially in character. I repeated the injection. After six injections this patient was completely relieved from his affection. I may observe that in this case, as in most sciatic cases, the affected limb was much colder than the other, and immediately after each injection its temperature became higher than that of its fellow.

Case 2.—Mary G., aged 30, housemaid (single), came from the country, and considers that her health has been bad since her arrival in London. Has a rather "hard place," with a good deal of going up and down stairs, and has "heavy trays" to bear now and then. Has for some time suffered from loss of appetite, furred tongue, constipation, and heartburn. Drinks a good deal of tea. Menstruation irregular, quantity insufficient, and frequent leucorrhœa. Complexion ruddy, and temperament highly nervous and excitable. As she says herself, sometimes she is as "jolly as any girl," at others she has "a mind to make away with herself." No other hysterical symptoms. Went out one night lately to take a warm bath, and complained of chill on returning, and next day, when cleaning the stairs, felt a sharp pain running from the hip to the knee, and some pain also in the ankle of the right leg. She "had some liniment from the Doctor," but it did not remove the pain, which has gone on from bad to worse for a fortnight. She is unable to sleep at night, owing to her suffering, and is obliged to keep the limb bent, and can never remain more than some minutes in any one position. The surface feels colder than that of the healthy limb, but the thermometer indicates hardly any difference between the two. Her pulse is rapid and full, but that is common to many neurotic patients. Still she seems languid and debilitated. She was directed to have ol. ricini ʒj. o.n.; and infusi calumbæ ʒj., acidi nitrici dil. ɱx., liq. ferri perchlor. ɱxv. ter die. Also to have a strip of emplast. cantharidis, 10 × 1 inch, along the course of the sciatic nerve, beginning at a point midway between great trochanter and tuberosity of ischium. At the expiration of a week she was seen again. The pyrosis had diminished, the appetite had improved, and the "whites" were somewhat lessened, but, strange to say, the aching of the thigh was nearly, if not quite, as great as ever. The hypodermic injection was then tried. One-sixth of a grain of hydrochlorate of morphia (equal to ɱij. of my solution) was injected into the thigh at about the middle of the upper third and external surface. The patient complained, in about twenty minutes after the operation, that she felt giddy and drowsy; nevertheless, she walked home some little distance. The following day she called, according to regulation. She said that she had had the first night's sleep that she had enjoyed for a long time, and that the "thing I had put into" her gave her a great appetite. The pain had not been annihilated, but it was greatly lessened, and the movements of the limb, hitherto very painful, had become vastly easier. This patient was kept under the injection for ten days, and was then perfectly restored to health. The case was one of those which illustrated the tendency of the patient to look forward to the injection with pleasure, for it was with some little difficulty that I induced her to give it up. She even went so far as to ask whether she might not "do it for herself" if the pain came on again, alleging that she looked forward to it because it made her feel so comfortable.

Case 3 (illustrating sciatica from sexual excess).—H. De la B., a gentleman who had been in the Indian army, but had lately returned to this country. He has a sallow colour, with slightly jaundiced conjunctivæ, and cracked bright red tongue. Pulse slow and very weak; habit, so far as could be judged, lethargic. Had been a "man about town," and even lately had indulged habits of debauchery. Has little desire for breakfast, but is not absolutely sick in the mornings. Has drunk at one time, but is now "tolerably temperate." Complains of slight dull

pain in right hypochondrium, but has no discernible alteration of liver. Suffers much from constipation, with occasional intervals of diarrhœa. Has had external piles for years, but does not find them troublesome, except after a sexual debauch or after pedestrian exercise. Lately has given way to indulging his passions to an excessive degree, and has suffered from acute aching pain in the back, hip, thigh, a little in the calf, and much in the arch of the foot of the left limb. Affected limb very distinctly colder than the other. There is also less sensation, both generally and as respects the distance through which distinct sensations are recognised, than in the sound limb. The patient walks lame, the leg being flexed considerably, and he complains of entire absence of sleep. In this case we tried the effect of galvanisation with Pulvermacher's chain, and of this ingenious and portable battery it is only just to say that, notwithstanding the relatively high intensity of the current it evolved, it gave some decided relief while the current traversed the limb, the integuments having been previously saturated with water by means of water dressings, in order to increase their conductivity. We next, a day after, tried the "actual cautery," and it must be confessed that this, as soon as the slough appeared, appeased the pain, but did not remove it. On the other hand, the patient complained of peculiar sensations about the bowels, which I am disposed to think, from similar experience in other cases, may have been due to the cautery. These sensations were described as a strange burning and most uncomfortable feeling about the neighbourhood of the cæcum. He was ordered—Pil. rhei co. gr. v., resin. podophyll. gr. ¼ o. n.; infus. gentian. ʒj., acid. nitric. dil. mxv. ter die. Under this he improved in general health, but the pain in limb continued almost unabated. Subcutaneous injection was now employed. A quarter of a grain of hydrochlorate of morphia was introduced just over the tender point. The relief was apparent in a few minutes. The patient complained next day of having been slightly nauseated by the morphia, but on being ordered to eat immediately after subsequent injections, this feeling was obviated. The injections in this case were continued daily for a fortnight, and during part of the time the dose was increased to half a grain. At the end of this period he lost all pain, and could move the limb without discomfort in every direction. There was still some loss of power, owing doubtless to the limb having been inactive for so long a period, but the muscular power was steadily restored.

Case 4.—A young Professional man, aged 25, recently married, of somewhat excitable and nervous temperament. Complains of great depression of spirits and loss of appetite. Has been terribly dyspeptic. First noticed pain in right thigh after a long walk. It began as a dull ache, located in the neighbourhood of hip-joint, but it soon extended to the knee-joint, and even along the gastrocnemius to the ankle. After a couple of weeks the pain became much more severe, and unceasing, absolutely preventing sleep save in short snatches. Often gets out of bed and walks backwards and forwards across his bed-room for a considerable time. Finds that rest gives no relief, but admits that after exertion the pain is worse. Has been taking laudanum, in doses of a drachm, three, and sometimes four or five times a day. The effect of this has been merely to produce less or more stupefaction; but during the stupor he is still conscious of the pain. Says the effect of the laudanum is simply to make him "drunk." This vicious method of treatment has been persisted in for nearly three months, during which the pain has increased in intensity, the appetite for food has been almost destroyed, and much constipation and considerable gastric catarrh have been produced. At this date there was great lameness, the patient being obliged to use a stick in walking, then progressing very slowly and painfully, and being much exhausted after a walk of a few hundred yards. He cannot straighten the limb, and walks almost on the toes. There has been great wasting of the muscles, and the trochanter and sacro-iliac synchondrosis of the right side are very much more prominent than those of the other extremity. He was now ordered sea-air and salt-water baths, and quinine, and iron, and hypophospite of lime, and to avoid sexual indulgence and everything tending to produce exhaustion. Under this plan, another month elapses. The patient is still worse, and is clearly passing on to the grave. He is still compelled to indulge in opium, and he drinks a bottle of brandy per diem. The tonics have apparently had no effect. The gastric catarrh is as bad as ever. There is great general emaciation, utter sleeplessness, a pained, anxious, worn expression, extreme irritability of temper, and entire inability to concentrate the mental powers on anything. The patient is unable to walk out of doors, and has to move about his room on crutches. The heart's action has become much enfeebled, so that partial syncope often presents itself. There is extreme tenderness all along the course of the sciatic nerve, the limb is quite bent on itself, and the wasting of the flesh has gone on to a melancholy extent. The mind of the sufferer is quite demoralised, and, indeed, is more like that of an hysterical girl than anything else. Used to a previous active and energetic life, and now shut up for months in a chamber in torture, and without hope of relief, his mind is absorbed by his affliction, and he spends his time between groaning and giving way to all kinds of ideas as to his malady. One day he imagines he is about to be paralysed, another that in a few hours a huge abdominal aneurism will burst and end his life, and so forth. At this time, between the fifth and sixth months, a host of remedies is attempted, liniments, frictions, shampooing, vapour baths, turpentine, morphia, belladonna, plaster, blister, and last, but not least, the actual cautery. All in vain; most of the applications give some slight temporary relief, but after all the pain returns unabated in severity. It seems wonderful how the patient holds out, seeing that he eats so little, sleeps so little, and suffers so intensely. At this stage, as an almost *dernier ressort*, electricity is thought of, faradisation and galvanisation being employed. The first day's application of the induced interrupted current is sufficient to prove its injurious character. The patient suffers more acutely during the five or six hours following the application than he has done for weeks. Next day the current from about seventy of Daniel's elements is administered. On the first occasion it is passed along the course of the nerve. The result seems to be *nil*, the patient alleging that neither during the passing of the current nor subsequently has he observed any mitigation of the pain. On the following day the galvanic current (number of elements the same) is passed in the manner suggested by Dr. C. B. Radcliffe (a) athwart the trunk of the nerve. It was very remarkable that the effect of the current, when passed in this manner, gave relief, but so it was nevertheless. During the passage of the current there was considerable abatement of the ache, and for some hours (three or four) subsequently the pain was of a mitigated character. The application of galvanism in this fashion was persisted in for some days with some success, and doubtless, could the patient have been submitted to the current in his own room, the results would have been still better. But as he had to be carried up and down stairs, and conveyed in a cab to the house of the operator, these circumstances counteracted the beneficial effects of the electricity. Be that as it may, however, it was found necessary to give this method of treatment up, and, as matters were now getting critical, a consultation was held as to what further steps were necessary. At this consultation it was decided that the affection could hardly be sciatica. It was considered that there was some mischief going on in the sacro-iliac synchondrosis—a view certainly favoured by the great prominence of the joint, and by the extreme tenderness it exhibited. On this opinion, the patient was directed to lie upon an Alderman's couch for ten weeks, and to remain thus perfectly passive. The consequences of this line of treatment showed themselves in rapid enfeeblement of the patient's bodily powers, increased intensity of pain, absolute disgust for food, and a state of mental irritability which warranted the gloomiest forebodings. It was evident that things were now assuming so grave and alarming an aspect that something must at once be done, in abandonment of former modes of treatment, with a view, at all events, to stay the pain, which was rapidly killing the patient. A further consultation was held, and it was determined to fall back on the old diagnosis of sciatica. Hypodermic injection of morphia was now tried. One-sixth of a grain of the hydrochlorate was injected under the skin near the sacro-iliac synchondrosis. How shall I describe the result? If a miracle had been performed, it could not have seemed more marvellous to the patient. Hopeless of ease, broken down, and despairing, he was, in a moment, deprived of all pain and distress. His own words will best convey the almost incalculable blessing which this method confers upon the sciatic sufferer. Looking about him in utter astonishment, he said, "Well, that is really wonderful; what a glorious discovery! You(b) have given me the first moment of ease and comfort I have had for six months." And so, indeed, it was. It must not be supposed, however, that in a case like this a few injections restored a dying man to health. The injections had to be repeated nightly for many months. But this is

(a) I cannot avoid here expressing my belief that Dr. Radcliffe's important and highly philosophic researches on the electro-physiology (if I may so term it) of the nervous system are by no means as familiar to some of our authorities on nervous affections as they deserve to be.

(b) The operation was performed by Mr. Ernest Hart.

certain, this is absolutely unquestionable: from the first application the patient improved. He suffered but little pain, and that only for an hour or so before each injection—when, in fact, the effect of the previous injection had been exhausted. His spirits improved, he plucked up his appetite, he was enabled to pursue his usual avocations, and he soon began to walk about his room, and eventually walk out of doors. Indeed, his recovery, though slow, was gradually constant, and was never for a day retrogressive. *In the whole range of therapeutics I know of no instance where one remedy has produced so definite and wonderful a cure in so apparently hopeless and aggravated a case,* and I express my opinion thus decidedly because I feel that words cannot convey fully the immense significance of the facts.

Case 5.—Jane S., a married woman, aged 50, has had nine children and one or two miscarriages; ceased to menstruate about seven years since, but even now has occasionally an unpleasant discharge from the vagina. Lately has had a great deal of anxiety about some of her children, and has in consequence suffered loss of appetite, complains a good deal of flatulence, and has also diarrhœa not unfrequently, sometimes "brings up" her food, and has been once or twice sick in the morning, bringing up "a nasty frothy" liquid. Some pain over right hypochondria and tenderness over stomach. Found she could not get out of bed the other morning "for pain" in her hip; at first it was only painful when she moved in a particular manner, but at night it got to be a regular pain, which kept her awake. Says she feels most pain about the upper and outer part of the thigh. There was no affection of the liver in this case, and the pyrosis was soon checked by a few doses of sulphurous acid. Under cod-liver oil and perchloride of iron she improved in bodily strength, but the pain in the thigh continued and extended to the knee. This patient was an inveterate tea-drinker, and I found that on a diet of cocoa, instead of tea, she was much benefited. In this case I first tried the effect of hot fomentations with turpentine stupes, and the results were certainly such as to warrant a persistence in this plan where other methods cannot be employed; but I did not wait to try other drugs or systems, and at once, therefore, proceeded to give subcutaneous injections of morphia. The first gave immediate relief; the second, which was done by an assistant, seemed, she said, not to do her so much good; but the third brought the pain down very much—as she said, "the instrument the last time, Sir, touched the disease." After the fourth injection she seemed to suffer so little inconvenience that the morphia was discontinued. She has since remained quite well.

Case 6.—Lieutenant V., aged about 37, of full habit and of sanguine temperament, was brought to me last summer in consultation by Dr. Norton. At the beginning of 1861 he had, while in the Mozambique, been exposed to the terrible rains prevalent in that climate, and had been laid up in consequence with excruciating pain in the leg and thigh, which so completely lamed him that he was compelled to be moved about on a sort of truck. Finding no relief, he came to this country, and was from February to July, 1862, in Haslar Hospital, from which he was eventually discharged as an incurable case of sciatica. When I saw him, in conjunction with my friend Dr. Norton, he was then practically crippled. He could limp along with difficulty with the assistance of a stick. His appetite fortunately was still good, and in other respects his health was tolerably good. The flexion of the leg and thigh were, as they are in all cases of chronic sciatica, contracted beyond the normal, so that neither leg could be fully extended, nor the foot placed at right angles with the leg. For this reason, of course, he always walked less or more on the toes. Being a corpulent man, the wasting of the muscular part of the buttock was not very striking, but it was nevertheless perceptible. I at once advised subcutaneous injection of morphia, commencing with one-sixth of a grain of the muriate, and increasing to one-fourth of a grain, as necessary. I heard nothing more of the case till the patient was again brought to me in the autumn by Dr. Norton. The change certainly exceeded my best anticipations. The limb had regained its muscularity so as to be equal to its fellow thigh, and both extremities had lost a good deal of their fat. There was still some little contraction of the flexors of the leg, but the power of movement was indeed vastly improved; the lieutenant could walk well with but little feeling of subsequent pain, and with very little "limping." He spoke of himself as quite another man, and expressed a wish (to which I was opposed) to join another ship. Dr. Norton informed me that subcutaneous injection of morphia had been persisted in daily for some months, and with very little inconvenience and much personal satisfaction to the patient. It is but fair to state that, in this case, Dr. Norton assisted the nutrition of the "long disused" muscles by a series of Medical athletic performances, through which he put his patient each day after he had had his injection. It is needless to say that the muscular exertion without the administration of the morphia would not only have been useless, but even dangerous—a fact which Dr. Norton very sagaciously perceived, since the dose of morphia always preceded the physical exertion. The point is of interest, because it opens up the question whether the cure of sciatica may not be greatly shortened by the plan here carried out by Dr. Norton. As a further proof of the progress of the case, I quote the following memorandum received from Dr. Norton:—

"January 14, 1870.—Patient has to-day walked three miles at a stretch without stick or support, and without feeling any particular fatigue."

Case 7.—Mrs. D., married, aged 43, has had three children, and has been for some years separated from her husband, and on that account has suffered much and constant mental trouble. Has had pain in the right hip and thigh for some three years, and has been told that it was incurable. Pressure over the upper third of the course of the sciatic is attended with severe pain, which passes down almost to the foot. There is, however, no serious lameness. Pain is not worse at night. Limb, especially at buttocks, is wasted slightly, and after a walk of over half a mile the pain becomes almost intolerable. Has, under other care, been blistered, mustard-poulticed, linimented, and "galvanised." She says that the latter made the pain vastly worse for some days after the operation.(c) Having been put on cod-liver oil and perchloride of iron for a fortnight without any relief, morphia injections were commenced. As usually happens, the immediate result was wonderful to the patient. During the first week I injected one-sixth of a grain, increased to a quarter of a grain of the muriate with the best effect. The pain was kept under. The patient could thereby take more exercise; the appetite, as a result of the cheerful mental state, became almost voracious; and the improvement even in the course of the one week was very marked. This plan was kept up for seventeen days altogether, at the end of which time the patient considered herself sufficiently recovered to discontinue the injection. After some months she returned to me, saying that a relapse had followed a severe wetting; but two injections removed the pain completely.

Case 8.—Martha G., single, a seamstress, aged 25, in low cachectic condition, has had pain in the hip (which is especially troublesome at night) for more than four months. Had scarlatina about eight months before consulting me, and had a tedious recovery. Menstruates irregularly, and has "not enough" at the times. No ulceration of vaginal walls or uterine cervix. Drinks tea three and sometimes four times a day. She was ordered infus. quassiæ ʒj., liq. ferri perchlor. mxxx., ter die; and vaginal injections of milk-and-water. After three weeks there was a very manifest improvement in the general health, spirits, appetite, and menstrual discharge of the patient; but the pain continued undiminished. The case being an Hospital one, in which I could with difficulty arrange for daily hypodermic injection, a liniment, consisting of equal parts of soap liniment and chloroform, was ordered. This gave some temporary ease, but really nothing worth considering in a remedial aspect. I therefore directed her to come to my residence and be injected regularly every day. As usual, I commenced with one-sixth of a grain, increasing it to a quarter of a grain. The progress of the case was slow, but satisfactory. At first she complained that the effect of the morphia passed away in four or five hours; but subsequently, and on increasing the dose, she obtained rest for nearly the twenty-four hours. (The pain used to come on about two hours before the injection, but was immediately arrested by the latter.) After five weeks I considered her perfectly cured; the pain had completely gone. In this case there was hardly any tenderness on pressure, and there was no lameness; but even a short walk aggravated the pain. I may mention that in this, and in nearly all my cases, I insist on the patient substituting either cocoa or milk for tea or coffee, and indulging moderately in the use of spirits, beer and wine being avoided.

Case 9.—Mary —. This case illustrates very well the inability of morphia in some cases. The patient was over 50 years of age; had six children. She had been a sufferer for years, and had been under every form of treatment, including the electrical, save the hypodermic. Her symptoms were of the

(c) I feel quite confident, from the patient's description of the apparatus employed, that in her case faradisation, not galvanisation, was used. I can readily understand that the latter produced the effect stated. I have never seen it produce any other except when a brush was employed or the skin merely affected, so as to act on the "counter-irritant" principle.

usual kind, and were somewhat severe. On first seeing her, I recommended subcutaneous injection, and it was tried, one-sixth of a grain of muriate of morphia being given. She was an Hospital patient, and she came back after three days with great complaints. She had been very ill. Half an hour after the injection she felt sick, and vomiting lasted for six hours. She was left without injection till next day, when she was injected with one-twelfth of a grain. The following Hospital day I saw her she complained of having suffered in the same manner, but not so severely. Worst of all, there was no ease whatever produced. It was useless to continue the medicine, and the patient, naturally disappointed, went away before other remedies could be employed. I have had no other case like this one.

Case 10.—J. A., a gasfitter, aged 53, had been suffering for three months, and had been blistered and physiced without the least avail. Had very severe sciatica in the left thigh. The pain extended along the whole thigh, and was considerably increased on pressure. This case came to the Hospital in August, but was not put under the treatment properly till the first week in September. He then had an injection of one-sixth of a grain (usual solution), and next day was considerably improved. No medicine was given. The injection was continued for ten days, each day being an improvement, and before the end of October he was discharged perfectly well. This was a most perfect case, and, no other treatment being attempted, it illustrates the value of the hypodermic method as fully as possible.

INTERESTING CASE OF

PATHOLOGIGAL LESIONS IN CONNEXION WITH DISEASED HIP-JOINT. (ENTOZOA IN HEAD OF FEMUR.)

WITH REMARKS.

By Staff Assistant-Surgeon F. P. STAPLES.

Some time ago, a case was sent to me by a Medical Practitioner for treatment, for what he described as chronic rheumatism of the left hip-joint, with diarrhœa. When I saw the patient, he was moribund; his diarrhœa was incessant, and to this symptom my attention was altogether directed—in fact, so much was I engaged with the bowel affection, that I did not even examine the so-called rheumatic condition of the hip. Treatment, however, was of no avail, and the case terminated fatally within forty-eight hours of my first visit.

Before commencing the autopsy, which I was obliged to make for the satisfaction of the patient's friends, I observed a tumour, somewhat larger than a cricket ball, occupying the left iliac region, and extending downwards beneath Poupart's ligament. When the abdominal parietes had been reflected, and the small intestines removed, the tumour was found to have the following relations:—Anteriorly: Peritoneum, fascia iliaca, iliacus internus, and (crossing it obliquely from within outwards and downwards) the musculo-cutaneous nerve. Superiorly: The sigmoid flexure; while the anterior crural nerve coursed along its inner border. I divided the iliacus internus, and found that the tumour proper lay between its muscular fasciculi and the ala of the ilium. It consisted of old blood—or, rather, fibrinous clot—of semi-leathery consistence, arranged in concentric layers about a quarter of an inch in thickness, and easily separable. A careful dissection was then made to find out the vessel from which the hæmorrhage had proceeded, but owing to the infiltrated and generally diseased condition of the tissues, the search was unsuccessful. The soft parts being now removed from the ala of the ilium, the inner table of that bone was found to be extensively diseased. There were several patches of carious ulceration on its surface, and the slightest pressure was sufficient to break into the diploe. On further proceeding with the dissection, I found that the cartilage of the sacro-iliac synchondrosis had disappeared, and movement existed between the bones at that articulation; and, at the time, I felt tolerably certain that it must have been during the active stage of the disease here that the ileo-lumbar artery had ulcerated through, and so given rise to the hæmorrhagic tumour described above.

A fenestrated condition of the inner surface of the ilium opposite the acetabulum next attracted attention; and, finding that I could push my finger through the bone into the hip-joint, I was led to examine the articulation more carefully. On opening the capsule, a small quantity of claret-coloured fluid was found, apparently not purulent, but rather, I imagine consisting of disorganised blood mixed with the original synovia.

The ligamentum teres had quite disappeared, and the head of the bone and the acetabulum were quite devoid of cartilage. A section was then made of the head and trochantine portion of the femur. They presented the usual condition of scrofulously diseased bones: the outer shell was abnormally thin, showing yellow discoloration, the cancellous structure was so soft as to break down under the slightest pressure of the fingers, and the cancelli appeared to be full of oily matter. Immersed in this oily fluid were from about eight to twelve parasitic worms. When I first saw them I fancied I had simply found a nest of maggots or larvæ of some dipterous fly, but as there was no opening in the integument or alimentary mucous membrane (a fact in connexion with this case to which I would call especial attention, and which negatived such a theory), I resolved to examine them more carefully. They were about seven-eighths of an inch in length, and slightly thicker than a mature dracunculus. They were in active movement, but their contortions were not so vigorous as those of common larvæ, and they differed from these in colour, also, which was a pale yellow. These parasites were of equal thickness from one extremity to the other, and there was no ventral or other bulging.

On dissection, they appeared to consist of an outside investing membrane, smooth and glistening, and devoid of hooklets or spines. The contents of this membrane were of a homogeneous or granular character, and under a power of 250 diameters I failed to see any describable structure.

Remarks.—The above case appears of interest in many ways. In the first place I think such a tumour as I have described above is extremely uncommon, and I imagine that, had it been presented to a Surgeon during life, its diagnosis would have been very difficult, if not impossible. Its situation, its apparent connexion with the ilium, and the generally scrofulous condition of the patient, would almost have justified a diagnosis of iliac abscess, and it is quite unnecessary for me to point out here the number of other diseases for which it might, and I have no doubt would, have been mistaken. Pathologically it appears of some interest:—(*a*) It forms a good example of very extensive disease of the articular cartilages of the hip-joint and ligamentum teres without suppuration. (*b*) As an example of disease of the sacro-iliac articulation, also of a non-suppurating character. (*c*) As an example of an artery having become ulcerated through in disease of the pelvic bones. (*d*) It shows that under less favourable anatomical conditions—*i.e.*, with two or three abscess openings—how such a bleeding might have proved serious, if not fatal.

With regard to the entozoa found in this case in the cancellous structure of the head of the femur, I regret extremely my inability to give a more accurate description of them, but the fact is, that when I made the autopsy I was at an out-of-the-way station in India, and unable to consult an experienced helminthologist.

In Dr. Cobbold's work on the entozoa, I find the ecchinococci are the only parasites mentioned as having a habitat in bone; and that the larvæ which I found were not of the cestoid variety seems almost an unnecessary statement.

I have seen specimens of the pentastoma in the possession of Professor Aitken, and although they are very like the parasites I observed in size and colour, they differ from them in having such deep transverse markings.

I have no inclination to speculate further as to their exact classification, and can only vouch for their presence in the case in question, but I hope some of those gentlemen who are interested in the study of parasitic diseases may direct their attention to the bones of scrofulously diseased joints, as a habitat, where—judging from this case—they are likely to obtain specimens.

Netley.

A recent order of the Poor-law Board to the metropolitan guardians prescribes as one of the points to be observed, to entitle parishes to the benefit of the Amended Poor-law Act of this year, the following regulation as to cubic space—which is based on the recommendation of the Cubic Space Committee:—For each sick person 850 cubic feet; for lying-in women, 1200; for cases of an unusually offensive character, 1200; for infirm persons occupying the same room night and day, 700; for infirm persons able to leave their dormitories during the day, 500, and day-room accommodation at the rate of 200 for each person; for the able-bodied 300, and day-room accommodation.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

COMPOUND FRACTURES OF SKULL AND OTHER BONES—REMOVAL OF CANCER FROM THE MALE BREAST—AMPUTATIONS—WOUND OF JUGULAR VEIN, AND OTHER CASES ILLUSTRATING THE TREATMENT OF WOUNDS BY CARBOLIC ACID DRESSINGS, INCLUDING THE USE OF CARBOLISED GUT SUTURES AND LIGATURES.

(Under the care of Mr. COUPER.)

We joined Mr. Couper in his ward visit on Saturday, November 12, in order to see more of the cases treated by the carbolic acid method, some of which have been referred to in former Hospital reports. There are some capital cases of the kind now under treatment, including many compound fractures, so that such of our readers as are interested in the subject of Lister's plan of dressing wounds may profitably pay a visit to this Hospital. We will here only briefly refer to such cases as appeared to us most striking.

Three cases of compound fracture of the skull were admitted almost together last October. Of these only one was antiseptically dressed, and this one only escaped erysipelas.

Case 1.—R. S., aged 32, was admitted on October 21 with a scalp wound, two inches long, over the left parietal bone. The skull was fractured, and the finger inserted in the wound detected depressed bone the size of a half-crown. A heavy chain hook had fallen on the man's head from a considerable height; nevertheless, the patient was quite sensible, though weak from loss of blood. No wound of the dura mater was seen. The hæmorrhage was arrested by torsion, and Mr. Couper trephined, removing many bits of bone, and the wound was dressed in the ordinary manner with carbolic acid, carbolised gut sutures being used to draw the edges of the wound together, and the lac plaster being laid over all. The man has, so far, made good progress. Suppuration has not, indeed, been prevented, but the pus is quite sweet, and the wound now looks perfectly healthy. Mr. Couper attaches great importance to the diligent employment of the antiseptic measures, whether there be suppuration or not, so that the pus may be kept sweet and free from putrefaction; and, accordingly, this freely discharging wound was only exposed with the usual precautions, a stream of carbolic acid lotion playing over it all the time, and lint soaked in the lotion instantly veiling it as soon as the inspection was finished.

Case 2 was extremely similar to this one, the accident having happened in the same way, and bone being removed also after trephining by Mr. Maunder; but in this instance carbolised dressings were dispensed with, and severe erysipelas set in.

Case 3 was under Mr. Couper's care, but the antiseptic was not used, and the patient is now apparently sinking, erysipelas having set in six days after the injury. The man is aged 48, and was admitted on October 22, having been violently knocked up against a wall by a cab, causing a large wound in the forehead, and exposing a fracture of the bone opening the frontal sinus, but not apparently splintering the inner table. There were no cerebral symptoms in this case, either. Loose splinters were removed, and light water dressings applied, but, as we have said, erysipelas shortly supervened.

An instance of failure of the treatment is shown in the case of G. S., a man aged 56, who was admitted on October 21 with a scirrhous tumour of the left breast. Here Mr. Couper removed the whole gland, and endeavoured to brings the lips of the large wound together under carbolised dressings. With this object, deep and superficial sutures were employed of carbolised gut, as used by Professor Lister; but within the first forty-eight hours some bleeding within the wound caused considerable tension, and the stitches yielded. The wound being thus fully opened, the antiseptic treatment was given up, and ordinary dressings of weak carbolic acid lotion applied. The wound now looks fairly healthy; but it is deep, and suppurating freely.

Mr. Couper has been using these gut sutures in amputations lately in this way. Two cases of very severe injury—the one of a shoulder mangled by machinery, and the other of a thigh crushed under a waggon—have recently needed primary amputation of the injured limbs. Neither patient survived long enough to allow the result of the treatment to be tested, both sinking from shock within a short period; but the method adopted was as follows:—After all bleeding was arrested by torsion, long needles, threaded with stout carbolised gut, were passed through the opposed surfaces of the flaps, not perforating the skin, but including most of the soft tissues, and tied tightly, so as to bring the flaps into close union, a sufficient number of stitches being used to keep the whole of the flaps in perfect contact. The edges were then brought together with smaller similar sutures, and the face of the stump covered with the lac plaster and other dressings. Mr. Couper has employed this method in other cases with much success.

In the same ward with two of the antiseptic cases we may mention that there is a patient recovering from the operation for strangulated hernia, in whom the wound healed by first intention under a pad of dry lint, offering an instructive example of the good results so often obtained without any special treatment by antiseptics. We noted, in passing, a good case of skin-transplantation, in which a very large indolent ulcer in an old man's leg has been converted into a rapidly healing sore. As this operation is already becoming an established therapeutic measure, it is instructive to note any small modifications which may be adopted. It was said in the recent debate on this subject in the Clinical Society that Mr. Couper had split the little bit of skin before applying it to the granulating surface in this case. This is not quite correct. All that has been done has been in snipping off a portion of skin not to penetrate through the whole thickness of the cutis, and it has been found that the shallow bit so removed has grown apparently as well as pieces in which the whole thickness of the skin has been included.

In the same ward we saw a man whose case we reported earlier in the year as a successful instance of the carbolic acid treatment in compound fractures. The patient, aged 28, had sustained a compound fracture of the lower end of the humerus, opening obliquely into the elbow, and under this treatment the fracture quickly became simple, but bony union was long delayed, and after ten weeks the man left the Hospital for a convalescent institution, with the elbow bent and the arm fixed in a plaster splint. He has now returned with the humerus firmly united—the fracture having taken place on May 16—and he is likely soon to be able to resume work with as useful a limb as ever. The delayed union can hardly be attributed to the carbolic acid dressings in any way. Mr. Couper has had about a dozen compound fractures under the same treatment during this year, and of this number two were long in getting bony union of the fragments. The other case of this kind was lost sight of before union was complete, but in that above mentioned the final result is good. In all these cases the patients have suffered from very little constitutional disturbance, the fractures speedily becoming simple, and the healing process proceeding rapidly.

Another of the cases still under observation is a man, B. B., aged 24, but looking much older, admitted on October 19. His arm had been caught and crushed between an engine-frame and the wheel, and a fracture of the humerus resulted, with a ragged wound one and a half inches long, exposing the broken bone. This was carefully dressed at once with carbolic acid, and the treatment continued until November 10, when the wound having all but entirely healed, the dressing was removed, and stimulating lotion substituted.

One of the best cases of the kind, however, is a boy, aged 14, who came in on October 18, with compound fractures of the left radius and ulna and superior maxilla, and with large lacerated wounds of the forehead and scalp, into which mud had been rubbed at the time of the accident. The scalp wounds had been thoroughly soaked with carbolic acid, sewn up with the prepared gut sutures, and kept covered in the usual careful manner until November 5—eighteen days—when, the dressings being removed, the wounds were found to have healed completely, save at one small point, the enclosed portion of the sutures having disappeared, becoming absorbed or organised.

Another case is William W., aged 55, who was run over by a light cart on October 24, and sustained a compound fracture of the tibia and fibula. This also was treated like the other cases, and the healing process went on without an untoward symptom, and with no more discharge than that afforded by the serous oozing from a skin abrasion in the neighbourhood of the fracture, which was irritated by the acid applications.

The last of such cases which we saw was a man aged 22—Joseph W.—who fell from a ladder some thirty feet, and struck his thigh against a beam in the fall. He was brought to the Hospital on September 22, with a compound fracture of the femur, in the lower third, a small opening in the skin having

been made by the protrusion of one of the fragments. This, too, was treated after the same method, and with like good results, the man being now practically well, although the limb is kept at rest on a long splint.

There is one amputation case in the wards which has been treated antiseptically—a middle-aged man, whose foot had been removed at another Hospital by Syme's operation eighteen months previously. He had suffered so greatly from pain in the stump that it was thought necessary to amputate higher up. This was done by Mr. Couper on September 7, and the stump dressed with carbolic acid. By the end of ten days the flaps had united well, and the stump was as well as it is at present; for, although the dressings have been most diligently persevered with, a little bit of dead bone has kept up sufficient irritation to keep a couple of sinuses going, and to prevent the line of the wound from complete union.

In one of the small wards is a man suffering from suicidal mania, who was thought at the time of his admission to be in delirium tremens, and who was treated accordingly with stimulants, and then with the addition of five grains of morphia during the day. The maniacal excitement continuing, all stimulants were discontinued, and free doses of bromide of potassium substituted. After taking five drachms of the drug daily, on the third daily all the violence and excitement disappeared, and have not since returned. He has, however, still the same delusions, and is continuing the medicine until his removal elsewhere. We may note that chloral hydrate has been employed in three cases of delirium tremens lately, but with unfavourable results, all three patients dying. The drug was given in half-drachm doses, repeated sufficiently often to procure sleep. In one case so much nausea was produced that it was almost impossible to force it upon the patient; and in another the medicine seemed to be producing no effect for the first four-and-twenty hours, and then the patient seemed suddenly to come fully under its influence, and sank rapidly.

We are unwilling to close this report without glancing at a case of very rare interest; albeit, our notice must be brief, as we believe that the facts are about to be brought in detail before one of the societies.

A lad, going down stairs with glass in his hand, fell, and the broken glass cut deeply into his neck, completely dividing the internal jugular vein. Mr. Couper enlarged the wound, tied both ends of the vein with carbolised gut ligature, saturated the wound thoroughly with strong carbolic acid lotion, and dressed it with the ordinary precautions. The lad subsequently suffered from a severe attack of pericarditis, and then from pleurisy, but has pulled through both, and is now slowly recovering his strength. The point of main interest in the case—beyond, indeed, the fact of recovery after this injury, which is thought to be unprecedented—is the possibility which has been suggested of the acid application to the wound having caused the pericarditis by extension of inflammatory action down the coats of the vein to the great vessel at the root of the heart. It certainly seems a somewhat wild charge to bring against the acid, when the inflammations might be explained in so many other ways; but it shows at least that the "antiseptic" treatment is fairly on its trial at the London Hospital, and meeting with free criticism, as well as with consistent and persevering employment.

WESTMINSTER HOSPITAL.

CASE OF EMPHYSEMA, WITHOUT DETECTABLE FRACTURE OF THE RIBS, OR ANY WOUND ON THE EXTERIOR OF THE CHEST OR FACE.

(Under the care of Mr. HOLTHOUSE.)

J. H., aged 3½, was brought into the Hospital at 2 o'clock p.m. on September 24, 1870, having been run over by a four-wheeled empty van; the wheels were seen to pass over his left clavicle towards the left thigh.

On examination, at 2.30 p.m., he was emphysematous over the head, neck, and trunk, the eyelids were completely closed, and the supra-clavicular spaces were especially swollen, but the emphysema did not extend to the limbs. There was no external wound or breach of surface, but the left thigh was fractured about its centre. He was very carefully examined for fractured ribs, direct pressure being made on each: no pain to be recognised, nor crepitus, nor bruising. On auscultation there were no definite symptoms; the resonance on percussion was slightly increased; the respiration puerile, but marked by the crepitation of emphysema until deep pressure was made. No dyspnœa, or cough, or hæmoptysis, or any physical signs of pneumo- or hydro-thorax. The emphysema lasted for five days, disappearing last of all from the supra-clavicular spaces. He had some slight cough, no expectoration; no increased heat of skin. No medicine was given; he had milk diet, rice pudding, and a bandage (broad) round his chest.

October 18.—Boy cheerfully convalescent; has not cried once when his chest was washed or examined; respiration perfectly natural.

In some clinical remarks on this case, Mr. Holthouse observed that emphysema without a fracture of ribs or a penetrating wound of the chest was a rare occurrence, and difficult of explanation—it is said to arise from a rupture of the lung, the air making its way into the posterior mediastinum, and travelling upwards into the neck; but even then it is not very clear how it makes its way through the deep fascia of the neck into the subcutaneous tissue. It is also to be borne in mind that although no fractured ribs could be detected, this does not amount to a demonstration that none existed. Limited emphysema may arise from a fracture of some of the bones which form the boundary of the nasal cavities, or communicate with them; but such emphysema is always of limited extent, and very rapidly subsides. A young woman was going down stairs with a baby in her arms, when she stumbled, and to prevent herself from falling headlong, she threw herself against the banister, her nose and forehead striking it with some force. The blow was immediately followed by hæmorrhage from the nostrils, which gradually stopped; but the first time she used her pocket-handkerchief, air rushed into the loose areolar tissue of the eyelids and the lower part of the forehead and face; so that when she was brought to me the eyes were closed and the face much swollen. I directed her not to blow her nose for the next day or two, and to come to me at the Hospital on the following day, that I might show her to the students. She came; but to my disappointment the emphysema had entirely disappeared. A local emphysema of still more limited extent, but of a dangerous character, has been produced in forcing air into the cavity of the tympanum through the Eustachian catheter; this instrument having wounded the mucous membrane in its passage, part of the air driven in has escaped into the submucous tissue, producing emphysema of the soft palate, uvula, and glottis, and thus death from suffocation. A fatal case of this character occurred many years ago in this metropolis.

CASE OF PHLEGMASIA DOLENS IN THE MALE, WITH CLINICAL REMARKS.

(Under the care of Mr. HOLTHOUSE.)

T. H., aged 39 (labourer), a dark, thin, man, was admitted into Mark Ward, Westminster Hospital, September 1, 1870, with a hard brawny swelling of the right lower extremity. The measurements of the two limbs gave the following results:—Right, just above the knee, 16 in.; left, ditto, 12¾; right upper third, 21¾; left ditto, 17; right calf, 14½; left ditto, 11; right instep, 13½; left ditto, 12. He stated that on the 25th, without any obvious cause, he felt pain in the groin, which was followed shortly afterwards by swelling of the limb and stiffness. These symptoms went on increasing, so that on the 28th he could not get out of bed, and on admission the pain in the upper third of the thigh was most severe. The bowels were confined; the tongue furred; and the pulse 100. Hot fomentations were applied to the whole limb. Haust. sennæ comp. ʒiss. given, and he was put on beef-tea and milk diet.

Sept. 10.—Was first seen by Mr. Holthouse. The swelling was then much diminished; the leg flexed; the superficial veins of the whole limb and buttock larger and more prominent than in the other limb. He was in no pain while lying quiet; but any attempt to straighten the knee, or pressure made in the course of the femoral and popliteal veins, was painful. A distinct hard and tender cord could be felt in the groin and upper part of the thigh; temperature of the limb normal; the flexion of the limb came on as the swelling subsided.

14th.—The foot was still very œdematous, but soft; the rest of the limb not much larger than the other. He was weak, and had no appetite. Full diet. Porter ℍ.ss. Mist. cinchonæ cu. ammon. ʒj. ter die.

At this stage of the history of the case, let us pause to inquire what is the name and nature of the swelling which affected the limb of this patient. The only affections to which it bears any resemblance are simple dropsy, phlegmonous erysipelas, and diffuse cellulitis; but it differs from the first in the brawny hardness of the swelling, and in the pain, which was felt most acutely in the course of the large vessels of the limb; from the second, in the absence of redness of the skin, and in its mode of termination by resolution, and not in sup-

puration and sloughing; and from the third, likewise in its mode of termination and the absence of those severe constitutional symptoms which accompany cellulitis. The only disease, then, which is characterised by the symptoms which mark this case, is phlegmasia dolens. Now, you know that this affection is most frequently met with in one or both lower extremities of the female after parturition; but it is not peculiar to the puerperal condition, nor does it invariably affect the female or the lower limbs: it has been met with in the arm in connexion with cancer of the breast, and in the leg in cancer of the uterus, and this leads us to consider the pathology of the affection. The large veins, as the iliac, the femoral, and popliteal, are blocked up by coagula—thrombosis, as it is called—and this blocking up of the large vessels gives rise to congestion and distension of the smaller and more superficial ones; hence the marked contrast in the size and prominence of these vessels in the two limbs; hence, also, the effusion into the areolar tissue, and the great swelling—the amount of the latter probably depending on the size and number of the vessels implicated. The hardness of the swelling, together with the heat and pain, prove, however, that it is not a mere passive effusion or ordinary dropsy, but consists also of more or less inflammatory exudation, the swelling holding a sort of intermediate place between ordinary œdema and cellulitis—less passive than the former, less active than the latter—and nearly always terminating in resolution, rarely in suppuration. But what is the cause of this coagulation of blood in the veins? According to the doctrines formerly in vogue, it was held to be the result of inflammation of the veins—adhesive phlebitis, as it was called; but modern research has thrown doubt on the existence of such a disease as a primary affection and a cause of the coagulation. The thickening of the coats of the vein and its diminution of calibre, which were relied on as proofs of inflammation, are not, it is affirmed, due to inflammation, but to contraction of the vessel on the coagulum within: for, if the latter be removed, and a stream of water be directed through the vein, it will expand to its normal size. If not to inflammation, to what, then, is the clotting within the vessels due? Coagulation, to the extent of producing such results as were observed in this case, probably never occurs in healthy individuals. In these, if a vein be injured, clotting may take place as a conservative process or as a means of repair, but it is limited to the immediate seat of the injury, and does not extend beyond the nearest collateral branch. In all such extensive clotting, therefore, as we may assume to have taken place in the present case, there must be a precedent disposition in the blood itself to undergo such change, and then very slight local causes will suffice to determine it, such as pressure on the veins, inflammation in the tissues surrounding them, or laceration of their coats. When, under such general and local influences, coagulation has once begun, it is apt to spread beyond the limits of the primary irritation, as we see in the swelled leg of the puerperal female, where coagulation, commencing in the uterine branches of the hypogastric vein, extends to the femoral trunk on the same side. It seems to be admitted that when coagulation has once taken place inflammation of the vein may follow, and it is difficult to account for the tenderness on pressure in the course of the femoral and popliteal veins of this patient, unless some inflammation of their coats was present. But what was the origin of the thrombosis or phlebitis in the present case? For some time I was unable to discover any cause for it, except it were in the general debility of the patient; and it was not till the swelling of the limb had subsided, and the man might, *pro tanto*, be considered convalescent, that the possible, if not the probable, origin of the disease was revealed. I observed that, although well as regards his limb, he continued pale, thin, and weak, without appetite or energy, and could not be got out of bed without urging; he also complained of a constant pain across the lower part of the abdomen. A careful examination of this cavity failed to detect any tumour or any fæcal accumulation, but aperients always relieved the pain. I will now resume the reading of the case.

On October 17 this note was made—"Finding him again in bed, asked him why he did not try to get about a little, when he declared he could not sit up long, he was too weak; he complained also of the abdominal pain, and said his piles troubled him so." This was the first time I had heard of his having piles; I therefore at once examined the rectum: the skin around the anus was healthy, and there was no protrusion externally; but on introducing my finger, which caused him severe pain, I found the bowel contracted, irregular, and of a scirrhous hardness—in short, there was unmistakable cancer. Now it is not at all unlikely (indeed it is very probable) that the phlebitis, to which I attributed the swelling of the leg, had its starting-point in this disease of the rectum; and as the phlegmasia dolens of the puerperal female originates in a phlebitis of the uterine veins, so the disease in the present case may have originated in a like condition of the hæmorrhoidal veins. As regards the treatment which was adopted in this case, it consisted simply in the application of fomentations of hot water to the limb, and the exhibition of bark and ammonia internally, and afterwards quinine, and under this all the symptoms referable to the limb gradually subsided; first the swelling became softer, so as to resemble ordinary œdema, and then a gradual diminution of the bulk followed, so that on October 8 a slight œdema of the foot was all that remained. You will naturally ask, How has this restoration of the limb been brought about; has the circulation through the plugged vessels been re-established, or have collateral channels been opened up, so as to restore the equilibrium? This is a question which cannot be absolutely determined without a dissection of the limb; but what we know to occur in analogous cases may possibly have happened in this. The coagula may have contracted and become more or less firmly fixed to one side of the vessel, the blood passing between the clot and the other side; or, in certain rare instances, it has been known to channel for itself a passage through the centre of the clot; or, lastly, the plugged vessels may be permanently obliterated, and the circulation be carried on by collateral branches; possibly one or other, or one or more, of these changes may have taken place in the present case. As regards the disease of the rectum, the treatment can only be palliative, but the poor fellow has already obtained great relief by the introduction of a morphia suppository into the bowel every night. Should the disease make rapid progress, and the pain on defecation be great, it may be expedient by-and-bye to make him an artificial anus in the left loin, and so do away with the suffering occasioned by the passage of his motions over the diseased surface.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 19, 1870.

ANDREW WOOD'S "HORACE."

That Horace is a universal favourite with men of letters, is a truism, and it is needless to say what a variety of tastes are gratified by his writings. These are, as Dr. Andrew Wood says, "so genial, so versatile, so full of wit and humour and downright common sense; so at once amusing and instructive; combining his own *utile* and *dulce*; so true to human nature—not merely Roman or Italian, but universal human nature—in all times." Let a man's calling or position be what it may, he finds something about it—perhaps three words only—said so well and aptly, that the mind involuntarily adopts Horace's words. The parson may, with Bishop Lowth, show the parallelism between Horace's

> "Quem tu Melpomene semel
> Nascentem placido lumine videris,"

and King David's "Qui habitat in adjutorio altissimi;" and may quote the "Credat Judæus Apella, non ego"—

> "This miracle the Jew Apella may
> E'en, if he please, believe—not I;"

and the allusion to the Jews' Passover—

> "To-day 's the thirtieth Sabbath; surely you
> Would not offend the circumcised Jew" (Sat. i. 9)—

as Horace's testimony to the antiquity of the Jewish rites and their notoriety in the then metropolis of the world. The lawyer thinks of "Solvuntur risu tabulæ" when a shaky case is laughed out of court, and the "Ego verò oppono auriculam" as the service of a subpœna. Physic meets with many a gratifying bit. The "medicus multo celer atque fidelis" (the "Physician faithful, also smart," as Dr. Wood renders it) gives us a glimpse at the estimation our Roman predecessors enjoyed in family practice. If a Physician wants to bid a young man be prudent in diet, and hints to him that if he were recovering from typhus fever or a compound fracture he could not live higher than he now does in youth and strength, he may tip his advice with—

> "——Tibi quidnam accedet ab istam
> Quam puer et validus præsumis mollitum, seu
> Dura valetudo inciderit seu tarda senectus."
>
> "When years advance, and weak old age shall long
> For softer treatment, what have you to add
> Of such indulgence, if while young and strong
> You it anticipate; if then you're sad,
> From broken health or evils that belong
> To frail old age!"

When sending people out of town to a health-resort, the Physician may well inform himself

> "Collectosne bibant imbres, puteosne perennes
> Jugis aquæ."

If we wish to recommend a wine to suit a feeble patient, can we better describe it than

> "——Generosum et lene,
> Quod curas abigat, quod eum spe divite manet
> In venas animumque meum; quod verba ministret."

How many statesmen going out of office, have recited—

> "Fortuna sævo læta negotio."

How many men, who have preferred poverty to dishonour, have muttered—

> "——Probamque
> Pauperiem sine dote quæro."

How many a wise man, struggling with the madness of the populace, has said, "Justum et tenacem propositi virum," and has nerved himself with "Fortiter adversis opponite pectora rebus."

But let us say, further, that if there be one trait by which the modern Scotsman is honourably distinguished—the determination to rise in the world by sheer hard work, to give his children the best education possible, to confess without a blush the original lowliness of home, and to be fortified against folly and vice by the shrewdest and canniest of moral maxims—all these things are to be found in perfection in Horace. Be it permitted us to say, all his model characters—his own father, and Ofellus, the sage, unlettered, rustic, and home-spun wit, were Scotsmen. Let us quote Dr. Andrew Wood's version of Horace's school life—how his father will not let him go to the mere parish school at twopence a week, nor yet to the young gents' academy, with the snobs of the village; but fits him out like a gentleman, sends him to the Eton or Rugby, to the Hornby or Barry of the day, and thence to the University of Athens to finish him—and ask whether this is not a picture of a daily scene in Scottish life and manners? Speaking of his good character and position—

> "——I to my father owe
> All this and more. He would not have me go
> (Though poor upon his meagre and small farm
> He lived) to Flavius' school, whither there swarm
> Of the Centurions great, the sons as great;
> On their left arm, their satchels and their slate
> Are hung; their paltry copper fees to bear,
> On eight successive Ides they must take care.
> But he to Rome his boy to send had spirit;
> There to be taught (with boys who will inherit
> The lofty rank of knight and senator)
> The liberal arts—he their competitor.
> Our dress and following slaves, if me had seen
> E'en tho' amidst great people it had been,
> That these expenses surely were defrayed
> From an estate paternal, might have said.
> With me, as guardian incorruptible,
> My sire himself was present with good will
> At all my classes."

There is many an Eton boy who might take a lesson from Horace in his mode of speaking of his "governor"—

> "Of such a father, while my mind remains,
> I'll never be ashamed; nor e'er take pains
> To prove in my defence 'twas not my blame
> My parents had not an illustrious name,
> Nor were free born."

We cannot help, then, feeling that it is congruous with the eternal fitness of things that a thorough Scotsman should be a worshipper of Horace, and we thank him for having given one conspicuous proof that the pernicious counsel to substitute "useful" modern literature for the wisdom of the ancients has not worked its will in Edinburgh, and that even yet Medicine is not divorced from literature. In fact, so long as mind rules body, so long will a knowledge of the passions and foibles of man be precious to the Physician; and there is no one who will give him juster and kindlier views of these than Horace.

In criticising a translation of Horace, it is impossible to avoid treating of the manner as well as of the matter; because, inexhaustible as are the stores of wit and wisdom in Horace, still more marvellous is the conciseness, the kind of literary workmanship so exquisite that, careless as it may seem, no flaw is to be detected, no superfluous word erased. Judged on these grounds, there are several passages in which Dr. Andrew Wood may hold his own in competition with other translators. For instance, the concluding lines of the "Town and Country Mouse," where the latter says—

> "——'Haud mihi vitâ
> Est opus hâc' ait, 'et valeat. Me sylva cavusque
> Tutus ab insidiis, tenui solabitur ervo'"—

is thus given by Martin:—

> "'Ho!' cries the country mouse 'this kind
> Of life is not for me, I find.
> Give me my woods and cavern! There,
> At least, I'm safe! And though both spare
> And poor my food may be, rebel
> I never will; so fare ye well.'"

Dr. Andrew Wood's version—

> "Then, says the country mouse, 'Off let me trot—
> A life like this to live, it suits me not—
> Farewell! I'll to my wood and hole repair,
> And eat, secure from snares, my vetches there.'"—

is certainly superior in conciseness, and not less vigorous.

It is, in fact, impossible to reproduce so concise, epigrammatic, and syncopated a language as the Latin in English, without an obscurity than can only be obviated by dilution. Nay, more; every man has his own genius—a *facundia verborum* has undeniable charms of a certain sort, and no one can deny Dr. Andrew Wood the grace of fertile diction. Hence, we need not complain if he has used a fair amount of "periphrastic treatment" in order to make the poet's meaning clearer, and save the necessity of foot-notes. But there is one radical misfortune which seems to have hampered this translation from its earliest conception. Some "local" critic made the egregious suggestion that the Spenserian or "Don Juan" stanza would be fit for a translation of the "Satires of Horace," and Dr. A. Wood fell into the snare. Now, we hold it to be utterly impossible to adapt this thoroughly to a continuous poem in Heroic verse. To write in the Spenserian stanza, a man must think in it. Examine any great work—say, Ariosto, Tasso, Spenser—or a series of sonnets written in a similar though longer strain, and it will be evident that the ideas as they rise are measured out in successive portions; so much of incident, or adventure, or reflection is poured out at a time as will fill the eight-, ten-, or fourteen-line measure, each stanza of which comes naturally to a close with something of epigrammatic concinnity. But in Horace's "Satires," where the ideas flow without any such rhythmical order, one stanza must be made to run into another—a thing, as Dr. Wood says, which ought to be avoided, but cannot—and the beginning a new subject in the middle of a stanza is a source of confusion. We say this to satisfy the "animum

censoris honesti," and beg of Dr. Wood to recast such of the Satires as please himself the least, and throw the *disjecta membra poetæ* into the octo- or deca-syllabic metre in his next edition. We thank him for his book, and for the example he has set, and assure him that his Medical brethren will see with gratification the honours that are his due in the field of literature.(a)

GUNSHOT INJURIES OF THE HEAD.

The serious nature of their immediate or remote effects, the difficulties to be encountered in their treatment, the insidious and frequently fatal complications which interrupt the progress of apparently the most favourable cases, the entirely unanticipated success which in some instances rewards the almost despairing treatment of others, the trivial deviation from prescribed treatment or regimen which may in some instances divert the result from life to death, while in others indulgence in the most unwarrantable liberties escapes with impunity, give to this class of injuries a peculiar interest and importance in the minds of both Surgeons and Physiologists. It is mainly from the Surgical or practical point of view that we purpose at present to consider them, making merely a passing reference to a few of those exceptional cases which may fairly be termed physiological curiosities. The "Medical History of the British Army in the Crimea" furnishes us with several of these. Thus we find one case recorded in which the patient lived for two hours with the whole posterior half of the arch of the cranium depressed by a round shot; another in which life persisted for half an hour, although the same part of the skull had been completely carried away by a similar missile; another in which a musket-bullet perforated the cranium, and in its exit opened the pharynx, and the man lived four days, insensible and vomiting incessantly (the ejecta being mixed with brain-substance), and yet able to walk, and constantly endeavouring to get out of bed; another in which a man lived for ten days without paralysis, and perfectly sensible until the ninth day, when he began to rave, although a shell had produced a compound fracture of the right parietal bone, with an opening into the skull half an inch in diameter, from which much brain-substance and fragments of stone escaped, and through which the finger could be readily passed some distance into a cavity within the skull. On post-mortem examination a piece of bone was found (driven completely through the right ventricle) lodged in the corpus striatum.

One of the most extraordinary cases of recovery upon record is probably that related by Dr. Harlow, of Cavendish, U.S. A man was shot through the head with a tamping-iron three feet seven inches in length, one inch and a quarter in diameter at its largest end, and weighing thirteen pounds and a quarter. This formidable missile entered just anterior to the ramus of the left inferior maxilla, passed upwards and backwards towards the median line, and escaped from the head at the junction of the coronal and sagittal sutures, having traversed the left anterior lobe of the cerebrum, extensively fracturing the frontal and parietal bones, causing protrusion of the left eye from its socket, and lacerating the superior longitudinal sinus. The accident occurred in 1848, and in 1860 the man was still living and in the enjoyment of good health.

A considerable number of examples have been collected in which bullets have remained buried within the skull without causing death during many weeks and months, and have been found, on autopsy, enclosed in perfectly formed membranous cysts. Hennen mentions having seen no less than five cases in which a ball had lodged in the substance of the cerebrum without immediately producing a fatal event. Dr. Hamilton, of the United States army, states that the longest period during which the patient survived was in the case recorded by Langlet, in which a ball weighing seven drachms remained eighteen months in the brain, enveloped in a sort of membranous covering attached to the dura mater and containing pus. During the Crimean campaign no such instances occurred. All cases in which grapeshot or other missile lodged within the skull were invariably fatal, generally within a few hours; but in one instance life was prolonged for a month, and on post-mortem examination, the bullet was found lodged at the base of the left anterior lobe of the brain, enclosed in a sac, which contained pus, and the lateral ventricles filled with the same fluid. During the American War a very few extraordinary and exceptional recoveries after penetrating and perforating fractures of the cranium were recorded, and, in rare instances, the fatal termination has been long delayed. In one case a bullet entered a little to the right of the occiput, and passed out somewhat below and to the left of the vertex. The intervening bridge of bone was about three inches wide. A cerebral hernia occurred at the place of exit. There were no evidences of impairment of the cerebral faculties. The man was able to perform the duties of an orderly four months afterwards.

Professor Longmore considers one of the most striking features of gunshot wounds of the head to be the small amount of *evident* injury, compared with the amount of *real* injury. There is not the same extensive disfigurement as is observed in cases of injury of the head as usually seen in civil Hospitals—such as displacement and laceration of the scalp, stripping of bone, etc. There is comparatively little bleeding; yet the condition of the patient may be as serious as if his head had been beaten by repeated blows with a hammer or crushed by a carriage-wheel. The experience of the civil Surgeon leads him only to anticipate a speedily fatal issue when the usual evidences of deep and extensive injury are obvious to sight, while the experience of the military Surgeon causes him to hesitate in forming a prognosis, however limited a gunshot injury may appear to be on first observation. The inflammatory action following gunshot wounds of the head is frequently of unhealing, rather than of reparative, character. The violence which has inflicted the injury is in excess of the restorative powers of the structures involved, and sloughing, diffused meningitis, and encephalitis, deep-seated abscesses, and long-continued purulent and sanious discharges are frequent results.

Conical bullets produce more extensive fissures and starring of the skull than do round bullets.

An important point in practice is that the condition of the opening in the inner table caused by the penetration of a bullet differs from that in the outer table, in being generally larger, more jagged and irregular in outline, and exhibiting several cracks proceeding from its margins. Sometimes segments are completely detached. The extent of such conditions varies in different cases, and cannot be diagnosed from any external appearances of the outer table. Mr. Erichsen remarks that this greater splintering of the inner table does not depend exclusively upon its greater density and brittleness, but partly on the direction of the fracturing force, as at the aperture of exit of a bullet passing entirely through the skull the outer table is splintered more than the inner—in consequence, according to Mr. Teevan, of its being made by the ball *plus* the fragments of bone driven out from the proximate table and the diploë. But the fact of the vitreous table being fissured and sometimes depressed, while the external table remains unbroken, would show that the greater brittleness of the former is certainly influential in producing the result alluded to. There is in the Army Medical Museum of the United States a specimen, believed to be unique, in which, without any apparent lesion of the external table, a fragment of the vitreous plate of the frontal bone was found to be completely detached and depressed upon the dura mater. Mr. Longmore, in his paper on Gunshot Wounds in the second volume of Holmes's "System of

(a) The "Satires of Horace," translated into English metre by Andrew Wood, M.D., F.R.S.E., etc., etc. Edinburgh: Nimmo. 1870. Pp. 169.

Surgery," gives a drawing of this preparation. He considers the outer table to present signs of having been contused, though not fractured. Dr. Otis attributes the mark on the outer table to its having become softened in consequence of destruction of the pericranium by the ball. Dr. Demmé has recorded four cases, during the campaign of Italy, in 1859, in which injury to the internal table was discovered on post-mortem examination, without apparent injury to the outer table; and in one of them two square inches of the inner table had become detached.

The remote consequences of apparently slight contusions of the head by gunshot, though uncomplicated with fracture, are not to be lightly regarded. The patient may perfectly recover from all local effects, and may seem robust, and all the bodily functions may be regular, but he may still suffer from headaches, fits of nervousness and palpitation, impairment of memory, susceptibility to cerebral excitement, and irritability of temper from very slight causes.

There is often great difficulty in establishing the diagnosis of gunshot fracture of the skull, without depression, when there is no wound of the scalp. The subtegumeutary ecchymosis is almost necessarily very great, and prevents the discovery of the fracture until a late stage in the case, or until death affords the opportunity of demonstration. When the integuments are laid open the existence of fracture can generally be ascertained with the finger. There may be a simple furrowing of the outer table, without injury to the inner; a fissure may extend through both tables, or there may be several fissures in distinct lines; there may be splitting of the internal table, without fracture of the outer; or, both tables may be comminuted and lie loosely on the dura mater, without pressure or much alteration in the outline of the skull. When the excavation or furrowing through the diploë is deep, and the cut edges of the outer table sharp, the injury may be mistaken, if care be not exercised, for a depressed fracture of both tables. Exfoliation of a small portion of bone occurs in the most favourable cases; but frequently inflammation extends through the diploetic structure, and abscess results between the internal table and the dura mater. The records of the American war attest how slight a chance of recovery is afforded by trephining in such cases, and confirm the experience of modern Surgeons, as opposed to that of Pott, that trephining for matter between the bone and dura mater is almost invariably unsuccessful, although, according to the best modern authorities, it affords to the patient the only chance of recovery.

Very extensive fissured fracture, without depression, may exist, and be quite unindicated by physical signs or general symptoms. The outer table may be fractured and very slightly depressed without furrowing; the diagnosis between such an injury and fissured fracture extending through both tables becomes then excessively doubtful.

It is remarked as a curious fact that, in cases of comminution of both tables, the symptoms and results are generally less grave than when a single fissured fracture exists. Mr. Longmore considers that this may be accounted for by the force of the ball happening to be expended locally on the part broken into fragments, instead of being diffused more generally over the cranium. The more open condition of the wound also affords a facility for the removal of small fragments, so that, if the dura mater be uninjured and proper care be taken to prevent inflammatory action, a favourable result may be procured.

The experience of military Surgeons in the treatment of gunshot injuries of the head inclines them to employ restricted diet, quiet, the absence of all stimuli, with the occasional use of purgatives, the removal of all local sources of irritation (such as depressed and sharp-pointed spiculæ of bone, and foreign substances of all sorts), and the application of cold, in preference to large bleedings and the use of mercury and antimony as prophylactics of sthenic inflammation. In attempting by such means to avoid this danger, the tendency to the more fatal pus-forming inflammation may be induced. Antimonials may not act in this way, but the general opinion now is that large bleedings do; and whatever may be the effects of mercury in removing the serous and plastic results of inflammation, it is not now believed to have any influence in preventing its access.

We must defer to a future number the consideration of penetrating, perforating, and depressed gunshot fractures of the skull, the results of trephining in such cases, and the indications for and against that operation.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. VIII.

We have written somewhat fully on the mode of action and remedial powers of hydrate of chloral, nitrite of amyle, and bromide of potassium, but we shall content ourselves with noticing much more shortly a few more of the most remarkable substances added to our therapeutical resources during the last few years. We do not pretend, it must be remembered, to even mention only, much less to describe, in these papers all our recent gains in the field of therapeutics, but only to note some of the most remarkable of them.

Among these is a very curious organic base, named *apomorphia*, which was discovered by the late Dr. Matthiessen and Mr. C. M. A. Wright, while experimenting in the laboratory of St. Bartholomew's Hospital, in April, and reported on to the Clinical Society by Dr. Gee, in May, 1869(a). It is obtained by submitting the chloride of morphia for several hours to the action of strong hydrochloric acid at a high temperature. The result is the chloride of apomorphia, from which the base may be obtained without difficulty; but as it is very unstable, the salt has been used. Chemically the base, apomorphia, differs from morphia by containing the elements of a molecule of water less. Its chloride is a white crystalline powder, soluble in thirty parts of cold, and in much less of warm water. As a medicine it possesses most remarkable emetic powers, acting rapidly and certainly. Dr. Gee says, "We have never yet failed to produce vomiting when we wished to do so, and by a single dose." The salt is free from all local irritant properties, and can therefore be used hypodermically; its dose is very small—one-fifth of a grain by the mouth, or one-tenth of a grain hypodermically, acting rapidly and freely; and its action is not accompanied or followed by any ill effects. "The vomiting," Dr. Gee says, "seems, in most cases, to be critical, as it were, and put an end to itself; there is no subsequent nausea." In illustration of its action, we quote a few of the examples mentioned by Dr. Gee. "A man brought drunk to the Hospital by the police, injected with the one-tenth grain; he vomited in six minutes. Another drunken man, injected with one-fifth grain, vomited in three minutes. A drunken woman, injected with one-tenth grain, vomited in three minutes." In one or two instances, Dr. Gee reports, the circulation and the muscular power were depressed to a greater degree than could be accounted for by the vomiting, though not so much as to cause the least anxiety. A boy of 9 was brought to the Hospital in a state of maniacal excitement from some undiscoverable cause. He was injected with one-tenth of a grain of the chloride. "In four minutes he became quite quiet; in seven minutes he vomited freely; was put to bed, slept soundly, and awoke next morning quite well." This suggests, as Dr. Gee observes, the question whether the drug may not, in larger or more frequent doses, be "a contra-stimulant similar to blood-letting, antimony, and veratria."

Dr. Gee has not, so far as we are aware, given to the Profession any further information on the use of this salt; and the only other notice of it that we have met with is a short communication from Dr. F. M. Pierce, who confirms Dr. Gee's statements. He says, "It is the most speedy and most certain emetic known—the tenth of a grain of the chloride, or

(a) *Transactions of the Clinical Society.* Vol. ii., 1869, p. 166.

even less, is the dose required. It may be given safely to children, and acts more rapidly when hypodermically administered" than when given by the mouth.

Should it turn out that the drug has no other medicinal value than as an emetic, it will be, we scarcely need say, a most important addition to our Materia Medica. No other emetic that we know of can be administered hypodermically; and all others are bulky in dose, very uncertain in action, and produce distressing nausea and depression.

The *Physostigma Venenosum*, or ordeal bean of Old Calabar, has of late been used medicinally. Its peculiar and powerful poisonous properties were long ago made known by Drs. Christison and Balfour, but we owe the fuller knowledge we now possess of its powers to the elaborate investigations of Dr. Fraser of Edinburgh, Dr. Robertson, and other observers. The active principles of the bean quickly enter the blood, and gradually produce general paralysis, which is due, according to Dr. Fraser, to changes effected in the spinal cord. In an animal poisoned by the bean the reflex functions of the cord are destroyed—"It acts on the spinal cord by destroying its power of conducting impressions." This results "in muscular paralysis, gradually extending to the respiratory apparatus, and producing death by asphyxia; and in a rapid paralysis of the heart, causing death by syncope. It also causes paralysis of muscular fibre, striped and unstriped." The knowledge obtained by these investigations led to the employment of the bean as a remedy in tetanus, and a considerable number of cases have been treated by it. Dr. Fraser has a high opinion of its value, and has reported twelve cases of tetanus treated by it. In one case, only one dose of the bean had been given before death; of the other eleven, nine recovered, and Dr. Fraser considers that in the two fatal cases the remedy had been given in insufficient doses, and that they could not, therefore, be fairly considered to tell against the remedial value of the drug.(b) Many other cases of its administration in this disease have been reported in the various Medical journals, English and foreign, and in not a few of these instances the patients have undoubtedly recovered; but the results, on the whole, have scarcely supported Dr. Fraser's estimate of the remedial value of the drug, while in some cases it has been suspected of doing harm rather than good, and of increasing the patient's danger by its paralysing action.(c) It may be observed, too, we think, that in most of the cases of recovery the disease lasted about a month, just as in cases successfully treated with atropia, hydrate of chloral, and other remedies. The physostigma has been employed in other maladies. Dr. Harley and Dr. J. W. Ogle have given it, with success, in chorea, but no inference as to its remedial powers can be safely drawn from recoveries from that Protean malady. Dr. Alois Monti has also reported three cases out of five of trismus neonatorum "cured" by this remedy.(d) It is indisputably a weapon of great power, and must be used with great care and watchfulness: while at the same time, in such a disease as tetanus, it must, as Dr. Fraser has insisted, be employed early. The Pharmacopœia contains two preparations, the powder and an extract; the first may be given by the mouth, in doses of from one to four grains for an adult; the extract, subcutaneously, in doses of $\frac{1}{10}$th to $\frac{1}{3}$rd grain and more, the dosage being regulated by the effects.

The physostigma has also the peculiar properties of causing very rapidly contraction of the iris, and altering the power of accommodation of the lens, and it has been largely used and proved of great value in ophthalmic practice. Its action on the iris was first pointed out by Dr. Fraser,(e) and first made use of by Dr. Argyll Robertson.(f) A very interesting communication on the subject, by Mr. J. Soelberg Wells, containing a description by Mr. Bowman of the effects of a solution of the bean on his own eye, was published in our pages in 1863.(g) It may be applied by touching the inside of the eyelid with a solution, one minim of which equals four grains of the bean, or by placing within a minute portion of paper which has been saturated with a strong solution.

Carbolic acid has long been known as a disinfectant, but Dr. Crace Calvert(h) and M. Lemaire(i) were the first to describe and suggest its properties and medicinal uses, and lately it has been quite the fashion, especially in the treatment of wounds, abscesses, etc. Mr. Lister,(k) being *facile princeps* among its apostles. The description of external applications does not come within the scope of these papers, and we must content ourselves with remarking that few other Surgeons have succeeded in working such marvels by the "antiseptic treatment" with carbolic acid as Mr. Lister has. In London, certainly, though largely tried, the results have fallen far short of the expectations excited by Mr. Lister's papers; and the late Sir J. Y. Simpson criticised his writings in a decidedly antagonistic spirit. His opinion may be fairly summarised as being, "What is true in the practice is not new, and what is new is not true."(l) But the acid has also been strongly recommended as a potent and valuable internal medicine, and has been given by inhalation in phthisis and bronchitis with fœtor, and by the mouth in scarlatina, diphtheria, and other diseases of the zymotic class, in obstinate vomiting, etc. And Dr. E. A. Sansom has introduced some double salts of carbolic acid as "agents in the treatment of disease," and strongly recommends the sulpho-carbolate of sodium as "a practical and efficient vehicle whereby carbolic acid can be conveyed to the tissues of a living animal." He considers "that an *à priori* case has been made out for the treatment of zymotic diseases—*i.e.*, those diseases whose manifestations are considered to be due to the operation of organised germs—by the sulpho-carbolate of sodium;" and he has employed it as an internal remedy in a large number of such diseases (*Medico-Chirurgical Transactions*, vol. lii. p. 139). Both Mr. Lister and Dr. Sansom ground the value of carbolic acid on what is known as the germ theory; but of course the practice may be most excellent and valuable, though the theory may have to be abandoned. At present it must be held that, though carbolic acid well deserves its great repute as a disinfectant and antiseptic, its real uses and value in Surgery and Medicine are still *sub judice*. In Medicine it may turn out that carbolic acid is not more useful than its relatives, creosote and tar, which have been successfully employed in several of the affections for which it is now recommended; and in Surgery, time may show that it is not so "very superior to any other antiseptic with which we are acquainted," as Mr. Lister and some of his disciples think.

(b) "On the Employment of Physostigma in the Treatment of Tetanus and Chorea." Dr. T. R. Fraser. *Practitioner*, vol. i., p. 76. 1868.

(c) Mr. Holthouse's case, Clinical Society's *Transactions*, vol. II.; and *Medical Times and Gazette*, 1869.

(d) *Jahrb. für Kinderheilk*, 1869.

(e) "On the Characters, Actions, and Therapeutic Uses of the Ordeal Bean of Calabar." Graduation Thesis. August, 1862. *Edinburgh Medical and Surgical Journal*, 1863.

(f) *Edinburgh Medical and Surgical Journal*, 1863.

(g) "On the Effects of the Solution of the Calabar Bean on the Pupil, &c." *Medical Times and Gazette*, vol. i., p. 500. 1863.

(h) *Lancet*, vol. ii., p. 362, 1863.

(i) "De l'Acide Phénique." Paris. 1863. Second Edition. 1865.

(k) *Vide Lancet*, March and September, 1867. *British Medical Journal*, September, 1867.

(l) "Carbolic Acid and its Compounds in Surgery." *Lancet*, vol. ii p. 517. 1867.

THE WEEK.

TOPICS OF THE DAY.

THE Committee of the Royal College of Physicians met on Monday evening last, for the purpose of discussing the steps to be taken for re-opening negotiations with the other examining bodies in England for the construction of a conjoint Board, on the basis of the scheme originally proposed by the Royal Colleges of Surgeons and Physicians. The Committee came to a resolution to invite the Royal College of Surgeons, in the first instance, to discuss the matter with them. It is perfectly

clear to unprejudiced persons who are watching the progress of these negotiations, that no final settlement of the question can be hoped without the hearty co-operation of the various bodies who are now legally engaged in examining and licensing for Medical and Surgical practice. Any partial union, which should leave other bodies free to continue their examinations and grant their licences, would most certainly merely foster a spirit of emulation and rivalry, and entirely fail of the desired object. We augur from the vote of the Fellows of the Royal College of Physicians, at their recent Comitia, that there is no wish on their parts to exalt the functions of their College by unduly depressing and ignoring the services rendered to the cause of Medical education by other Medical authorities. If the Committee of the College be actuated by the spirit of the Fellows on the occasion of their recent vote, we are certain that there will be no insurmountable obstacle to the establishment, at no distant date, of a thoroughly satisfactory Examinational Board.

Mr. Cane's report to the President of the Poor-law Board, on the present prevalence of relapsing fever in the north, has attracted the attention of the public to an epidemic which, during its entire course, has been carefully watched by the Profession. Our readers have been informed of the commencement and rapid progress of the disease, and of the means of meeting and opposing it which have been employed by the authorities of Liverpool. The report of Mr. R. B. Cane, therefore, does not contain much that is new to us. His tables, however, show at a glance the steady and rapid increase which the fever made during the months of June, July, August, September, and October, in the last week of which month the number of cases of fever relieved in the Hospitals of Liverpool had reached 1·375, the corresponding number in the same week of 1869 having been 94. The increase began in the week of the present year ending June 11, when the number of cases in Hospitals was 138, the number of the same week in 1869 having been 95. The number of cases of fever relieved out of the Hospitals in Liverpool shows a similar increase up to October 22, when it was 314, whilst in the week ending June 11 it was but 11. In the last week of October the number of outdoor cases in Liverpool fell to 287. The fever is not confined to Liverpool, but has spread largely in the adjacent districts of West Derby and Toxteth Park. It has also prevailed in Manchester, Salford, and Chorlton-upon-Medlock. The report of Mr. Cane is largely occupied by a detail of the means taken by the Boards of Guardians to provide Hospital accommodation for the fever-stricken population. On the whole he is able to report favourably of the efforts that have been made and of the results that have attended those efforts. The mortality from relapsing fever has not been more than 2 per cent. Mr. Cane reports that, speaking generally, "every requisite has been provided, and that almost all reasonable and substantial comforts have been fully and freely bestowed." He speaks in glowing terms of the manner in which the Manchester, Salford, and Chorlton resident Medical officers have discharged their duties in the parochial infirmaries, and shows a due appreciation of the assistance which he received from Dr. Gee, at Liverpool, in providing accommodation for the fever cases. The spread of this fever in our great towns derives its chief importance from the facts that it has generally been the precursor of typhus; that, like typhus, its presence and spread betoken an under-fed population; that we are threatened with a severe winter; that the charitable resources of the country have been heavily taxed for foreign sick and wounded; that our own pauperism is on the increase; and that no one can say, in the present state of the Continent, whether the commerce of this country may not soon receive a severe check. Relapsing fever, pathologically, is of very great interest, but it affects the death-rate of a population far less than scarlatina or typhoid. Its importance to the nation is that its spread is an index of an enfeebled population.

We hear that the Medical ladies at Edinburgh have found three ardent supporters amongst the numerous staff of the Royal Infirmary—viz., Professor Bennett, Dr. W. G. Balfour (one of the Physicians), and Dr. P. H. Watson (one of the Surgeons)—and that the question of mixed classes has in consequence again been before the managers. Elsewhere will be found the opinions of 504 registered Edinburgh students of Medicine. Their memorial ought to be conclusive. At a conjoint meeting of the managers and of the Hospital staff, held on Monday last, Professor Lister stated he had just been removing the testicle from a patient, in which he had necessarily to expose the penis, and operating on the anus of another, and that he felt it would be impossible in decency to do these things in the presence of young ladies and gentlemen. One of his dissenting colleagues expressed his surprise at this statement, because he was satisfied such procedures could not possibly excite the sexual instinct; and a second followed up the argument by quoting an instance within his own experience of a daughter who passed the catheter for her father without having any sexual feelings excited whatever! Professor Lister protested that it was a feeling of disgust which decent men felt; but his dissenting colleagues could not understand it at all. Such are the arguments of sexualism!

A sad fate, we hear, has befallen Dr. Matthews Duncan. At the opening of his course of midwifery he had a crowded and enthusiastic audience. At his next lecture he had a mixed class, the ladies sitting in front. Thereupon his class collapsed into about nine males. A popular lecturer on Surgery in the extra-academical school has experienced a similar, yet not quite so ignominious a fate.

Since writing the above, we have received information that, at a meeting yesterday (Wednesday), the managers of the Edinburgh Royal Infirmary decided against the admission of female students to the practice of the Infirmary.

An important meeting of the Poor-law Medical Officers' Association will be held at the Freemasons' Tavern, on Tuesday, November 29. One of the subjects which will be brought before the meeting is the scheme for Poor-law Medical relief which is to be embodied in Dr. Brady's forthcoming Bill. We hope that there will be a large attendance.

The baby-farming case at Lambeth is becoming a serious one against the prisoners, Mary Hall and her husband. A girl, who formerly lived in their service, deposed to having seen Hall bury the body of an infant, which she had reason to believe had been born a few hours previously, and which she said she had heard cry, in a pit in the garden at the back of their house, and afterwards cover the body with quicklime. The pit, filled with ashes, etc., has been found by the police, but we hear of no human remains, although, as the Halls had notice of the prosecution, all traces of such a crime may have been removed. There are many suspicious circumstances surrounding the case, on which, at present, it would be premature to comment. We must wait for the trial to see them in their true light.

A deputation on the subject of baby-farming had an interview last week with Mr. Bruce at the Home-office. From the result of that interview it appears that the Government contemplate introducing a Bill on the subject, or, failing this, that the Government will give fair consideration to a Bill which has been draughted by an association represented by the deputation. Mr. Curgenven presented the Home Secretary with a copy of this Bill, the objects of which are to make the registration of births compulsory, to require the registration of all places where nurse-children are taken for hire, the registration and licensing of all persons who act as midwives, and to enact that an inquest be held upon every child who came by its death while in the hands of a hired nurse.

The charge of recklessly and unnecessarily revaccinating various children, preferred by Mr. Watkins, one of the

St. Pancras guardians, against Dr. Hill, the Medical officer of the St. Pancras Workhouse, has been investigated by the Board of Guardians, with the result of a full acquittal of Dr. Hill. The allegation of the complaining guardian was supported by Dr. Pearse and others who take a prominent part in opposition to vaccination. Mr. Watkins professes to think the inquiry instituted by the guardians partial, and appeals to the Poor-law Board to institute a formal one. After the verdict of the guardians, and after the receipt of the report in which Dr. Hill satisfactorily meets the charges brought against him, we shall be very much surprised if the Poor-law Board thinks it necessary to take further action in the matter.

NATIONAL SOCIETY'S AMBULANCE.

From a communication received from a correspondent at Versailles, we have reason to believe that the National Society's Ambulance is likely to be broken up. It is much to be regretted that such should be the case; but from the statements made by our correspondent, not only as to want of accord between the Prussian Medical authorities and the British military Surgeons in charge of the ambulance, but as to the assumption of authority by the former in matters of treatment and details of Hospital management, such a result appears to us to have been unavoidable, and, in fact, the only course consistent with the Professional and military position of Medical Officers of the British Army. We only received our correspondent's communication at the moment of going to press, and have no space in our present number to do more than notice the intelligence, and to mention that a portion of the Ambulance had proceeded on detached duty to Orleans.

SUPERANNUATION ALLOWANCES TO POOR-LAW MEDICAL OFFICERS.

Boards of Guardians have already in several instances exercised the power conferred upon them by the statute 33 and 34 Vic., cap. 94, and the amending Acts, and have granted superannuation allowances to their Medical officers on ceasing to hold office. We subjoin the particulars of the cases in which allowances have, with the consent of the Poor-law Board, been awarded. The directors and guardians of the poor of the parish of Brighton have granted to Mr. Daniel Richardson, who held the office of Medical officer for the Western District for a period of twenty-one years, an allowance of £52 per annum. His salary on resigning was £125 per annum. Mr. John S. Keddell served as Medical officer for the Minster District of the Sheppey Union for twenty-five years, with a salary of £60 per annum, and, on resigning, he has been awarded a superannuation allowance of £40 per annum. In the Cheltenham Union the guardians have granted to Mr. W. Gregory, whose service as Medical officer for the Fourth District extended over the long period of thirty-four years, an annual allowance of £41. His salary was £45 per annum, but in computing the allowance the Guardians have taken into consideration the extra Medical and Surgical fees, estimated at £17 per annum.

A MEDICAL MAYOR.

Dr. W. F. Rooke has been unanimously elected Mayor for the ensuing year for the borough of Scarborough. To judge from the lengthened report of the proceedings of the Town Council, and of the banquet given by Dr. Rooke, in the columns of the *Scarborough Express*, he is, and worthily too, one of the most popular men in the borough. His nomination and seconding by two of the most distinguished members of the Council were in the highest degree complimentary, and there was no dissentient vote. The dinner at the Royal Hotel was of a sumptuous character, and attended by most of the gentry of the town, and by Sir H. Johnston, one of the borough members.

PARIS UNDER SIEGE.

We have received late news of the state of things inside Paris through the medium of a lady who acted as nurse to the sick and wounded, but who was compelled to leave the city at the time of the last exodus of the English residents. She had acted as nurse in the American ambulance, consisting of four tents, accommodating from fifty to sixty patients—the tents constructed of double American *duck*, and floored with wood; kept at a temperature of 14° R. by means of an American hot-air stove placed in a hole in the ground just outside the tent, by which a constant supply of warm air is introduced. These tents were quite dry, comfortable, and healthy; no case of Hospital fever or gangrene had occurred; and General Ducrot had begged that if his men were wounded they might be admitted there. Two fatal cases of tetanus had occurred. The Mobiles were described as *bons garçons*, to be relied on for fighting, yet anxious for peace. Small-pox was raging; 316 deaths from it had occurred in the week preceding our informant's departure. This was greatly fostered by the crowds of Mobiles—some unvaccinated, some coming from infected lodgings, all at the age most susceptible, too, of small-pox after vaccination—quartered upon the inhabitants. As to treatment of wounds, Dr. Swinburne, chief Medical officer of the American ambulance, used cold water at first; poultices next, till suppuration was freely established; he rejected splints in the treatment of leg fractures, and used constant extension by pullies. Strange to say, sponges were used to wounds, and one sponge might be seen going the round of each dresser's *clientèle*; carbolic acid was used freely. Loud praise was expressed of the splendid benevolence of Mr. Wallace, heir to the late Lord Hertford—of his contributions to the 560 poor destitute English, dependent on the British Charitable Fund, and of his delicate considerateness to persons whose misfortunes have exposed them to unexpected want. Dr. J. R. Cormack was enjoying good health, and hard at work at his ambulance, some account of which will be found in another column.

THE ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

At the Royal Westminster Ophthalmic Hospital a dispute is going on between the Medical officers and the committee, as to the construction to be put upon a very unsatisfactory rule, which professes to define the eligibility of candidates for vacant appointments. It appears, in searching through the early history of the Hospital, that for many years it was to all intents and purposes a Hospital for the treatment of general Surgical diseases; and we read in the *Morning Post* of November 14, 1850, that Mr. Charles G. Guthrie successfully performed amputation of the hip-joint; and that all the eminent Surgeons of the day were present, including the President of the College of Surgeons. On other occasions we find one or other of the Surgeons removing the upper jaw of a patient, cutting for stone, stricture, etc., in others; "and the fact is," adds the *Post*, "and it cannot be too extensively known, that the Royal Westminster Ophthalmic Hospital has accommodation for a large number of general patients, and the only reason the wards are not fully occupied is the very limited funds of which the institution is possessed." At the present time the institution does not, and has not for many years, received general Surgical diseases; its wards are amply occupied by special eye cases. It is quite certain, however, that for many years this Hospital came within the definition of "*a Hospital for the treatment of diseases generally;*" but since the death of Mr. Guthrie, sen., the treatment of other Surgical diseases than those connected with the eye has been entirely abandoned. Nevertheless, the Committee of Management seem to think it of more importance that a man should show competency in *general* rather than *special* Surgery; consequently, they require candidates to bring evidence of some connexion with a Hospital for treatment of diseases generally. Rules like these, made for a former period,

should not be used for the oppression of one man, or the advancement of another at his expense; and it is quite plain that they should be altered. At the same time, it is right to say that the period of a contested election is not the best for altering rules, as it looks like favouring one candidate rather than another. Nevertheless, it is better that this should be done than to inflict a grave injustice on a meritorious officer. Meanwhile, nothing has been settled beyond the declaration of a vacancy.

SCARLET FEVER IN LEICESTER.

In consequence of the great prevalence of scarlet fever in Leicester, Dr. John Barclay has proposed to the committee of the Hospital that cases of this disease and of small-pox should be isolated, and not removed into the Hospital in the ordinary way. He proposes to erect a cottage Hospital, to supplement their own, consisting of six or eight rooms on the ground-floor, to contain not more than two beds each, non-communicating, provided with every means of isolation and disinfection, with every most recent improvement—in short, one of the cottage Hospitals such as are now being erected in so many places, and which are found so conducive to the rapid recovery of the patients who make use of them. These cottages he proposes to erect on a distant portion of the grounds (five acres) of the Hospital, the furthest removed from any dwellings. That the patients should be Medically attended, fed, and nursed by the Infirmary under such regulations as may prevent (humanly speaking) the possibility of the communication of contagion, he proposes that to these cottage Hospital rooms be admitted selected cases of small-pox, scarlet fever, measles, erysipelas, etc.—cases now inadmissible to either Infirmary or fever-house. Selected, as to small-pox, would probably mean every case that occurred that could be coaxed or forced to come, gentle or simple. To admit the whole of the cases of scarlet fever at the present time would be simply an impossibility, even if desirable. A selected case of scarlatina would be such as the first case occurring in a house with children; a young person living in shop establishments with other young people: the head of a family; a very bad case; a servant in a house with children; a case at an hotel. The same restrictions would apply to measles, etc. These most reasonable and excellent propositions have not been accepted by the Infirmary Committee. They have raised various objections to them, such as that it is not the duty of the Infirmary to provide refuge for such diseases—not that it will involve expense (for the Board of Health is willing to pay for it), but that accommodation is already provided for such cases in the "contagion wards" of the workhouse, which is simply untrue. Other objections are raised, such as the concentrating the poison and endangering the health of the neighbourhood, etc. To these objections, many of them wholly untenable, Dr. Barclay has given replies in a very able letter in the *Leicester Chronicle*, of the 12th. His cogent reasoning and sensible observations will, we hope, so affect the minds of the committee of the Hospital and of his fellow-townsmen, as to urge them to the formation of the cottage Hospital, by means of which, properly managed, we feel convinced a great amount of disease and suffering will be prevented in the town. Dr. Barclay is entitled to public commendation for his spirited and able conduct in the matter.

FROM ABROAD.—THE INTENDANCE MILITAIRE AT LYONS.

M. Marduel, writing in the *Lyon Médical* of November 6, complains bitterly that the French *intendance* still exerts its mischievous influence:—

"The *intendance militaire* still persists, as regards the sick and wounded, in the old errors of past times. In vain have numerous voices been raised in the press and military Medical service against its procedures. A French 'administration' does not easily return from its errors, and is not disposed to acknowledge and repair its faults. Two months since I pointed out the numerical insufficiency of the Medical *personnel* of the French army, and, I might have added, also an insufficiency of material and of means of succour; and at the present time the same complaints have to be repeated. At the beginning of August, when a request for a subsidy was presented to the Senate by the Société Internationale de Sécours aux Blessés, the Minister of War replied that this was perfectly uncalled for, as the military administration was so organised as to be able to meet every contingency, and that the Société really could render no service whatever. Facts soon gave to these words a startling denial. What would have become of the numerous wounded at Beaumont and Sedan without the volunteer ambulances? and, nearer to ourselves, how would the wounded have fared at Voray, Cussey, and Chatillon without the Lyons ambulance? Another point bears upon hygiene. The Lyonnese branch of the Société has received numerous offers of beds and localities in our city and its environs for the establishment of stationary ambulances. While some of these ambulances are considerable, and accommodate from 100 to 150 patients, a large number consist only of from five to twenty beds; and at first sight these latter, in a hygienic point of view, ought to be preferred, as providing against the danger of overcrowding, and placing the sick and wounded in the best conditions for prompt recovery. Nothing of the kind. The *intendance*, while accepting with open arms the large ambulances and filling their beds immediately, will have nothing to do with any that cannot muster twenty beds, and will, indeed, scarcely pay any attention, in spite of the reiterated demands of the ambulance committee, to any ambulance having less than 100 beds. There is no use speaking of the danger from agglomerating numerous patients, the effects of overcrowding, and advantages which accrue from a dissemination of the patients; all this is not listened to, the *intendance* only seeing one thing—that such dissemination causes great difficulties and trouble in respect to surveillance and administrative details, which, on the other hand, are facilitated by agglomeration. Agglomeration is therefore to be adopted; and, as to the other point of view, the second and so important a factor of the problem, which consists in knowing and choosing what is known to be best for the recovery of the wounded, the re-establishment of the sick, and the diminution of the duration and gravity of the Medical and Surgical affections, the *intendance* takes no account of it. We may be certain that it will only accept small and medium ambulances when it is in absolute want of them, and when it will be utterly impossible for it to do otherwise."

SURGICAL NOTES OF THE GALLO-GERMAN WAR

By A STUDENT.

As some compensation for the present bloodshed, the opportunity ought to be seized for researches tending to promote the science of Surgery. How far researches are compatible with the appalling task of quickly clearing the wounded off large battle-fields, and sending them immense distances, can easily be imagined. The Germans say, "We get rid of our slightly wounded as quickly as possible by train or carts, retaining only the very bad or hopeless cases in the immediate vicinity of the battle-field." I ask, What are considered bad cases? A man, wounded at Gravelotte, died at Frankfort six days afterwards from a shot through the body. The bullet had pierced the left lung two inches below the clavicle, and had passed out between the fourth and fifth ribs on the left side. Yet this man was considered slightly enough wounded to undergo two days of cart and two days of railway horse-box travelling before he was allowed to die in peace. Were this a solitary instance one would not, perhaps, mention it; but, alas! the numbers wounded in such a battle as that by Gravelotte furnish many such fearful cases.

Unfortunately, it takes longer to cure a man than to wound him, and the misery a soldier undergoes from the time he is wounded to the time he is laid on anything approaching a decent couch can scarcely be imagined. I have seen poor fellows, after lying over forty hours on the battle-field, brought in to the first stage of comfort, which generally consists of straw strewed on the floor of some church, barn, or house. The second stage of comfort, if I may so call it, is a sack

filled with straw and something called a pillow. These empty sacks are generally forthcoming about the fifth day after a battle. The next stage is when the man is actually placed on a mattress, with a real pillow; but these luxuries come slowly, and can only be enjoyed by those poor fellows who, to use an expressive term, "die hard," or else get well. The last stage is a bedstead.

I must say the wounded are not treated with the consideration they are entitled to. Nearly forty men who had been more or less severely wounded on August 31 and September 1 by Metz were ordered to leave a village in the neighbourhood of the battle-field at a certain hour on a certain day. It was about ten days after the battle, and some had scarcely recovered from wound fever. The hour and day arrived, and with them the means of transport, in the shape of open carts, which drew up before the various houses in the village at 7 a.m. Without waiting to ask if the wounded were ready, straw was pitched into the carts. The rain was coming down in torrents, and the early hour made the wet straw still less inviting. It was fully an hour before the wounded, who had to be newly dressed, were ready. The order was given to mount. Of the wounded, some hopped through the puddles by themselves, or got a less severely wounded comrade to give them a back; many hurt themselves in mounting. At last they were all seated. One blanket and two cigars were then given to each, and they started for a trip of twenty-five miles, the rain coming down in sheets. I have since heard that six had to be left at different places on the road to Frankfort as either dead or dying.

In one letter it is scarcely possible to give even a condensed account of the sort of wounds which have been received on these battle-fields; perhaps the best plan is to divide them into shell wounds, chassepôt bullet wounds, needle-gun bullet wounds, mitrailleuse bolt wounds, and miscellaneous wounds. Among the last may be included sabre and bayonet thrusts, which were very rare. My observations extend from Frankfort-on-the-Maine to Versailles, with the exclusion of the Hospital near Sedan; and at all the Hospitals at which I have worked or visited, I can only remember seeing three sabre cuts, and seven thrusts, some of which were bayonet and some lance wounds. Woerth is, as far as I know, nearly the only encounter in which the opposing parties came to close quarters, and crossed bayonets. As to shell wounds, there is nothing too awful, no wound too jagged, deep, or dangerous for the bursting shell to make; and, alas! they are the commonest wounds, with one exception, that are to be found.

After the battle of October 21, near Paris, I proceeded to the battle-field, to tender my services to the wounded; there I found that the number of shell wounds was enormous; the French guns from Fort Valérien had committed fearful devastation in the German ranks. Men had been mowed down as if by a scythe; in many instances they were lying stretched out in a fan shape, with their feet towards a common centre; the mutilation their bodies had undergone beggars description. The night was bitterly cold, and many of the poor fellows lay on the wet ground the whole night through, thus quenching the last spark of life left in them.

The wounds which a chassepôt bullet makes are cleaner holes than those made by the German bullet; but with both balls I have noticed that the hole for the exit is generally the larger, but not always. Both bullets seem to spare bones, except at close quarters, and there they both pulverise and splinter them; the German bullet (probably from its larger diameter) makes the most serious wound. As an instance of how bullets traverse the soft parts of the body, I may mention the case of a man who was under my care. He was wounded on August 31, by Metz, in the great sortie. At the time he received the chassepôt bullet he was in the act of firing. The man who fired at him had been secreted behind a cut-down tree, almost at right angles to him, 130 or 140 metres off. The ball, which entered his arm just above the elbow-joint, seemed to take a nearly direct course to the bone; there it turned, and traversed the whole upper arm, through the brachial plexus, and lodged underneath the pectoral muscles, where the man discovered it. On the fourth day of admission I made a vertical incision, and found the bullet without any difficulty. The man died, however, after two days, from tetanus.

Concerning the wounds from a mitrailleuse bolt, except you see cases dead on the field of battle you do not see many; for, as the mitrailleuse does not scatter, one finds men riddled with holes; to find eight such bolt-holes, or even more, is not uncommon.

With regard to Medical supplies for the sick and wounded, their distribution has been mismanaged. It is no doubt a very difficult thing to do properly, for a depôt full of stores at a certain spot can do little or nothing for a village twenty miles off the railway track, on account of the scarcity of horses and waggons.

Everyone who has been in the campaign round Metz knows the wretched town of Courcelles—a very hotbed for dysentery and typhus. In this town I have been assured that enough charpie was stored up to bridge the Moselle over, and yet, at places on the opposite side of Metz, I, for one, had to pick charpie with my own hand. Well-meaning societies send out in large batches different stores—so many blankets to one, bandages to a second, charpie to a third place, instead of distributing them equally, and with a certain amount of discretion.

The body of Johanniters have a capital way of dispatching stores after a newly-fought battle. They send what is called a useful box; the contents are as follows:—1 square tin, 2 irrigators and 4 trays, 12 sponges, 1-lb. bottle of oil, charpie, 50 linen bandages, 20 flannel bandages, 20 gauze bandages (prepared with plaster of Paris powder), 1 box of plaster of Paris powder, 6 arm-slings, cotton wool, 5 yards of sticking-plaister. It may easily be supposed a Surgeon appreciates getting such a box, and blesses the Johanniters accordingly. There is unfortunately a great jealousy between this useful body of men and the Surgeons. Why this should be I cannot give any adequate reason; but that it is universally so I have had many opportunities of judging.

Both by Metz and Paris primary amputations have been the exception, the rule being to wait for secondary operations. No doubt many valuable lives are thus lost: but the hurry of clearing off slightly wounded as fast as possible — by hundreds sometimes—makes it next door to impossible to devote much time to individuals who require operations. As a rule, men wounded in the legs are considered as badly wounded, and are thus kept near battle-fields; so that you find men with broken arms sent off amongst the slightly wounded, while men with flesh wounds in the leg stop near the scene of action.

(*To be continued.*)

THE HOSPITALS AND HOSPICES OF PARIS.

(*Concluded from page 572.*)

Besides the Hospitals, the Assistance Publique has under its management seven Hospices, or establishments for the reception of persons who are able to contribute moderate sums, and who are admitted under different conditions at these various establishments, each person paying from 100 fr. to 400 fr. per annum. One of these—the Institution St. Perrine—is situated in a spacious park at Auteuil, and is regarded as the "Louvre of Hospices," being limited to the reception of the "aristocracy of poverty," consisting of decayed state functionaries, the widows of *employés*, and persons who have known better days. There are 268 beds, the payment being 850 fr.

There is also a large establishment for abandoned children, formerly the *Enfants Trouvés*, now the *Enfants Assistés*. M. Du Camp traces at some length the miserable history of foundling children from the period when they were exposed at Notre Dame and other churches in order to attract the attention of the charitable. In the sixteenth century the Parliament, and afterwards the Archbishop of Paris, came to their relief, but so ineffectually that numbers, for whom room could not be provided, were cast out to starve, or were sold at the fixed price of 20 sous each to whoever thought they could profit by the purchase. As is well known, it was to the exertions of St. Vincent de Paul that some amendment in their wretched condition was due. Passing over the history of the vicissitudes his establishment underwent, we must confine ourselves to an account of its present state. From the time that these infants are confided to this department of the Assistance Publique to their 21st year the directors are invested with all the power over them which the law confers on guardians. It is very actively exercised both in Paris and in the forty-six provincial arrondissements to which the children are sent. There they are under the supervision of two chief inspectors, twenty-five sub-inspectors, and 278 paid Medical officers. In 1869, the number of children under the care of the establishment was 25,486 (13,116 boys and 12,370 girls)—viz., 16,485 from 1 day to 12 years of age, and 9001 from 12 to 21 years. The Hospice is, in fact, only a depôt, the child being sent away as soon as it can travel in charge of a nurse in waiting for it, and it never returns to the establishment unless it is seriously ill and unable to obtain sufficient care, or becomes wilfully insubordinate. Since 1861, owing to the bad results which had been observed to arise

from detaining the infants at the Hospice, they have been always dispatched to the country as soon as possible, and with the happiest effect. In 1858, of 5322 infants admitted, 1211 died; and in 1859, of 5368, there died 1035. In 1868, of 5603, only 442 died; and in 1869, only 495 out of 6009. The mortality of the children in the country is, however, still considerable, for of 21,147 sent out, 1785 died. Of the 6009 infants received at the *Enfants Assistés* in 1869, only 4260 were abandoned infants, the 1749 others having been only temporarily placed there while their parents or guardians were in Hospitals or prisons. M. Du Camp regrets the abolition of the *tour* for the secret reception of infants at the Hospice as increasing the number of cases of infanticide and abortion. At present, the children must be openly brought, the particulars concerning their birth, the occupation of the mother, and cause of the abandonment, all being registered. During 1869 there were 80 infants brought in who had been found exposed in the streets. The Hospice is a vast edifice, and situated amidst gardens of almost a princely magnificence. "In spite of the verdure, and the vast space, and the dazzling cleanliness of all the apartments, I know of no Hospital in Paris," says M. Du Camp, "more painful to visit than this house, in which charity and science combine in the employment of every effort in rearing these sickly infants; Michelet calls it 'le funèbre Hospice,' and he is right." Notwithstanding all the care lavished on these little creatures, it is a melancholy sight to see such numbers so abandoned. They are first placed in a ward having eighty-five little iron bedsteads on castors, and buried in their beds they look sadly in need of rocking. They are entirely listless and old-looking, and the *personnel* is quite insufficient to furnish all the care required at this age, and maintain them in that permanent activity, during waking hours, which is essential to their health and development. The nurses are principally derived from eleven departments only, the Pas de Calais being one of the chief of these. They come to Paris and reside at the Hospice until children are assigned to them. The payments are regulated by a tariff, according to the age of the children they have charge of. During the first year the nurse receives 15 francs per month; during the second year, 12 francs; during the third and fourth, 8 francs; during the fifth and sixth, 7 francs; and from the seventh to the twelfth year, 6 francs. The child is, indeed, then often definitively taken charge of by its foster-mother if the inspector has not previously found some one to adopt it. The price paid to the nurse is gradually diminished as above, under the belief that the child becomes more and more useful in the household of its nurse; and after twelve, until which age a suit of clothes is also annually supplied, all payments cease, as it is then considered to earn sufficient to pay for its maintenance. It is also stipulated that the children shall attend the communal schools from the ages of 6 to 14, and in 1869 85,458 fr. were paid to the schools on their behalf. Still, 6672 children only out of 8145 exhibited the proofs of having been to school, so great are the prejudices of many of those who have the children in charge. In 1869, 5428 of the children had savings-bank books representing a sum of 394,076 fr. The Assistance has at its disposal thirteen foundations for conferring rewards on meritorious children, and in 1869 there were 178 so rewarded with 15,936 fr. As a general rule, the conduct of the children cannot be much complained of. In 1869, of 9000, aged from 13 to 20, only 32 were brought under the cognisance of the law, and that for very minor offences. A similar number had proved refractory to discipline. The attempt has been made at various periods of dealing with these last at the *colonies agricoles*, which were at first represented as working wonders. M. Du Camp, however, declares that everywhere in France they have proved utter failures. Even the model one at Mettray, its director declares, does not prove of any efficacy unless its teaching is prolonged into a military or naval career. Since 1861, the Assistance Publique has ceased to send boys to these *colonies*. The best course has been found to leave the children with the persons who have undertaken their charge, and who not infrequently become the means of setting them up in life. During 1869, of the 25,486 children, 585 were reclaimed by their parents or relatives, and were given up to them. Of these, 513 were aged from 1 day to 12 years, and 72 from 12 to 21 years. It is a popular error to suppose that rich and childless persons often apply at the Hospice in order to adopt children. Such adoptions are of very rare occurrence, and are always provided for by means of a regular contract with the Director of the Assistance Publique. The persons who do apply for children are usually small shopkeepers of the tenth order (whatever that may be), and diligent inquiries are always made in order to prevent the children falling into improper hands. The *Enfants Assistés* being thus a very large service, both in town and country, it costs the Assistance Publique 3,506,131 fr., and this sum would be much larger did not this department succeed, by the timely aid it affords indigent mothers, in inducing many of them to bring up their own children. It is, however, a difficult, and often a thankless, task.

The aged poor are provided for by the Assistance Publique in the two great Hospices—the Bicêtre for men and the Salpetrière for women. Among the derivations assigned in explanation of the word *bicêtre*, is Winchester—Jean de Pontoise, bishop of that see, having built a country mansion known as the Manor House of Gentilly. This, after undergoing various vicissitudes and re-erections, was devoted to the reception of poor and depraved persons of both sexes. Whether this derivation of the word be correct or not, the word itself has become to the Parisian a synonym of bad and ungovernable, and of a wretched, low fellow it is still said "*c'est un petit bicêtre.*" Under Louis XVI. it was Hospital, Hospice, and prison; and even as late as 1802, when the *Conseil Général des Hospices* was put into possession of a portion of the establishment, its interior was in a deplorable state—more wretched even than that of the Hospitals of the period. Aged and young, epileptics, insane, violent maniacs, and persons with every description of incurable malady, were shut up pell-mell together. To get the exclusive possession of a bed, a rent of 150 livres had to be paid, other persons taking their share in a *couchette* of eight, dividing themselves into two sets, one set sleeping from 8 to 1, and the other from 1 to 6. The sleeping rooms were, indeed, converted every night into a field of battle. At an early period of the empire this condition of things was reformed, but the establishment continued to be held in horror and reprobation from its being the dépôt for persons condemned to the galleys, awaiting "the chain" to conduct them to the hulks, as also the place where condemned culprits awaited their execution. The cells for these poor wretches still exist, and it is impossible to imagine anything more stupidly cruel than these damp, stone, subterraneous excavations, divided into compartments, and into which light is scarcely admitted; they are now used as cellars for the pharmacy. Since 1836 criminals have not been sent there, and Bicêtre has remained exclusively a Hospital establishment, being both a Hospice for aged and infirm persons and an asylum for the insane. It is an immense edifice, a truly royal château, resulting from the additions that have been made from time to time. Long deprived of water, except that of the Seine, a well, since become famous, was sunk in 1735, and from this 156,600 litres were brought to the reservoir in the twenty-four hours by relays of thirty-two men, selected from among the indigent, the epileptic, and the insane. In 1857, however, their labour was replaced by horses, and afterwards by steam, which pumps up 280,000 litres in ten hours. As still more water is wanted, 150,000 litres are also brought from the Seine, and 50,000 by the aqueduct of Arcueil. This enormous quantity is poured into a magnificent vaulted reservoir, capable of holding 1,139,005 litres, the daily consumption being 400,000 litres. Bicêtre is, in fact, a small town, covering more than twenty-one hectares, and when M. Du Camp visited it there were 2981 inhabitants. To gain admission, the applicant must have attained his 70th year or be the subject of some incurable disease. What with their age and their ailments, these old persons are usually full of envy, hatred, and mischief, quarreling much with each other. They are very difficult to manage, and, although there are not now revolts, as in the ancient times of Bicêtre, its inhabitants set up a systematic opposition to all the regulations. Everything is absurd in their eyes, even the Government that supplies them with the means of living. The administration makes every allowance for the miseries of their former careers, which have reduced them to the necessity of accepting aid for which they are so little thankful. Those of the inmates who have received most education, and have known better days, are those who complain the least. The majority consist of old artisans, old soldiers to whom no severe wounds gave right of admission to the Invalides, and servants who have not been able to save. With these, and holding themselves somewhat aloof, are certain *déclassés* who have known better days, as artists, authors, professors, inventors, merchants, and functionaries. These are truly to be pitied, although they complain the least. All, however, are more or less addicted to drinking, and rarely return sober when they are allowed to go out. Whether it be in order to acquire the means to satisfy this expensive habit, certain it is that they are very industrious and hard workers at a great variety of occupations, which the administration encourages as a means of assisting in their management. Formerly, much abuse

prevailed in respect to their food, which they were allowed to cook where they pleased, and even to sell for drink. Now there are two large refectories where all who are not disabled must resort to. The canteen used also to be a matter of private speculation, to the great encouragement of drunkenness, but now it is managed by the administration, and is only open at certain hours. In spite of the size of the Bicêtre, it is not large enough, some of the wards being too crowded. That of St. Augustin contains 140 beds, and is much sought for by the inmates, as its windows, allowing a fine view of Paris, enable its inhabitants to amuse themselves by watching any conflagrations that may break out. Insensible as these aged persons are to all around them, they are sufficiently thoughtful for themselves to have established a benefit society, which gives them allowances when sick, and saves them from the disgrace of a pauper's grave. A special portion of Bicêtre is reserved for what are called the *grands-infirmes*—for the paralytic, cancerous, and *gateux*—and here the nursing is carried on far more effectually than in the Hospitals. Among the appendages of the Hospice, such as the pharmacy, laundry, etc., the *lingerie* is on a vast scale, its assemblage of napkins and cotton nightcaps being something wonderful. Every kind of article is folded by dozens in a special manner, and collected together into a design, so that at a glance it can be ascertained how many shirts, sheets, etc., are in stock. It is at Bicêtre that the Hospital administration has its dairies, whence it supplies the milk for the various Hospitals and the children under its care. The administration has found that without keeping and milking its own cows it cannot secure pure milk for its large *clientèle*. At this time it has eighteen fine cows.

The Salpetrière.—The buildings of an old saltpetre manufactory were given up to the Hôpital-Général in 1656 as a place of reception for female mendicants. Like at Bicêtre, there was here an indiscriminate assemblage—diseased and healthy, and of every age—it being a prison as well as an Hospice. In 1802 it underwent a purification, and became exclusively an Hospice for indigent old women, although, in spite of protests, the epileptic and insane are still also sent there. At the first outbreak of cholera, in 1832, Salpetrière, in spite of its old wards, impregnated with the contagiums of two centuries, did not suffer severely, only 546 cases (with 328 deaths) occurring among 5000 inmates. But although between then and 1849 great ameliorations had been operated, the outbreak of that year dealt with it far more severely, for there were 1859 cases with 1402 deaths, the mortality in some wards rising to 84 per cent.

Salpetrière is even a larger institution than Bicêtre, standing on thirty-one hectares, and comprising forty-five buildings, having 4682 windows. Its population in December, 1869, was 4551, being, in fact, the largest Hospice in the world. Within its walls, besides the *cantine* under the direction of the administration, there is held a regular market for fruiterers, grocers, etc., one of the most frequented of its shops being that of the washerwoman, who is in constant demand for the various knick-knacks of female decoration. The coquetry of some of these aged women is remarkable, and close watching has to be kept up to prevent their parting with their food and money to heartless male followers. But this predilection for old beaux is not extended to their own sex, as the inmates are in constant hot water with each other, eternally disputing and almost fighting. Those who are able do needlework for the administration or make charpie, and thus gain a few sous daily. Although the new wards are spacious and well lighted, the old ones that yet remain are small, low, ill-ventilated, and poisoned by adjacent privies. The inmates are, however, far from preferring the new and spacious ones, but get into any obscure corners they can in order to escape surveillance and lead less of a life in common. One ward which is in especial request is divided into little cells, inferior to those of many prisons, for which purpose, indeed, they once served. To obtain admission into these the applicants must furnish proof of prior irreproachable conduct. They are usually reserved for the aristocracy of Salpetrière—those whom calamities have reduced to this sad condition. Their inmates have supplied to them a bed, two chairs, a chest of drawers, and a cupboard; and they are allowed to arrange and ornament "their room" according as their means permit. As at Bicêtre, there is a separate division for the *grandes infirmes;* but the sleeping place of the *gateuses*, or dirty patients, is very crowded, containing sixty-three beds. There is a separate ward for cancerous patients, most of these being subjects of lupus, often in its most horrible forms. All the inmates who are not in the infirmaries, or detained in their wards by illness, are allowed to walk in the courts and spacious gardens, which in some places are well wooded; and in these they pass the greater part of the day gossiping and slandering each other. The kitchens of Salpetrière are quite a curiosity, and the food is served in the refectories. It is neither their dinner nor their supper that the inmates look forward to, but their *déjeûner*, which, however, only consists of a cup of hot milk; but for 10 centimes they can get, at the *cantine* in the market, some coffee and two lumps of sugar, and they thus have their cup of *café au lait*, which the Paris women so delight in—at Salpetrière it is such a necessity that it is not prohibited even when the inmates are ill and on low diet. A woman is occupied the whole day in going from ward to ward selling coffee. At the Salpetrière is a very large washing establishment, as, owing to the vast space disposable, a large portion of the washing of the Paris Hospitals is done here, more than 200 washerwomen being employed; and it is remarkable that, although all the linen of the small-pox patients during the present epidemic has passed through their hands, not one of these women has become the subject of the disease. Unfolding and shaking the linen is, however, in other ways injurious to health. This is seen among the women who examine that which has been washed, dried, and folded. They unfold each article and carefully examine it, in order to determine whether it should be sent into stock or to the mending women. All these women suffer in the larynx, having a dry and continuous cough, which greatly harasses them. A kind of impalpable down, which becomes detached from the coarser articles, penetrates and irritates the respiratory passages, and ends in producing, if not dangerous, very annoying affections. M. Du Camp suggests, as a preventive, the employment of the cotton-wool respirator, recommended by Prof. Tyndal. The linen-women have for assistants those of the inmates who are strong enough to manipulate these often heavy articles; and as the younger women are generally chosen, they are often selected from among the epileptics. It is of constant occurrence for them, while so employed, to be seized with fits, and they are quietly laid on a bundle of linen until the convulsion and its subsequent sleep have passed away. It is in a portion of the immense garden of the Salpetrière that the administration grows the flowers with which it embellishes the gardens of the Paris Hospitals. This, at first sight, may seem an excess of attention, but it is judicious as well as humane, for nothing gives the sick so much delight as the sight of verdure and plants in flower. In the same locality the heifers are kept from which the virus is derived for "animal vaccination."

At Bicêtre and Saltpetrière we can see the system of "*retraite*" in operation, which the Assistance Publique has established for its old *employés*. After thirty years' service and 60 years of age they receive, according to the importance of their posts, the men from 250 fr. to 400 fr., and the women from 200 fr. to 350 fr. This is too small a sum for even the most moderate wants, and therefore several old *employés* prefer "*le repos.*" Under this, after the requisite period of service, and according as to whether the *employé* belongs to the first, second, or third class, there is obtainable in one of these Hospices a room with a cabinet, a separate room, or a bed in the common *dortoir*. Food, clothing, and wood and candle, together with attendance when ill, are furnished, as also 72 fr., 50 fr., or 30 fr. per annum, according to the class, such sum being increased by 3 fr. for every year served beyond the regulation period of thirty years. At both Hospices a separate building is set aside for the persons *en repos*, who live together like the humble inhabitants of a village, those who know any occupation adding from its resources to their means. The ecclesiastical *personnel* at Salpetrière is very numerous, and the service very pompous; but M. Du Camp criticises the good taste of the preachers he has heard there, who dwell far too much on the vengeance of God and eternal torments, when it is considered that they are addressing aged women, many of whom are sufferers from incurable disease. He also blames the collecting alms at mass from these persons, themselves so destitute.

Queen's College Debating Society, Cork.—The first meeting of the session was held in the theatre of the Cork Institution, on the 11th inst. The opening address was given by the President, Dr. Shinkwin, who reviewed the proceedings of the previous session, and commented with varied erudition and remarkable eloquence on the leading topics debated by the Society. A vote of thanks was unanimously passed to him.

Swallowing a Screw.—A boy, two and a half years of age, swallowed a screw an inch and a half long. He was soon seized with insensibility, and shortly died. On a post-mortem examination the screw was "found in the throat."

REVIEWS.

St. Bartholomew's Hospital Reports. Vol. vi. London: Longmans. Pp. 180.

St. Thomas's Hospital Reports. New series. Vol. i. London: J. Churchill and Sons. Pp. 706.

The Manchester Medical and Surgical Reports. Vol. i. Manchester: J. Cornish. Pp. 301.

The Liverpool Medical and Surgical Reports. Vol. iv. London: J. Churchill and Sons. Pp. 200.

Four volumes of what are called Hospital Reports lie before us. The title, in more than one way, is a misnomer; and, notwithstanding that these volumes contain much good work, their appearance suggests unpleasant rather than pleasant thoughts. Our reasons we have before now hinted, and let us repeat that one of them is a kind of sublimed selfishness. We are at all times anxious—and our contemporaries are, at least, equally so—to secure for our readers an intellectual repast as sumptuous as circumstances will permit, and we are perfectly aware that these publications impoverish our columns. It is better to be fair and honest in such matters by asserting our position than to allow powerful and convincing arguments to be thrust aside by an implication that selfish motives, and these alone, are at the root of our objections to a multiplication of these publications.

The objects aimed at by a Medical man in his writings may be twofold—the spread of truth, or what he holds for truth, and a just desire to advance himself in the estimation of his fellows and, through them, of the public. From both of these points of view, what are called "Hospital Reports" are a mistake; but we are ready to admit that, from another point of view, they are not devoid of some counterbalancing good. They encourage *esprit de corps*, they serve to identify a man with his Hospital, and they also, in one way, serve as advertisements of the excellence of the various schools. But, with one honourable exception—the well-known *Guy's Hospital Reports*—we must judicially pronounce all others at least partial failures. In the first place, the others are, without exception, only partially the work of the Hospital staff, whose name the volume bears; that may be but a small blemish, yet it constitutes one reason why the titles are misnomers. In the second, they tend to deterioration year by year; financially, their success diminishes, and ultimately they cease. Take, as an example—by no means an invidious one—the name which stands at the head of our article—the *St. Bartholomew's Hospital Reports;* with all due deference we cannot say that the present volume is equal to some, at least, of those which have gone before, and the list of subscribers covers but fifteen instead of seventeen pages, as in the third volume; nevertheless, we are not prepared to predict its final end. The *London Hospital Reports*—admirable though they were—never paid (we speak under correction), and no volume has appeared for a year or two; whether they will be resumed we know not.

It is easy enough the first year to prepare and publish to the world a fairly good volume; the second year it is more difficult; and the difficulty increases annually. Let us cite, as an example, one of the volumes now before us — the *Liverpool Medical and Surgical Reports.* Out of its 200 pages, 81 are occupied with periscopes of Medicine, Surgery, and Midwifery, and the *Transactions* of local societies—in other words, it ceases to be a volume of reports, and becomes a kind of journal, publishing, as do other journals, advertisements of all kinds, including vulcanised indiarubber and jewellers' goods. We do not say a word against this; we merely point out its inconsistency.

But of all the evils the system entails, none are more striking than that enforced by the words "New Series" imprinted on the *St. Thomas's Hospital Reports.* How many are there among us who were aware of the existence of an old series? and how many fewer are there who, knowing the valuable matter entombed in that series, know where to lay their hands on it. Of course, men in London, with two great and valuable libraries available of access, have not so much to complain of on this score as those at a distance. Nevertheless, those engaged in scientific or literary research know well the difficulty of reference to odd volumes. In a series of reports, continuity is all in all. If there is no good prospect of securing this, they had far better be never begun. The volume to which we have just referred ought to have been published last year, and only appears now towards the end of another.

Nor are the arguments against the system yet concluded. Increase of opportunities for coming before the public tends to washy language and repetition. If we consider the men of old, the great lights of our Profession, and consider that as far as we, their heirs and successors, are concerned, their reputation hangs on some slender volume, and compare their productions with those of a prolific modern author, we can see why the name of the one lives and that of the other is sure to die (compare, for instance, the work of Bishop Butler with the writings of a modern theologian); and this tendency to loose writing and repetition, fostered as it is by the multiplicity of organs, is in reality a severe tax on the diligent student of his Profession who seeks to keep himself ahead of his period. We could point to instances where one scanty fact, enveloped in various mists of words, has been thrust upon our Profession in half a dozen different places—the fact, after all, being worth nothing. It would be well, indeed, for us all if we thought more and spoke and wrote less; a concentration of force should be fostered by every means in our power.

Having said our say against the system, is would be ungracious not to acknowledge the excellence of some of the articles contained in these various volumes. Generally speaking, indeed, their contents are not to be cavilled at, and they are the result of much and various labour. There is on foot a scheme for securing greater unanimity in the action of our various societies. Could such a scheme be extended to private labour it would be well for us; but we fear "Hospital Reports" are not a step in the right direction.

A Sketch of a Philosophy. Part III. *The Chemistry of Natural Substances.* By John G. Macvicar, LL.D., D.D. 1870. Williams and Norgate.

We have here the concluding part of Dr. Macvicar's ingenious but very abstruse system of molecular physics. "Could we but see clearly in the mind's eye the actual forms and structures of the various atoms and molecules of which crystals, plants, animals and their organs consist, how precious the knowledge!" Starting with the expression of this wish, our author proceeds to show that the discovery of the forms of the least particles of bodies ought not to be regarded as hopeless. In order that we may not unintentionally misstate his views, we quote from his table of contents, which is virtually a good syllabus of his memoir, the following observations regarding *molecules*:—In treating of *Primal Elements* he states that "the synthesis of material units gives, as the first stable group or molecular element, four of them, a tetrahedron, or *tetrad* [of which he gives a diagram]; but tetrads, when presented to each other, must, under the law of symmetry, tend to class together, base to base, giving the *bitetrad*, or hylagen [also figured]. In our planet all atoms and molecules whatsoever are constructed of no other elemental forms but these two, the tetrad and the bitetrad!" *Ultimate Elements* are next considered, and we learn that the ultimate analysis of Nature usually gives, not the tetrad itself, but the *trigonal bipyramid*, "a form with two poles, which are similar to each other, and an equator evenly placed between them, and which, therefore, is capable of going free in the aëriform state, and is of exquisite stability; it represents hydrogen." Sometimes, however, this ultimate analysis gives "a group of five tetrads, united so that an edge of each is the common axis of all. This represents boron. It is a *pentagonal bipyramid*."

From the chapter on "The Normal Synthesis of Matter in the Celestial Space," we extract the following singular history of *the minim rain-drop*:—"The smallest natural particle of water is the differentiated dodecatom $AQ(AQ)^{12}AQ$, which is still capsular. It consists of 22,680 units of weight." Further on we learn, regarding *the sea*, that it "is not an incidental mechanical mixture depending on the soluble matters of its bed. It is a self-developing, self-restorative, liquid crystalline, and, in a sense, organic medium. Its constituents are descendants or kindred to one another." It may astonish many of our old-fashioned chemists to find that "*bromine* and *iodine* are baric and barytic chlorines, resulting from the demetallisation of rubidium and cæsium," and that "*nickel* is imperfectly reduced or hurriedly constructed iron, two atoms of hydrogen being retained in it, which have been given off from iron;" while "*copper* results from the dedoubling of an atom of suboxide or sesquioxide, or oxisulphide of iron, the medial atom of oxygen opening or unlocking into two metallic coronets or berylliums."

Professor C. Schmidt, of Dorpat, would hardly recognise his own views as they are represented in the chapter on "The Tissue Element." "The primæval combination of an atom

of hydrogen with one of aqueous vapour on each of its five points for union—that is, Haq^5 (which is genetic of ammonia), together with a single atom of molecular carbonic acid—that is, $\overset{III}{C}_1\overset{IO}{O}\overset{III}{C}_4$—supply precisely all the material wanted for the construction of an element of flesh, $C_8H_6NO_3$ (C. Schmidt); they give also, as a residue, a molecule of what may be called normal stimulant, or ozonohydric acid, $HO\overset{12}{(O)}OH$, which is also probably the molecular structure speedily attained by the oxygen gas of the air after it has been absorbed in respiration."

The last chapter of this very remarkable book begins by the attempt to prove that "the action of molecular nature is radiant, while logical thought is confined to a single line," and concludes with a general revision of the author's labours, which he sums up in his table of contents in the following terms:—

"Matter is merely a precipitate in the universal æther, necessitated by the condition of the existence of the finite in space—a beautiful cloud-work woven in the realm of light. Both above and below it is bounded by a world of spirits—those which were before it, and those of which it is the mother and nurse. All things owe their being to a Supreme Intelligence, an ever-blessed One. Existence has been awarded to the finite for the sake of multiplying enjoyment. 'The struggle for life' is a struggle for enjoyment. There is nothing of which it can be said that it is altogether and for ever dead. As all is the creation of an ever-living One, so all tends towards life."

We heartily congratulate Dr. Macvicar on the completion of his work. For the benefit of those of our readers who may not have seen the earlier portions of it, we may mention that "A Sketch of a Philosophy" is composed of three parts, of which the first treats of "Mind: its Powers and Capacities, and in Relation to Matter;" while the second discusses "Matter and Molecular Morphology; the Elemental Synthesis, illustrated by 75 Diagrams of Molecules." The third and concluding part is that which forms the subject of the present article.

Jahrbuch der Erfindungen. Herausgegeben von. Dr. H. Hirzel, Professor an der Universitat, u. H. Gretschel, Lehrer der Mathermatik, zu Leipzig. Fünfter Jahrgang. 1869. Leipzig: Quandt u. Handel. London: Williams and Norgate.

The Year-book of Inventions and Discoveries in Physics and Chemistry, Technology and Mechanics, Astronomy and Meteorology. Edited by Dr. Hirzel and H. Gretschel. 1869. Pp. 416.

This little book, although less comprehensive in its scope than several of the well-known French books of a similar nature, or than the American "Year-book of Scientific Discovery," is more complete in the manner in which it treats some of the subjects, and more especially inorganic chemistry. Astronomy occupies sixty pages, Physics and Meteorology eighty-seven pages, Electricity and Magnetism thirty-five pages, Mechanics and Mechanical Technology fifty-five pages, while Chemistry and Chemical Technology extend to a hundred and sixty pages. Amongst the subjects that are very fully discussed may be mentioned star showers and meteors, recent investigations regarding the velocity of sound, polarisation of light, newly invented thermometers, the electric light, dynamometers, machines for locomotion (Marsh's mountain railway, as improved by Fell, street locomotives of Larmangat and Thompson, velocipedes, etc.), sewing machines (their history being traced from the year 1755), knitting machines, recently invented pumps, Bunsen's system of filtration and washing precipitates, iron, sodium and potassium, the cyanogen compounds, and the hydrocarbons, under which title the different varieties of petroleum are very fully considered. The volume concludes with a short necrology.

NEW BOOKS, WITH SHORT CRITIQUES.

Introductory Address at the Queen's Hospital, Birmingham, Session 1870-71. By A. Fleming, M.D.

*** A very good address: one passage is worth quoting:—"I cannot resist the opportunity which is now afforded me of stating in the most emphatic terms my abhorrence of those teachers who, unmindful of their grave responsibility, instil doubt and suspicion as to the very foundations of our art into the too plastic mind of the young. I have had occasion over and over again to verify the unhappy results of this evil influence, in a stinted and blighted knowledge, and in the aimless and spiritless pursuit of a Profession in which the unhappy sceptic has no faith, and therefore should expect no success. Putting aside the terrible degradation of attempting to practise an art in the pretensions of which he has no belief, and in its claims no confidence, how could success be expected or hoped for? It is far better for such a one to fail miserably, as he deserves to do, than to carry about with him that subtle poison of unbelief and deception, which must inevitably infect those with whom he associates. "It is a strange phase of human nature that we are called upon to witness in this our age—that of assuming a contempt for what is high and noble, even if we feel it not. My young friends, rest assured that nothing is so barren of all possibility of good as this miserable weakness. One of the greatest and deepest thinkers of our time affirms, 'Let us know what to love, and we shall also know what to reject, what to affirm, and we shall know also what to deny; but it is dangerous to *begin* with denial, and fatal to end with it. Of unwise admiration much may be hoped, for much good is really in it; but unwise contempt is itself a negation—nothing comes of it, for it *is* nothing.'"

The Journal of Psychological Medicine. Edited by William A. Hammond, M.D., etc. Vol. iv., No. 4. October, 1870. New York: Appleton and Co. London: Trübner and Co.

*** We owe Dr. Hammond an apology for not having more frequently directed the attention of our readers to his excellent journal, which has now completed the fourth year of its existence. The present number, in all respects, maintains the high character of its predecessors. The first article, entitled "Notes on Ecstasy and other Dramatic Disorders of the Nervous System," and contributed by Dr. Meredith Clymer, is as replete with thrilling incidents as the most sensational novel of the present day. It is especially devoted to the consideration of the remarkable case of the "Ecstatic of Bois d'Haine," which has been recently described by Dr. Lefebvre, Professor of General Pathology in the Catholic University of Louvaine; but it incidentally notices various similar cases. The girl expresses great unwillingness to be questioned as to what occurs when in a state of ecstasy, but in answer to the urgent pressing of her Physician, she told him that she found herself plunged suddenly into a vast flood of bright light; soon, forms became distinct, and she would witness the several scenes of the Passion, as they successively passed before her. She described the cross, and the vestments, wounds, and crown of thorns of the Saviour, who, she says, never looks at or speaks to her. These ecstasies regularly occurred every Friday at about the same time, the first showing itself on July 17, 1868, and the series going on till the Physician's report closes, at the end of 1869. They were preceded by three weeks by stigmatic bleedings, and afterwards the two phenomena were coetaneous.

An article by Dr. Allen, on "Physical Degeneracy," although chiefly directed to his own countrymen, and still more to his countrywomen, is well deserving of study. The other original articles are on Medico-legal subjects; and one of them, by Dr. O'Dea, "On the Plea of Insanity in Criminal Cases," may be read with great advantage as a preliminary to appearing in the witness-box, when such a plea is to be urged.

The Illustrated Review. No. 1, vol. i.

*** A new weekly candidate for public favour. It is exceedingly well got-up, copiously illustrated, and contains several articles of great merit; one on "School Education," and another, "Tubbing *versus* Rubbing," are particularly good.

Health of Islington.—In the report on the sanitary condition of St. Mary, Islington, for October, 1870, Dr. Ballard says that "Neither the general public sickness nor the mortality can be regarded as having been excessive during the past month. The 308 deaths registered were less numerous than in October last year by 20, and only 13 more than in October, 1868. The 2945 cases of public sickness recorded were exceeded considerably in each of the preceding four Octobers. Of the contagious diseases, small-pox and scarlet fever have been most prevalent, the cases of small-pox newly met with having been 31 against 13 in the five weeks of September, and those of scarlet fever 72 against 83 in five weeks. The deaths from scarlet fever have amounted to 60. Sixty-eight cases of fever have been reported, mostly typhoid. I have heard of one or two cases of relapsing fever among the poor. Pulmonary affections have run up to a high number of cases unusually early this year; 701 cases of bronchitis and catarrh, 28 of pneumonia, and 17 of pleurisy, form a total very far larger than the highest total of cases which I have yet recorded in October—viz., 482 in 1868."

GENERAL CORRESPONDENCE.

ON MEDICAL CHARGES.

[To the Editor of the Medical Times and Gazette.]

SIR,—About a year ago I called the attention of your readers to a few remarks upon the present system of Medical charges in general country practice, and the ominous silence which has reigned in your columns since the few editorial remarks thereon, and two letters which subsequently appeared on the same subject, has been oppressive. Neither of the letters referred to were written by a member of the "unhappy Surgeon-apothecary" class, and the only conclusion one can come to is that that unhappy class is generally contented with its tradesman-like method of making the amount of medicine supplied the basis of Professional remuneration.

It is with a feeling of relief, then, that I find in your last week's impression another aspect of the subject from the pen of a "Bachelor in Arts."

My last was mainly occupied in showing up the evils of the existing plan, which may be shortly stated as the system of charging for mileage and medicine (the medicine includes the visit) so that when there is no mileage (as in the case of attendance in the doctor's own village) medicine alone is charged for, and of necessity medicine is always given, whether required or not. The evils of the system were enlarged upon, and its demoralising effects upon both Doctor and patient demonstrated.

I will only add, as an instance, that I have seen a child suffering from typhoid treated three times a day to a rhubarb powder, "one to be taken with each dose of the mixture," confessedly to make the attendant's charges adequately remunerative. The existing diarrhœa, of course, became uncontrollable by any amount of wine, and death ensued. Entirely agreeing as I do with your correspondent, that the future to be aimed at is prescribing practice alone (as is the actual fact abroad, despite all the asserted impracticability of the thing), the system at present most in favour in large towns, and its tendency, calls for criticism.

The tariffs adopted by two Medical societies lie before me, and in both the unsound principle of including the medicine in the charge per visit is decided upon; and against this I would enter a vigorous protest. For consider what it involves. Simply the perpetuation of the practice that the general Practitioner shall supply medicines as well as give advice.

By thus tacitly ignoring, as it were, the separate value and trouble of dispensing medicines supplied, the public will never be induced to sanction the introduction of pure prescribing practice as a general thing. They will say (and with a certain amount of justice), we cannot employ Mr. A., for he charges us so much per visit, and we have to pay for our medicines at the chemist's as well; but Mr. B. charges us so much per visit, and all medicines are included—the difference between the two fees will not assuredly pay the druggist's bill. In few words these are the facts of the case, as stated more fully by a "Bachelor of Arts."

Now, before we can hope for a better state of things—viz., the entire divorce of the Doctor from the druggist—I think we must uphold a directly opposite idea to that suggested and sanctioned in the tariffs referred to; we must recognise to the full the fact that, at present, we general Practitioners are Doctors and (our own) druggists too—we must in our ledgers make a separate charge for Professional attendance and advice, and a separate charge for medicines supplied. The relative amounts of these two items, however, will be the very reverse of that hitherto in vogue in country practice—in fact, as I have stated, the smaller sum usually charged for "Iter" can refer to mileage only, for the charges for medicines come to twice as much, and presumably include the visit proper.

My notion, then, and practice is that for visits paid within a mile of the Doctor's house there should be two items of charge—(1) for visit and advice; (2) for medicines supplied; when the patient's house is more than a mile distant, there will be (3) an item for mileage. In the ledger there are really two accounts—viz., the Doctor's and the druggist's (the Doctor being his own druggist)—and this can very well be explained to an inquisitive patient who sees his bill made out in such a form as this: *a*. Professional attendance and advice (including mileage). *b*. Necessary medicines. For the rest I need only add that I have tried this plan for two years, and have every reason to be satisfied with it. Its general adoption would, I believe, render the transfer of the supply of medicines altogether to another person (the dispensing chemist) an easier one, when the community at large becomes sufficiently enlightened to see the radical distinction between the two branches of the healing art, and to insist that it shall be illegal for Medical men to dispense their own medicines. It may not be generally known that when the Medical Act was under discussion last session a letter appeared in a leading journal, suggesting that in any legislation upon Medical subjects this point should be prominently brought forward, so that after all the era may not be so far distant when we shall all be obliged to practise Medicine and Surgery as "Bachelor of Arts" has striven to do. In a future letter I propose to give definite tariffs, both for attendance and medicines, and to propound a consistent scheme for charging the various classes of the community.

I am, &c. A CONSTANT READER AND SUBSCRIBER.

November 9.

[We think our correspondent underrates the degree in which general Practitioners make a fair charge for attendance. In old, torpid, agricultural districts and cathedral towns, there are people who still will have their "bill;" but in the best parts of large, growing cities, watering-places, and active communities, a more liberal system prevails.—ED.]

WATER-CLOSETS IN POOR DISTRICTS.

LETTER FROM DR. W. H. CORFIELD.

[To the Editor of the Medical Times and Gazette.]

SIR,—Would you permit me to point out that the statement in my "Digest of Facts Relating to the Treatment and Utilisation of Sewage," to which your reviewer especially objects, that the "trough" and "tumbler" water-closets are applicable to the poorer parts of large towns, is between inverted commas, and is a quotation from the summary of the report "On the Construction, &c., of Midden Closets, &c., by Dr. Buchanan and Mr. J. Netten Radcliffe," published in the appendix to Mr. Simon's twelfth report (page 140). The whole passage runs thus:—"As regards the parts of a town inhabited by the poorer classes, *a water-closet system may be managed so as to be entirely applicable to the circumstances of the most ignorant and most careless population.* Essential conditions of such applicability, however, are that the structural arrangements should be adapted to their purpose and be independent of the person using the closet, and that the management should be wholly undertaken and efficiently done by the servants of the sanitary authority. *Where these conditions are observed as thoroughly as they are observed in parts of Liverpool, we believe that water-closets are the best means of removing excremental matters from the poor neighbourhood of a town.*" [The italics are mine.]

What is done in Liverpool may be done elsewhere, and the above quotation shows that neither the sanitary authorities of that town, nor the Inspectors for her Majesty's Privy Council agree with your reviewer, when he says that "the amount of management required is such as no sanitary authority would undertake."

With regard to the questions between the "Precipitation Processes" and "Irrigation," I shall have more to say on another occasion. I am, &c.

W. H. CORFIELD, M.A., M.B. (Oxon), M.R.C.P.

11, New Cavendish-street, W.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 8, 1870.

DR. BURROWS, F.R.S., President, in the chair.

A PAPER by Dr. C. HILTON FAGGE and Mr. ARTHUR E. DURHAM, was read.

ON THE ELECTROLYTIC TREATMENT OF HYDATID TUMOURS OF THE LIVER.

This paper is based upon eight cases of hydatid disease of the liver successfully treated by electrolysis. The authors believe that this method of treatment has not hitherto been adopted in any other case of the same nature in the human subject. The operation was performed in the manner recommended by Dr. Althaus in his treatise "On the Electrolytic Treatment of Tumours." In each case two needles were passed into the tumour, and were connected with the negative pole of

a modified Daniell's battery of ten cells. The positive pole, terminating in a moistened sponge, was placed upon the surface of the abdomen. The current was allowed to pass for a period varying from ten to twenty minutes, in different cases. The needles were then withdrawn. A little clear fluid in some cases appeared at the seat of the punctures. No preliminary tapping nor exploratory puncture was made in any case. The diagnosis rested on the facts that the patient had a rounded elastic tumour projecting from the liver, and that this was cystic, as proved by the needles rubbing freely against one another in its interior, although introduced an inch or two apart. The operation was followed in most cases by rapid diminution of the tumour, which even shortly after the operation became soft and flaccid. At the same time, in some cases, fluctuation became perceptible in the lower part of the abdomen. The authors believe that some of the hydatid fluid probably escaped through the punctures made by the needles, having been possibly forced out by the accumulation of hydrogen gas in the interior of the cyst. The success of the operation would thus appear to depend, not on the direct action of the electric current, but on its effecting, as it were, a kind of subcutaneous tapping; and they suggest that simple acupuncture might possibly be followed by equally successful results. Slight febrile symptoms, and more or less pain, in most cases followed the operation; these symptoms, however, rarely lasted more than three or four days. In one instance they were entirely absent. In most cases the patients were able to get about in a few days, and some of them were discharged from the Hospital at the end of two or three weeks. Even at this early period the tumour had already, in some cases, very manifestly decreased in size; and, as a rule, this decrease, when once it had fairly commenced, steadily progressed. After the lapse of six months or a year, when each patient returned for examination, no trace of the disease remained; or, at most, there was only some ill-defined fulness of the epigastrium. In one case only the result still remained doubtful. In the remaining seven cases the favourable issue above described had already taken place. All the patients were in perfect health. In each of them the tumour had been large, and in at least one instance it had reached quite unusual dimensions. In three cases more than one cyst existed, and each cyst had then to be electrolysed separately. In the latter part of the paper the results of electrolysis are compared with those of simple tapping—the operation which has hitherto been most successful in the cure of hydatid disease of the liver. The authors claim for electrolysis that it rivals simple tapping in being unattended by immediate danger to the life of the patient, and that it is to be preferred, inasmuch as (according to their experience up to the present time) it involves no danger of suppuration within the cyst, and consequent risk and suffering—results which often follow simple tapping. The authors conclude their communication by referring to a case in which Dr. Playfair, in accordance with their suggestion, treated an hydatid tumour of the liver by simple acupuncture. The results of this case promised to be favourable; but as yet sufficient time had not elapsed to warrant any decided expression of opinion as to the value of this method of treatment.

Dr. Robert Lee had met a case four years ago. The patient, a lady from Calcutta, had an abdominal swelling which was said to be ovarian, and she was sent home for operation. By chance she consulted him, and he diagnosed pregnancy. Another, however, diagnosed hydatid tumour of the liver, and recommended puncture. The case went on and she was delivered; but a tumour was left behind which was still pronounced to be ovarian. Puncture caused it to shrink, and it did not recur.

Mr. Hulke said that, years ago, Dr. Budd had tapped a hydatid cyst, but only a few drops of fluid came away. Some years after, the woman died in childbirth, and a shrunken cyst was discovered.

Mr. Barwell asked why two needles were employed, and why they were connected with the negative pole.

Dr. Althaus was glad to find that his suggestion had turned out well, as the treatment by tapping had not been very successful. If electricity was not required, it was good that acupuncture should be employed. Two needles were employed to extend the disengaging surface, and the negative pole was used as developing hydrogen, not oxygen.

Dr. Murchison said it would seem that fluid had escaped from the cyst, and yet no bad action had been set up. Was it advisable to allow the fluid to percolate into the peritoneum or to allow it to escape? Suppuration generally followed secondary enlargement after tapping. This enlargement would usually subside of itself. The entry of air into the cyst depended on the care taken in tapping, and the use of the aspirator would prevent any chance of its entrance.

After brief replies from Dr. Fagge and Mr. Durham, the meeting was made special, to consider the amalgamation scheme, the result of which has been already detailed.

OBITUARY.

WILLIAM TYETH COSTER, L.R.C.P. EDIN., M.R.C.S., AND L.A.C.,

Died last week, at a comparatively early age, of hæmorrhage from the lungs. Dr. Coster, at the time of his decease, was Surgeon to the Central London District School, at Hanwell. His labours in pursuit of his duty were very onerous, and left him but little leisure. The manner in which he performed that duty was evidenced by the high order observable in the establishment. There was evidence at every point of his care of the inmates, and of the conscientious manner in which he fulfilled the trust reposed in him. Dr. Coster was lately for some years Surgeon to the St. Pancras Infirmary and Workhouse, and formerly Physician's Assistant to University College Hospital, and Sub-Curator of the Museum of Anatomy and Physiology, University College. He was a man of considerable talent and acquirements, and much respected and esteemed.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 15th inst., viz.—

Applin, George Peek, Addiscombe, of Guy's Hospital.
Archer, George Ernest, Fettwell, Norfolk, of St. Bartholomew's Hospital.
Ball, James Barry, Dublin, of University College.
Brooks, Job Edwin, L.R.C.P. Edin., Silverdale, Staffordshire, of the Birmingham School.
Burgess, William Frederick Richardson, M.B. and L.S.A. Lond., Bethnal-green-road, of Guy's Hospital.
Clarke, John Stephen, New York, of the Liverpool School.
Crowther, William Edwin, L.S.A., Hobart Town, of Guy's Hospital.
Douglas, William Thomas Parker, M.B. Cantab., Banbury, of Guy's Hospital.
Franklin, George Cooper, Leicester, of St. Thomas's Hospital.
Garratt, William, Madras, of Guy's Hospital.
Gray, George James, Stonehouse, Devon, of University College.
Hammond, William, Howden, Yorkshire, of University College.
Harrison, Richard, St. Lawrence-road, W., of St. George's Hospital.
Jackson, Thomas Scoresby, M.B. Edin., Whitby, of the Edinburgh School.
Jolly, Robert, M.D. and F.R.C.S. Edin., Birmingham, of the Birmingham School.
Love, Augustus Edgar Burch, L.S.A., Vauxhall-bridge-road.
Morris, Henry, Queen's-terrace, N.W., of St. Mary's Hospital.
Morris, Malcolm Alexander, Twickenham, of St. Mary's Hospital
Mummery, John Howard, Cavendish-place, of University College.
Noot, William Mathias, L.S.A., Cardigan, of the Middlesex Hospital.
Orton, Edward William, L.R.C.P. Edin., Foleshill, Coventry, of the Birmingham School.
Roche, Eleazer Birch, Norwich, of King's College.

The following gentlemen passed on the 16th inst., viz.:—

Allnatt, William, L.S.A., Portsea, Hants, of King's College.
Beatson, William, Camberwell, of Guy's Hospital.
Burroughs, John Edward Buckland, Lee, Kent, of Guy's Hospital.
Drake, Francis Henry, Pontefract, of the Leeds School.
Evans, Edward Brynan, Swansea, of Guy's Hospital.
Fox, Hugh Courtenay, L.S.A., Stoke Newington, of the London Hospital.
Gosse, Charles, Adelaide, South Australia, of the Charing-cross Hospital.
Harris, Michael, Hackney, of Guy's Hospital.
Johnsoo, William John, Worksop, Notts, of Guy's Hospital.
Larkin, Frederick George, Maypole Heath, near Canterbury, of Guy's Hospital.
Martin, Henry Charrington, M.B. Edin., Reigate, of the Edinburgh School.
Palmer, Henry Drake, Olney, Bucks, of Guy's Hospital.
Ritchie, William, M.D. Dub., Newtown, Limavady, county Derry, of the Dublin School.
Vasey, Charles Lyon, L.R.C.P. Lond., Cavendish-place, of St. George's Hospital.
Walker, George Edward, Quorndon, Leicestershire, of St. George's Hospital.
Wottan, Henry, Plymouth, of the Edinburgh School.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 10, 1870:—

Anderton, John Heyes, Leigh, Manchester.
Cotterell, William, Westport, New Zealand.
Love, Augustus Edgar Burch, Vauxhall-bridge-road, London.
Skrimshire, Frederic William, Holt, Norfolk.

As Assistants in Compounding and Dispensing Medicines:—

Fowler, William Ratcliffe, East Kirkley, Lincolnshire.
Robertson, George, London Hospital.

The following gentleman also on the same day passed his First Professional Examination :—

Watson, Charles Russell, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Baumgartner, John Richard, M.R.C.S.—Resident Accoucheur to King's College Hospital.

Glanvile, J., M.R.C.S., L.M.—Assistant House-Surgeon to the Government Hospital, Trinidad.

Hayes, Thos. Crawford, L.S.A.—House-Physician to King's College Hospital.

Leigh, Richmond, M.R.C.S. Eng., L.S.A.—Junior House-Surgeon to the Liverpool Southern Hospital, *vice* Mr. W. Little, promoted.

Little, William, L.R.C.P., M.R.C.S. Eng., L.S.A., Associate, King's College, London—Senior House-Surgeon to the Liverpool Southern Hospital, *vice* Mr. W. R. Davies, resigned.

Rope, Henay John, M.R.C.S.—House-Surgeon to King's College Hospital.

MILITARY APPOINTMENTS.

Medical Department.—Assistant-Surgeon Samuel Fuller, from the 4th Hussars, to be Staff Surgeon, *vice* Staff Surgeon-Major Henry March Webb, M.B., who retires on half-pay. Assistant-Surgeon Henry Theodore Chapman, from the 76th Foot, to be Staff Assistant-Surgeon, *vice* Abraham Augustus Stewart, M.B., appointed to the 76th Foot.

Scots Fusilier Guards.—Staff Assistant-Surgeon William Collins, M.D., to be Assistant-Surgeon, *vice* Henry Turner, deceased.

4th Hussars.—Staff Assistant-Surgeon Peter Shepherd, M.B., to be Assistant-Surgeon, *vice* Samuel Fuller, promoted on the Staff.

65th Foot.—Staff Assistant-Surgeon John Williams, to be Assistant-Surgeon.

76th Foot.—Staff Assistant-Surgeon Abraham Augnstus Stewart, M.D., to be Assistant-Surgeon, *vice* Henry Theodore Chapman, appointed to the Staff.

BIRTH.

Sansom.—On November 12, at 29, Duncan-terrace, N., the wife of A. Ernest Sansom, M.D. Lond., of a son.

MARRIAGES.

Allfrey—Smith.—On November 10, at the parish church, Charles Henry Allfrey, M.D., F.R.C.S., of St. Mary Cray, to Emily Malden, younger daughter of Thomas Heckstall Smith, F.R.C.S., Rowlands, St. Mary Cray.

Arfwedson—Walker.—On November 12, at the parish church of St. Luke's, Westbourne-park, William Alfred Arfwedson, Esq., son of Carl Arfwedson, of Stockholm, to Eva de Burgh, eldest daughter of the late Edward Dering Walker, M.D., Orchard House, Teignmouth, Devonshire.

Miller—Hull.—On November 10, at St. Barnabas, Kensington, Henry William, son of the late Richard Miller, Esq., of St. John's-wood, to Agnes Logan, second daughter of George Hull, M.D., Kensington.

Poyson—Lycett.—On November 9, at the parish church, Scarborough, Samuel Poyson, eldest son of the late Samuel Poyson, Esq., of Laythorpe-heath, Lincolnshire, to Margaret Anne, second daughter of John Lycett, M.D., of Scarborough.

DEATHS.

Blades, Alan Corbett, only son of C. Corbett Blades, M.D., at 171, Kennington-park-road, on November 11, in his 3rd year.

Blount, Sarah, daughter of the late Samuel Blount, M.R.C.S., at 129, Offord-road, Barnsbury, after long suffering, on November 12.

Bousfield, Frances, second daughter of the late William Brackenbury Bousfield, M.D., of Horncastle, at Trusthorpe, Lincoln, on November 10, aged 49.

Griffith, William, M.D., late of 78, Belgrave-road, S.W., at Brighton, on November 15.

Littlejohn, Mary, daughter of Dr. H. D. Littlejohn, at Royal-circus, Edinburgh, on November 9, aged nearly 6 years.

Royston, John, M.R.C.S., L.S.A., late of Whitwell, at Chesterfield, on October 30, aged 50.

Terry, Charles Mitchell, M.R.C.S., at 4, Agincourt-villas, Norbiton, Surrey, on November 10, in his 81st year.

Welch, George, M.R.C.S., on November 10, at Stansted, Montfichet, aged 69.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Coventry and Warwickshire Hospital.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before November 19.

Doncaster General Infirmary and Dispensary.—House-Surgeon; must be duly qualified and registered. Applications and testimonials to the Hon. Secretary on or before December 1.

Dursley Union.—Medical Officer for the Third District. Candidates must be duly qualified. Applications and testimonials to Mr. G. Wenden on or before the 23rd inst. Election the next day.

Farringdon Dispensary, Bartlett's-buildings.—Resident Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. S. Green, Hon. Sec., 10, St. Swithin's-lane, London, on or before December 3, 1870.

General Hospital, Birmingham.—Resident Registrar and Pathologist; must have both Medical and Surgical qualifications. Applications and testimonials to the House-Governor and Secretary on or before the 24th inst.

General Hospital and Dispensary for Sick Children, Bridge-street, Manchester.—The office of Assistant Medical Officer will be vacant at Christmas. Applications and testimonial to Dr. Borchardt on or before November 20.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-Street, W.—Visiting Physician; must be M.R.C.P.L. Applications and testimonials to the Secretary.

Lincolnshire County Asylum.—Assistant Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Dr. Palmer, at the Asylum, Bracebridge, Lincoln, on or before December 3. The duties will commence on the 17th.

Liverpool Southern Hospital.—Honorary Physician; must have a Medical qualification, and must not be engaged in the practice of Surgery, Pharmacy, or Midwifery. Applications and testimonials to G. H. Horsfall, Esq., on or before Nov. 29. Election the following day.

Moapeth Dispensary.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

Poplar Hospital.—Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary, on or before November 29. Election on December 7.

Reeth Union.—Medical Officer for the Muker District. Candidates must be duly qualified and registered. Applications and testimonials to James R. Tomlin, Clerk, on or before December 2.

Stockport Infirmary.—Assistant House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Hon. Secretary, on or before December 1.

West Derby Union.—Assistant Medical Officer. Candidates must be duly qualified. Applications and testimonials to Mr. W. Cleaver, Union Clerk, West Derby, Liverpool, on or before the 29th inst.

Western General Infirmary.—Physician; must be F. or M.R.C.P. Lond. Applications and testimonials to the Secretary on or before November 28. Election on December 7.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Alton Union.—Mr. G. W. Harrison has resigned the First district; area 13,596; population 3752; salary £100 per annum.

APPOINTMENTS.

Billericay Union.—George R. Raine, M.D. Lond. Univ., M.R.C.S. Eng., L.S.A., to the Great Burstead Dispensary.

Bridgend and Cowbridge Union.—John Davies, M.D., B.M., and M.C. Univ. Glas., to the Northern District.

Eastry Union.—Frederick S. La Trobe, M.R.C.S. Eng., L.S.A., to the Ash District.

Erpingham Union.—Arthur E. Fluder, M.R.C.S. Eng., L.S.A., to the Northrepps District.

Llanrwst Union.—Gwen Evans, M.R.C.S. Eng., L.S.A., to the Pentrefoelas District.

Whitechapel Union.—James John Hott, L.R.C.P. Edin., M.R.C.S.E., L.S.A., to the Workhouse.

Association of Medical Officers of Health.—The next meeting will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday, November 19, at 7·30 p.m. Dr. W. C. Wise, Medical Officer of Health of Plumstead, will be balloted for as a member of the Association. Dr. Stevenson will make some observations on the properties of Chloralum. Dr. Ballard will read a paper on "A Localised Outbreak of Typhoid Fever in Islington, in July, 1870." Dr. C. J. B. Aldis will read a short paper (should time permit) "On Scarlet Fever for Ten Years in the Parish of St. George, Hanover-square."

Poor-law Medical Officers' Association. — A general meeting will be held at the Freemasons' Tavern, Great Queen's-street, Lincoln's-inn-fields, on Tuesday, November 24, at half-past 7 p.m. precisely, when the following subjects will be submitted for consideration:—1. Registration of disease. 2. The proposition for constituting out-door Poor-law Medical officers deputy health officers in their respective districts. 3. A review of the Medical section of the annual report of the Poor-law Board 1869-70. 4. Mr. W. H. Smith's notice of motion on poor relief in the metropolis. 5. Dr. Brady's scheme for amended Medical relief. Other important matters will also be brought before the meeting, and we trust that there will be a large attendance at what promises to be a very interesting gathering.

It has been unanimously decided, at a general meeting convened by the Mayor of Liverpool on the 2nd inst., to establish an annual "Hospital Sunday," for the purpose of making simultaneous collections at all churches and chapels of the town and neighbourhood on behalf of the Medical charities. It is thought that an annual sum of at least £4000 will be thus raised.

Small-pox is reported to be raging amongst the Indians in the neighbourhood of Victoria and Fort Pitt. Whole wigwams are reported to be tenantless. The disease is specially fatal amongst the Pagan Blood and Blackfeet Indians.

Mr. Daniel Richardson, late Medical officer for the Western district of the parish of Brighton, has been granted a superannuation allowance of £52 per annum.

Vaccination.—At the last meeting of the Boston Board of Guardians, a letter from the Poor-law Board was read, complaining in strong terms that the Guardians had not complied with the provisions of the Vaccination Acts; and, after some discussion, it was decided to hold a special meeting that day month, to take the matter into consideration.

Medical Mayors for 1870-71.—John Griffin, M.D. Univ. Edin., for Banbury; Evan Pierce, M.D. Univ. St. And., for Denbigh (5th time); George Green Sampson, M.R.C.S. Eng., for Ipswich; Lawrence Spencer, M.D. King's Coll., Aberd., for Preston; William F. Rooke, M.D. Univ. Edin., for Scarborough; Frederick Chambers, M.D., for Margate.

At the last Spittlegate Petty Sessions, Charles F. Lane, grocer, was summoned for the third time for neglecting to have his child vaccinated. Defendant said he objected from conscientious motives; he had lost one child from vaccination, and felt that as a parent he must hold out. He asked the justices to mitigate the penalty on the ground that Government had promised an inquiry into the whole subject. He was fined 20s. and 14s. costs.; or fourteen days' imprisonment in default.

Names of the successful candidates who passed the recent competitive examination for admission into the Medical service of the Royal Navy, held at the London University, between November 7 and 10, in the order of merit in which they passed, and the number of marks obtained:—

	No. of Marks.
Richard William Coppinger, M.D., Queen's College, Cork	2060
William Edward Robson, Royal College of Surgeons, Ireland	1700
Robert Waller Biddulph, M.B., Trinity College, Dublin	1340
John Jennings, Queen's College, Cork	1290
Marcus Allen, Dublin University	1205
Henry Beaumont, Royal College of Surgeons, Ireland	1130

Health of St. Marylebone.—Dr. Whitmore, in his monthly report for October, says:—Amongst zymotic diseases one death from small-pox was registered, and this is the first that has taken place in the parish since the month of July, 1869. Scarlet fever still continues its ravages, and shows no present indications of abatement. It is not confined to any particular district of the parish, nor any particular class of persons, except that the poorest and most destitute—those who live in filth and misery, and whose sanitary surroundings are of the worst possible kind—appear to be the most exempt from it. This I know will startle many who insist in believing that every disease of the zymotic class is due to defective sanitary conditions, but it is not the less true. I have taken some trouble to inquire into the cases of scarlet fever that have occurred in this parish during the last twelve months, and I unhesitatingly assert that this one disease—unlike typhoid fever, diphtheria, diarrhœa, and some others—is as generally fatal, and as frequently assumes its most malignant type, in the dwellings of the rich, and where the sanitary conditions are perfect, as in houses where conditions the very opposite exist. Measles during the past month shows a tendency to increase; from this disease ten deaths were registered. The death rate generally has been rather below the average.

Health of Scotland.—During the month of October, 1870, there were registered in the eight principal towns of Scotland the births of 3255 children, of whom 1678 were males and 1577 females. Of these, 2989 were legitimate and 266 illegitimate. The deaths of 1942 persons were registered in the eight towns during October. Allowing for increase of population, this number is 247 under the average of the month for the last ten years. The zymotic class of diseases proved fatal to 499 persons, constituting 26 per cent. of the mortality. This rate was exceeded in Dundee from the prevalence and fatality of scarlatina, hooping-cough, and diarrhœa, in Aberdeen from scarlatina, in Paisley from measles and fevers, and in Leith from scarlatina and diarrhœa. Fever caused 105 deaths, constituting 5·4 per cent. of the mortality. Of these, 48 were attributed to typhus, 33 to enteric, 18 to relapsing, 3 to simple continued, and 3 to infantile remittent fever. Scarlatina was the most fatal epidemic, having caused 127 deaths, or 6·5 per cent. of the mortality. Of the deaths in Aberdeen, 14·8 per cent. were from that cause.

At the next meeting of the Hunterian Society, on the 23rd inst., at eight p.m., at the London Institution, Finsbury-circus, Mr. D. De Berdt Hovell will read a paper on Hysteria, in which the following propositions will be maintained:—1. That the disease called hysteria has no necessary connexion with the uterus. 2. That it is essentially a condition of depressed physical and moral power; and all the phenomena of the disease are produced by irritation, in some form or other, superadded to that condition. 3. That the ill-defined, obscure, intractable qualities of the disease are mainly due to the hypothesis of uterine irritation, and the malpraxis which ensues thereupon. 4. That the difficulties of the subject are entirely due to the preconceived opinions with which it has so long been regarded; when these have been abolished, the disease will at once become both simple and tractable. Members of the Profession interested in the subject are invited to join in the discussion.

Alleged Neglect by Hospital Authorities.—An inquiry was held the other day by Mr. Barford, at the Westminster Hospital, as to the causes of death of Henry Randall, aged 41, a waterside labourer. Deceased had been an in-patient for disease of the heart and lungs at the King's College Hospital, and the case created considerable interest, owing to his friends asserting that he had been discharged from that institution while in a dying state, during the thick fog of the 9th inst. Mrs. Ellen Randall, the widow of the deceased, said that her husband had been a patient in the King's College Hospital for the last five weeks. She visited him on the Tuesday, when he appeared to be very ill. He then told her that he had received orders to leave the Hospital on the following morning. He made no complaint beyond saying that he was not in a fit state to leave. On the following morning witness went to take her husband home. While waiting for him she told the chaplain of the Hospital that she thought it very wrong to send her husband away in such a fog. The chaplain gave her 2s. for a cab, and she sent her son to fetch one. On their way home, however, he became alarmingly ill, and desired to be taken to the Westminster Hospital, where he died the same evening. Mr. Thomas Walker, House-Physician at the Westminster Hospital, said that he made a post-mortem examination, and that death was caused by disease of the heart and lungs. The foggy state of the weather was likely to have affected him. Mr. T. C. Hayes, Physician of King's College Hospital, at first refused to be sworn unless the coroner would tell him whether he was to be examined as an ordinary or a Medical witness. The coroner, however, declined to answer any such question, and Dr. Hayes at length consented to be sworn. He said that deceased had made no objection to leaving, and that, from the state of his heart, he was liable to die at any time. After hearing some further evidence, the jury returned a verdict that the deceased died from natural causes, but they added an expression of deep regret that he had been discharged from the King's College Hospital in such a fog as that of the 9th, considering the nature of his complaint. [N.B.—This man had enjoyed the privileges of the Hospital for five weeks, and it is not pretended that he would have derived greater benefit from a longer residence there. Perhaps it can be shown that the fog was the fault of the Hospital. One or two stupid or malicious persons on that antiquated farce of an institution—the coroner's jury—may bring any person or institution into unjust odium.]

Dr. Foster's Inaugural Lecture on Physiology at Cambridge.—Dr. Michael Foster, the newly appointed Prælector on Physiology at Trinity College, Cambridge, commenced his course of lectures last Monday in a part of the new museum, which has been temporarily fitted up as a physiological laboratory. He gave a lucid and able exposition of the three great factors of life—contractility, as evinced chiefly in muscles; irritability, as evinced chiefly in the nervous system; and secretion; dilating upon the much-vexed question of how far these are attributable to physical agencies, or are to be referred to another agency called "life." He compared the latter view to a fortress closely besieged by an able band of investigators, who are ever narrowing its area and pressing the physical forces closer and closer upon it. But it has not yet capitulated. No one has a right to say that it will or will not capitulate; and till it has done so we are perfectly justified in regarding it as an entity—as a something to be taken into account in the investigation and the attempts at the explanation of living processes. He should still, therefore, use the term without committing himself to either view. He gave definitions of physiology and morphology, and spoke of the enormous importance of vivisection to the advance of physiology.

By it Vesalius might be said to have laid the foundation of physiology; by it Harvey had been enabled to obtain the proofs of his great discovery. Without it all that had been written on physiology would have gone for very little, and we should still have been in the Aristotleian mist, darkened by the theories of the schoolmen. He wished, however, to state that, in the teaching of physiology, it would not be necessary for him to resort to it much. He stated the plan he intended to pursue in carrying out the intentions of those who had placed him in that honourable position. Lectures he did not regard as a very fructifying mode of sowing seed. He thought it far better that men should work and see for themselves. With the munificent aid of Trinity College, he hoped ere long to make the physiological laboratory in Cambridge one of the best working laboratories in the country. He intended to have practical classes in addition to the lectures; and students who were competent would have opportunities for private work. It would be a labour of love to him to render practical aid to those who needed it, and to promote the study of physiology by every means in his power. A considerable number of the senior members of the University were present, as well as undergraduates, and warmly applauded at the close of the lecture. The lectures are, for the present, open to all members of the University without fee.

The Female Medical Students and the Royal Infirmary.—The memorial of the female Medical students attending the University, praying for a reconsideration of the decision excluding them from the wards of the Royal Infirmary, was again brought before the managers of that institution at a meeting held on Saturday. There was submitted a petition from upwards of 500 of the male Medical students, objecting to the presence of the ladies in the wards at the same hour as the regular classes; and a memorial was read, signed by nearly all the Medical officers of the Infirmary, who asked to be heard before any resolution was come to by the managers. The meeting agreed to comply with the request of the Medical officers, and adjourned consideration of the matter till a future day. The following is the petition from the students, with accompanying letter:—

"Edinburgh, November 12, 1870.

"Sir,—We take the liberty of asking you to present to the managers of the Royal Infirmary, at their meeting to-day, the accompanying petition from the students of the Edinburgh Medical School, and also to draw their attention to the following facts connected with it:—That the petition has been signed by 504 students of Medicine, and that of this number 490 gave their signatures yesterday in the course of seven hours; that the greatest care has been exercised by the committee in charge of the petition that none but registered Medical students should sign it, as it was presented for signature only at the various Medical class-rooms, and at the gate of the Royal Infirmary; that, with special reference to the teachers who have admitted ladies into their classes, we find, on a cursory examination, at least thirty students studying under Dr. Handyside, twenty-four under Dr. Watson, and seven under Dr. Duncan, have signed the petition.

"Signed, in the name of the Students' Committee by

"Robert Lawson, University.

"T. W. Parry, Royal College of Surgeons.

"Peter Bell, Esq., Clerk of the Incorporation."

"To the Honourable the Managers of the Royal Infirmary of Edinburgh.

"My Lords and Gentlemen,—We, the undersigned, Medical students of the University of the Royal College of Surgeons, Edinburgh, understanding that an application has been made by the ladies at present studying Medicine in Edinburgh for admission to the Infirmary, respectfully petition that such application, in so far as it may refer to the usual visiting hours—between twelve and two o'clock—be not granted, on the following grounds:—

"1st. Because many of the Medical officers are opposed to the innovation.

"2nd. Because, if the ladies be allowed to visit the wards at the usual hours, one of two things must necessarily result—either that many subjects of the gravest Medical importance will be imperfectly treated or omitted altogether; or, in the event of such subjects being entered into in detail, we should feel compelled to abstain from being present while such topics are being discussed before a mixed audience.

"3rd. Such being the case, we would respectfully draw the attention of the managers to the fact that, when we entered upon our Hospital studies, we had no means of foreseeing that there was any probability of their having to be pursued under circumstances so distasteful to us; and further, that had such circumstances been foreseen, they would have materially influenced us in our choice of a school of Medicine.

"For these and other reasons to which we think it unnecessary to refer, we respectfully submit that it would be prejudicial to the best interests both of the institution and of the students to throw open the wards of the Hospital for the simultaneous instruction of male and female students."—*Scotsman*, Monday, November 14, 1870.

Dr. Ballard on Revaccination.—In the presence of rapidly-advancing small-pox, I cannot urge too strenuously upon all persons above the age of 15 or 16 years the importance of renewing their protection by revaccination. Under the new regulations, infants are now looked after, and we must hope that few will escape protection; but all young persons from the ages mentioned are still liable to attack, notwithstanding their vaccination, although much less liable than if they had never been vaccinated at all. It is the ages from about 16 to 26 years which, in a vaccinated population, furnish the large majority of cases during the epidemic season.

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

B. C.—Arsenic is the remedy; but we must refer "B. C." to his Medical attendant.

A. B. C.—In the interests of the institution, the facts should be made public.

Ruhe.—We do not care to prescribe for such cases; but may advise the use of a lotion of one grain corrosive sublimate, one ounce of glycerine, and two ounces of water. Besides this, use Calvert's carbolic soap.

M.R.C.S.—Probably "yes" to both questions; but we do not advise "M.R.C.S." to wait for a change in the law. *Rusticus expectat*, etc., etc. Better get the most convenient qualification available at once.

Liverpool Southern Hospital.—The mistake in the date in the advertisement for the election of an Honorary Physician, which appeared in our last week's number, was made in transmission by the Post-office. The applications for the vacant Physiciancy must be sent in before Tuesday, November 29, and addressed to the President, George H. Horsfall, Esq.

Dr. Hayward's House.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I appreciate your complimentary remarks on my house, and I wish to say that I shall be happy to afford any of your readers an opportunity to inspect it. I quite agree with you that an essential part of ventilating dwellings is an arrangement for warming the air as it comes in; otherwise the air will be sure to be shut out when it is most needed in. By warming the air as it comes in, my lobbies can be kept continually—both night and day—fifteen degrees warmer than the external air for 2s. 6d. a week, and I believe the lobbies of a model lodging-house could be similarly warmed for the same cost. I am, &c.

John W. Hayward, M.D.

117, Grove-street, Liverpool, E., November 12.

John asks—"At the preliminary examination for Member of the College of Surgeons, is it better to translate the Latin literally or otherwise?" Of course it is desirable to translate the Latin as literally as possible—at the same time bearing in mind that you have to translate it into *English*.

Medical Charges.—We insert a letter on this subject in our present issue. The question is at all times of great importance. Next week we shall give our views on the subject, and more especially with reference to an able document drawn up by Dr. Jakes Styrap for the Council of the Shropshire Ethical Branch of the British Medical Association.

A Family Medical Club.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have enclosed a paper that has been extensively circulated in this neighbourhood, and posted up in some of the shop windows of this town during the past week or two. The gentleman who advertises is a stranger, and I cannot find his name in the last Medical Directory. Can you tell me what qualifications he has? I am, &c. F.

Wadebridge, November 4.

"Woodbine Cottage, Wadebridge, Cornwall.

"*George Canning Carter's Family Medical Club.*

"———, of ———, is entitled to medicine and Medical attendance.

"*Regulations.*—The object of this club is to provide medicine and Medical attendance to members of the working class only, by easy weekly instalments.—Persons admitted on examination by payment of 6d. entrance fee, and a subscription of 1d. a week; but should the subscription be more than four weeks in arrear, all benefit accruing from this Society will be lost.—Members are required to attend, if possible, at the Surgery before 11 a.m.; to bring their own bottles and produce this paper.—No patient can be visited at his or her own house who resides a greater distance than one mile from the surgery.

"N.B.—Female member of this club atttended at their confinements for half-a-guinea, on leaving a deposit of half-a-crown.

"Receipts ———."

*** We cannot find the name of George Canning Carter in the Medical Register, 1870.

The New Title.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the event of the present examining bodies amalgamating and forming one Board for the admission of candidates to practise Medicine, etc., what title will they give their members?

I may be premature in speaking of the baptism of the children before the birth of the parent; but assuming the same law that gives existence to the parent will also give a title to the offspring. I submit the two are contemporaneous, and should be discussed together.

I am, &c.

Sussex, November 15. A Medical Man.

*** Of a name we may say as of a poet—*nascitur non fit.* Most names slip into use rather by accident than design. As the qualification is in some measure complex, so, perhaps, will the name be—for example, "Licentiate in Medicine, Surgery, and Midwifery."

A Constant Reader sends us the following as to the relation of dysentery to sewage:—

"Several years ago dysentery raged violently in the old barracks at Cork. At the perind in question, the troops were supplied with water from the river Lee, which, in passing through the city, is rendered unfit for drinking by the influx of the contents of the sewers from the houses, and likewise is brackish from the tide. Mr. Bell, Surgeon, of Cork, suspecting that the water might have caused the dysentery, had a number of water carts engaged to bring water for the troops from a spring called the Lady's Well, at the same time that they were no longer permitted to drink the water from the river. From this simple but judicious arrangement, the dysentery very shortly disappeared amongst the troops."—Cheyne, on "Dysentery," 1821.

The O. W. Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—May I ask you to acknowledge several additional contributions to the O. W. Fund? Another numerous and liberal list from Dr. Richardson accompanies this. I have also received a cheque for £8 10s. from my friend Dr. Russell, of Birmingham; several contributions, also, through Dr. Alexander Henry, and many offerings from personal friends of Dr. O. W. With your permission, I will forward an entire list next week, and shall be greatly obliged if you can find space for its insertion. I am, &c.

Nov. 17. J. S. Lavies.

Dr. Richardson begs to acknowledge the following additional subscriptions to the O. W. Fund:—

W. Martin, Esq. ...	...	£1	1	0	Dr. Donald Fraser	...	£1	1	0
White Cooper, Esq.	...	1	0	0	T. Bryant, Esq. ...	...	1	0	0
Dr. Habershon ...	...	1	1	0	Dr. Gull, F.R.S. ...	...	2	2	0
Dr. Westall... ...	...	2	0	0	Dr. Radcliffe ...	...	1	1	0
T. Turner, Esq., Manchester		1	1	0	W. Calthorp, Esq., Withern		1	1	0
Dr. D. Thorp, Cheltenham		2	0	0	Dr. McIntyre, Odiham ...		1	1	0
E. Lund, Esq., Manchester		1	1	0	Rev. Dr. Bell, Goole ...		2	0	0
Dr. Cogswell ...	...	2	0	0	John Simon, Esq., F.R.S.		1	1	0
Dr. Goddard Rogers	...	1	1	0	R. J. Pollock, Esq., Wimbledon ...	...	...	1	1	0
Dr. Gream	...	5	0	0					
J. F. Clarke, Esq. ...	...	1	1	0	T. Hunt, Esq. ...	...	1	1	0
Dr. Wilkinson, Sydenham		1	0	0	Dr. Morrell Mackenzie ...		2	2	0
Dr. Robert Barnes ...		1	1	0	Dr. A. Carpenter, Croydon		2	2	0
W. Danvell, Esq., Stony Stratford	...	1	1	0	F. A. Bonney, Esq. ...		1	1	0
					R. S. Harvey, Esq., Lincoln		2	2	0
Dr. Leonard, Norwood ...		2	2	0	Dr. Forbes Winslow, D.C.L.		3	3	0
R. Quain, Esq., F.R.S. ...		2	2	0	Arthur Durham, Esq. ...		1	1	0
Dr. Bissett Hawkins ...		1	1	0	A. L.	...	1	0	0
Dr. Gardiner Hill		0	10	6	Lawson Tait, Esq....	...	0	5	0
Dr. Desmond, Liverpool...		1	1	0	Dr. Brady, M.P. ...	...	2	2	0
Dr. Millar	...	2	2	0	Dr. Dowse	...	1	1	0
E. Bartleet, Esq., Birmingham	...	1	1	0	Sir Charles Locock, Bart...		10	0	0
					Dr. A. W. Barclay...	...	1	1	0

Paris during the Siege.—The following are parts of letters from Dr. J. R. Cormack, dated Paris, October 25, and November 3:—

"Being busy, and in good health, I am not yet quite down in the mouth. Baillie, too, is fully occupied with his ambulance duties, which are varied by Hospital work—a good many hours daily—and excursions to the battle-fields when there has been fighting. On Saturday, I had a day of dismal duty—the searching for the wounded left on the field at the close of a sanguinary combat on Friday evening at dark. On Friday evening I got notice to be ready to start at break of day with an *ambulance volante*, for the purpose I have named; and next morning, in the dim light, I was under way with our *infirmiers*—all gentlemen—our stretchers, our bandages, our brandy, and our cutlery. We had also luncheon with us in the waggons, which imparted to our expedition the character of a horrible pic-nic. The morning was cold and foggy, but soon cleared up, and became a superb autumn day.

"The engagement on Friday was an attack by the French upon a sort of semi-circle of wood-crowned heights, extending from Malmaison to Garches. The main offensive attempt was to take the redoubt of Montretout, a position from which projectiles, it is said, might be thrown into Paris as far as the Arc d'Etoile. This I exceedingly doubt. As a magnificent observatory, commanding a complete view of Paris, it is invaluable to the Prussians; but as it is within range of the fire of Mont Valérien, it is not permanently tenable by them. Though Mont Valérien has several times destroyed the Prussian batteries at Montretout, the French have never been able to dislodge the enemy permanently. This arises from a crest of wooded hill intercepting the view of Montretout from the fort of Mont Valérien. They have to fire over this crest, and can only from other points learn the result of their fire. The bearings are now so accurately ascertained, that the Mont Valérien artillery is always able by six or eight shots to destroy the Prussian batteries and send the Prussians skedaddling from the best part of the position.

"It is very important for the French to reinstall themselves there as a means of bombarding the entrenchments of the enemy in the direction of St. Cloud. For twenty minutes they were in Montretout, but before they could get up their guns and entrench a garrison they had to make off. The French, however, made a thorough reconnaissance of the enemy in the important positions I have named, though in other respects they gained nothing. The loss of the Prussians from the French artillery is supposed to have been enormous. The official reports of the French losses are thus given:—Officers: 2 killed, 15 wounded, and 11 disappeared. Men: 32 killed, 230 wounded, and 153 disappeared. Two field-guns taken. I distrust these numbers very much. Our party on Saturday found nearly fifty French dead on the field, and many had been taken away by the peasants. Probably most of those returned as 'disappeared' were killed.

"Thursday, November 3.—For the month of October I was chairman of the British Charitable Fund, which was very hard work—our Monday and Thursday meetings lasting generally from three to five hours; then I had poor English patients and my ambulance duty, which was alternately light and heavy. Last Saturday I was at the engagement at Le Bourget, and brought in thirteen wounded in the three waggons under my direction. Four of the cases—three of which were serious gunshot wounds, and one a contusion from an *éclat d'obus*—I took to my own Hospital, where they have given me much anxiety and attendance, and are now all doing well. Three of the four may now be declared free from danger to life and limb. Saturdays and Wednesdays my liability to be sent on the field comes round. Yesterday was Wednesday; but I was not summoned. To-day the feeling is that there will be little, if any, more fighting. God grant it may be so! I have had as much of the realities of war and siege as is requisite to a full understanding of how horrible both may be, and yet in health of self and family I have not suffered a bit. At the end of another month it might be otherwise."

Restraint of Drunkards.—In some of the Australian colonies a law exists, of which we subjoin a description cut from a Sydney paper. Such an enactment is not likely to be passed here as yet—it would infringe on what is called English liberty:—

"'Upon proof being given to the satisfaction of any Justices in Petty Sessions assembled, that any person shall, by the excessive use of spirituous or fermented liquors, so misspend, waste, or lessen his estate, as thereby to expose himself or his family to want or indigent circumstances, or greatly to injure his health, or endanger the loss thereof, such Justices shall, in writing, under the hands of any two of them, forbid all persons licensed under this or any other former Act for licensing publicans, and also all storekeepers and other dealers in such liquors, to sell to him any spirituous or fermented liquors for the space of one year; and may, at the same or any other time, in like manner, forbid the selling of any such liquors to such drunkard by any such licensed person, storekeeper, or other dealer of any other place to which he may be likely to resort for the same.' The penalty for a breach of such prohibition is discretionary with the Bench, up to £2 for each offence."

Examination of Candidates for Assistant-Surgeoncies in the Royal Navy.

Anatomy and Physiology.—Mr. Busk.

Monday, October 7, 1870.

1. Enumerate the muscles and describe their respective actions, by which the deformity witnessed in the following fractures is probably caused:—(1) Intracapsular fracture of the neck of femur. (2) Fracture at the lower end of femur immediately above the condyles. (3) Colles's fracture of the radius. (4) Fracture through the Surgical neck of the humerus.

2. What spinal nerves enter into the formation of the cervical and sacral plexuses? and describe the general arrangement of the nerves in each plexus. State also what muscles, and what extent of surface are supplied by the branches of each plexus.

3. Mention the various excretions, and point out the principal constituents of each, and the sources whence each of these constituents is derived.

4. Give a full account of the anatomical and physiological relations of the pneumogastric nerves.

5. Describe the membranous portions of the urethra, and the muscles and other parts in immediate relation with it.

Medicine.—Dr. Parkes.

Tuesday Morning, November 8, 1870, 10 a.m. to 1 p.m.

1. Contrast the symptoms of intermittent, relapsing, and enteric fevers, and give minutely the morbid anatomy of the last-named disease.

2. What do you mean by locomotor ataxy, and progressive muscular atrophy, or wasting palsy? Describe the symptoms and pathology in each case.

3. Describe a typical case of pulmonary emphysema, giving the symptoms, causes, and effects. Describe the treatment of a case complicated with acute general bronchitis.

4. What are the chief causes of ascites? Enumerate the diseases which may be confounded with it, and describe the operation of paracentesis.

5. In the case of a pregnant woman, near her full time, what symptoms would lead you to diagnose the death of the child? How would you treat the case, and supposing there was much decomposition and fetid discharge, mention the dangers you would apprehend, and the precautions you would take?

6. What are the chief medicines supposed to act as diuretics? What are the reasons for supposing they do so act, and in what diseases are they given?

Surgery.—Mr. Pollock.

Monday, November 7, 1870, 2 to 5 p.m.

1. Describe the symptoms of fracture of the neck of the thigh-bone within the capsule, the treatment to be adopted in such a case, and the probable result of the injury.

2. A patient accidentally pushed his arm through a pane of glass, and lacerated his wrist and hand in several places; from one of the wounds there was arterial hæmorrhage: what treatment should be adopted in such a case?

3. A man received a kick from a horse in the left lumbar region, and it was diagnosed that the kidney had been ruptured: state the symptoms which would be present under such circumstances, the prognosis, and the treatment.

4. Describe the symptoms of gonnorrhœal ophthalmia, and the treatment to be pursued.

5. By what symptoms would hydrocele of the tunica vaginalis be distinguished from hæmatocele: and what should be the treatment in the latter condition?

6. Describe the symptoms of rupia, the usual cause of the eruption, and the treatment for its relief.

Natural History, etc.—Dr. Thomson.

Tuesday, November 8, 1870, 2 to 5 p.m.

(*a*) ZOOLOGY.

1. Give the distinctive characters of the five classes of vertebrata.

2. Describe the principal modifications of the respiratory apparatus in the invertebrata.
3. Give a sketch of the geographical distribution of mammals.

(*b*) BOTANY.

1. Describe the structure of the stem of an exogen and of an endogen.
2. Describe the development of a moss from the spore.
3. Give the essential characters of the order *Compositæ*.
4. Define *exosmose* and *endosmose*, and explain the circulation of fluids in plants.

(*c*) PHYSICS, ETC.

1. What is the composition of the atmosphere, and its physical characters?
2. Explain the structure of the common pump: Why is there a limit to the height to which it will raise water?
3. What is a glacier? How is it formed, and how does it move?
4. Give an account of the area occupied by the chalk formation in Great Britain; and state the mode in which it has been formed.

COMMUNICATIONS have been received from—

Mr. STEWART; Mr. LAWSON TAIT; Mr. C. E. HAARDYMAN; Dr. FAYRER; Dr. J. W. HAYWARD; Dr. WHITMORE; Messrs. W. and A. GILBEY; Prof. HUMPHRY; Dr. E. V. MILLINGEN; Mr. STEPHEN NOCKOLDS; Mr. T. CHARTERS WHITE; GEORGE T. A.; Mr. LACY; Dr. STYRAP; Mr. P. LE NEVE FOSTER; Mr. J. B. BARNES; Dr. PHILLIPS; Mr. C. F. MAUNDER; Messrs. A. and C. BLACK; Mr. BEWLEY; A MEDICAL MAN; Mr. RIVINGTON; M.R.C.S.; Mr. H. ARNOTT; Dr. DAY; Mr. HOLTHOUSE; Dr. LIONEL BEALE; Mr. J. CHATTO; Mr. T. M. STONE; Mr. F. PIGGOTT; Dr. W. LITTLE; Dr. COAFIELD.

BOOKS RECEIVED—

A Tariff of Medical Fees recommended by the Shropshire Ethical Branch of the British Medical Association—Fleming's Introductory Address—Drysdale on Life and the Equivalence of Force—Journal of Anatomy and Physiology, November—Dublin Quarterly Journal of Medical Science, November—American Journal of the Medical Sciences, October—Richardson's Handbook of Medical Microscopy—American Journal of Insanity, October.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Leicester Chronicle—Woodhull and Chaplin's Weekly—Cork Examiner—Chemist and Druggist.

APPOINTMENTS FOR THE WEEK.

November 19. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. Dr. Stevenson, "Some Observations on the Properties of Chloralum." Dr. Ballard, "A Localised Outbreak of Typhoid Fever in Islington, in July, 1870." Dr. C. J. B. Aldis, "On Scarlet Fever for Ten Years in the Parish of St. George, Hanover-square."

21. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Meeting.

22. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

ETHNOLOGICAL SOCIETY, 8 p.m. Dr. Bleek, "On the Concord and the Origin of Pronouns and Genders," and "On the Position of the Australian Languages."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. John Harley, "On the Endemic Hæmaturia of the South-East Coast of Africa." Dr. George Johnson, "A Case of Traumatic Tetanus; Recovery after Removal of Foreign Body, and Administration of Chloral, &c."

23. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

HUNTERIAN SOCIETY, 8 p.m. Mr. D. De Berdt Hovell, "On Hysteria."

SOCIETY OF ARTS, 8 p.m. Meeting.

24. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

25. *Friday*.

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

CLINICAL SOCIETY, 8½ p.m. Mr. Brudenell Carter, "Case of Presumed Injury to the Ciliary Nerves from a Blow." Mr. Durham, "Case of Spontaneous Fracture of Femur." Dr. Wiltshire, "On Paroxysmal Hæmaturia." Dr. Handfield Jones, "A Query as to the Safety of Subcutaneous Injections." Dr. Silver, "On the Use of Veratrum Viride in Acute Rheumatism."

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Mr. Wm. Ackland, L.S.A., "Notes on a New Polarising Selenite Film." And a Practical Demonstration in Microscopical Injection."

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 12, 1870.

BIRTHS.

Births of Boys, 1174; Girls, 1042; Total, 2216.
Average of 10 corresponding weeks, 1860-69, 2025·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	782	686	1468
Average of the ten years 1860-69	694·2	665·2	1359·4
Average corrected to increased population	...	...	1495
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	8	31	...	3	1	1	...	2
North ...	618210	7	2	34	1	1	2	7	...	3
Central ...	383321	1	...	17	...	2	1	4	...	1
East	571158	22	5	25	1	7	8	3	4	2
South ...	773175	9	4	43	2	7	1	4	4	5
Total	2803989	40	19	150	4	20	13	19	8	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·628 in.
Mean temperature	39·1°
Highest point of thermometer	51·6°
Lowest point of thermometer	29·1°
Mean dew-point temperature	36·4°
General direction of wind	Variable.
Whole amount of rain in the week	0·04 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 12, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Nov. 12.	Deaths Registered during the week ending Nov. 12.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2216	1468	51·6	29·1	39·1	3·95	0·04	0·10
Portsmouth ...	122084	12·8	69	35	54·8	24·2	38·4	3·55	0·00	0·00
Norwich	81087	10·9	47	50	50·5	31·5	39·2	4·00	0·51	1·30
Bristol	171382	36·6	134	96	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	51	36	47·7	28·3	37·6	3·11	0·07	0·18
Birmingham ...	369604	47·2	232	124	48·2	29·5	38·6	3·66	0·04	0·10
Leicester	97427	30·4	74	66	50·0	26·7	37·5	3·06	0·07	0·18
Nottingham ...	88888	44·5	79	29	48·2	25·7	37·1	2·84	0·03	0·08
Liverpool	517567	191·3	402	357	50·2	31·3	39·6	4·22	0·50	1·27
Manchester ...	374993	83·6	253	174	...	...	...	...	...	...
Salford	121580	23·5	98	46	50·5	25·6	36·5	2·50	0·14	0·35
Bradford	143197	21·7	133	57	49·1	29·4	37·4	3·00	0·00	0·00
Leeds	259527	12·0	228	123	49·0	30·0	38·0	3·33	0·20	0·51
Sheffield	247378	10·8	202	102	52·0	30·0	37·6	3·11	0·20	0·51
Hull	130869	36·7	91	51	46·0	21·0	34·0	1·11	0·65	1·65
Sunderland ...	100979	30·5	79	37	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	89	63	45·0	30·0	35·7	2·06	1·60	4·06
Edinburgh	178970	40·4	115	70	50·7	29·0	37·8	3·22	0·20	0·51
Glasgow	468189	92·5	344	259	50·3	24·6	37·6	3·11	0·00	0·00
Dublin (City, etc.*)	321540	33·0	129	122	51·0	26·0	38·1	3·39	0·11	0·28
Total of 20 Towns in United Kingd'm	7216325	33·8	5065	3365	54·8	21·0	37·6	3·11	0·26	0·66
Paris—Week ending Nov. 12 ...	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Nov. 5 ...	622087	167	...	306	...	...	43·3	6·25	...	...
Berlin—Week ending Nov. 10 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·628 in. The highest barometrical reading was 30·26 in. at the beginning of the week, and the lowest was 29·16 in. at the end of the week.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital.

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

Lecture IX.

BEHAVIOUR OF TEXTURES UNDER INFLAMMATION—SPECIFIC INFLAMMATION.

We have followed out at some length the behaviour of the cellular and intercellular elements of texture under irritations, and have been obliged to make a cursory survey of the various inflammations of nearly all the tissues.

If we go on to observe what takes place in the tubular elements under irritations, we shall find that the evident changes in these are soon summed up. These tubular elements are nerve, muscle, and capillary. Our inquiry concerns only the actual nerve tubules and the muscle fibres, etc. We have before understood that in the composition of nervous tissue and muscular tissue these nerve tubules and muscle fibres are respectively combined with areolar tissue and other elements, and that active and visible diseased changes of brain and muscle are all the work of these accessory elements. To deal first with the lower degrees of irritation, the condition called *sclerosis* of the brain and cord—to which attention is just now strongly directed, on account of the interest of the observations of Charcot, Vulpian, and others—is a change which affects especially the neuroglia or proper connective elements of brain and cord tissue. The neuroglia—a substance composed of soft, faintly defined cells, and intercellular substance scarcely fibrillated—increases, and the nerve tubes and cells waste away until the tissue, as seen by the naked eye, becomes shrunken and grey. This change may affect the nervous centres in diffused patches, and then produces a peculiar, very chronic affection, characterised by tonic spasm and paralysis; or it may limit itself to the posterior columns of the cord, when it produces the disease known as locomotor ataxia or tabes dorsalis. Here, however, the *rôle* of the nerve fibres, as to form-change, is wholly passive, they waste away. It is true that the course of the disease, in spasm and pain, which characterise these affections, shows, in a way, only too much activity in the nerves; but this activity is all dynamical. The function of the nerve tissue is excited in the irritation that causes increase of the neuroglia, but the nerve tissue itself does not increase or multiply. There is no formative irritation of the nerve tubules. They waste away into little lines of fat grains. This, indeed, may be taken as the usual behaviour of nerve elements under irritations. It is true, on the other hand, that when nerves are wounded, or even when parts of nerves are taken away, the nervous substance is healed or reproduced. It has even been shown that when a piece of sensory nerve is transplanted into the place of a piece of motor nerve which has been removed, the sensory nerve will heal into continuity with the motor, and then will transmit motor impulses to the muscle. But this is a fact of another kind. There is a modelling or organising power which causes the reproduction of lost parts, and which is seen to increase as we descend the scale of animals, until in crustaceans you find an ability to reproduce a lost leg, and in hydra a little piece of the body will reproduce the whole. We do not know of what sort this power is; we shall have to take more exact notice of it when studying the peculiarities of tumours; at least, it bears no relation to inflammatory irritation, and it never comes into play until the inflammation in the part has ceased. It is in the cicatrix, after healing, that the moulding of the nerve is effected when inflammation is all over. Likewise, it is true that in some parts of the body nervous tissue takes its rise. The most remarkable of these cases is in the so-called *heterotopia cerebri*, cases in which abnormal ganglionic collections of nerve elements are found in the brain. I have seen several, and all these were sub-ependymal in the walls of the lateral ventricles. Also, you find nerve elements in piliferous cysts in connexion with teeth and other organs. In a case of Mr. Durham's, I found brain tissue in a congenital sacral tumour. In all these cases, we are dealing not with inflammatory irritations, but rather with phenomena allied to malformations.

The only exception I know which seems to show that nerve elements undergo active changes of multiplication under inflammatory irritations is in the case of the congenital encephalitis, which has drawn a good deal of attention on the Continent since Virchow first described it in 1865. Softened patches are found in the brain in these infants, and in these softened patches, besides the usual "granule cells" (which represent fattily degenerated neuroglia cells), there are seen spindle-shaped, clear bodies, not provided with nucleus and nucleolus. These, Virchow says, are made by the swelling and severance of the axis cylinders of nerve tubules. Müller has seen the same kind of forms in the retina in albuminous nephritis. There is doubt in some minds whether these changes are inflammatory, but it is often, at least, associated with changes that are undoubtedly inflammatory. So far as I have seen, there is no nucleus in these spindle-like corpuscles. The presence of a nucleus is the only admissible proof of self-nourishing and reproducing power—in short, of active life—in a cell, and the absence of nuclei in these bodies, I believe, shows that the change which produces these spindle-like products of the axis cylinder is a passive breaking up of it rather than active vital multiplication.

This, then, I believe, is only an apparent exception to the rule, that under irritation the tubular elements never multiply, but waste away or rapidly break down. The effect of the most severe acute inflammations on the proper elements of the brain you may see in this drawing of the early stage of pyæmic abscess, which shows itself as a patch of deep-red softening, very different from another so-called red softening—I mean from that pink, softened state that results sometimes from embolism of the cerebral arteries, and may be produced artificially by introducing seeds or other bodies into the arteries of the brain, when it is caused by escape of blood into passively softened brain tissue. In the red pyæmic patch you see the nerve cells and fibres breaking down into granules and dispersing. There is no attempt to multiply them, as in the case of cellular and intercellular elements under irritation. The same is true of muscular fibres. In this drawing of the contents of an early pyæmic abscess in the tongue you see that, along with pus, there are present numerous sarcous elements in all kinds of arrangement and clustering, and more or less defaced, being the relics of the muscle fibres. Now, in the outer parts of the patch, where the fibres are still in their places, you see between them, but not in them, rows and clusters of pus cells in the places where naturally the connective tissue corpuscles are present. I have a number of such specimens from several cases, and they all show the same general fact, that the proper fibres break down under these acute irritations, and the activity which produces the pus or lymph cells is in and of the intercellular elements of the connective, which are planted between the fibres.

Likewise, the capillary vessels do not show any formative changes under irritation. The only approach to a contradiction to this which I know is in the curious bodies observed in the brain in general paresis cases by Dr. Sankey. Capillary vessels are found coiled up spirally within a sheath apparently continuous with the outer coat of the arteriole they come from. Whether these are new formations, or whether they result from chronic irritative changes which conduce to the wasting of the brain and adhesion of the membranes in this disease, I do not know, but the latter is by far more probable. When I say that there is no inflammatory formative irritation in capillaries, I may seem to be denying a very obvious thing—namely, the production of vessels in inflammatory false membranes. But this is a different thing altogether: vessels arise in the false membrane by that developmental modelling process I have spoken of before, and they arise long after the inflammation is over. But the capillaries themselves, in a tissue that is inflamed, do not furnish any new elements under the irritation, as the connective and epithelial cells do.

I think, then, making fair allowance for all apparent exceptions, we may state this as the law of tubular elements: that they never multiply under inflammatory irritations, either acute or chronic; they waste away and disappear, and the more acute the irritation, the more rapidly and obviously do they waste. This character sets them in a sharp opposition both to cellular and intercellular elements.

We have now gone over, cursorily, the phenomena which are seen by the microscope in the dead tissues after inflammation. We have before considered the appearances presented in the microscopic examination of transparent living tissues under irritations artificially produced.

To complete the history of inflammation, we should have to take up the study of the various courses of inflammation that

are seen at the bedside, and of the different naked-eye appearances which are seen in the post-mortem rooms, and to watch the approaches that the inflammatory products make to the substances called tubercle and tumour, the modifications of it in caries, scrofulous ulcerations, irritative dropsies, and other outlying varieties; and the study of all these is quite necessary if we are to have a sufficient view of the extended and varied characters of the processes into which inflammation enters.

But the clinical varieties and the post-mortem appearances of inflammation are the gross products of the finer changes which we have already now considered—namely, the changes in the vessels and the parenchyma which microscopic vision proves the inflammatory process to consist of, and in which inflammation, when thus seen analytically, is discovered to consist. How are these clinical varieties produced?

We must observe that, so far as we have yet considered inflammation in this method, we have found inflammations to differ on account of the natural characters of the tissues which are implicated. We found the mobility and natural short life of cellular elements, the fixity and endurance of intercellular elements, and the dynamical activity and nutritive and reproductive inertness of tubular elements, to determine that, *under different degrees and under different durations of irritation*, there shall be *different kinds of inflammation* in tissues, according to their components. But inflammations, then, differ on two distinct and widely different accounts. The one cause of difference is the nature of the several elements themselves which we have seen; the other is the intensity, the duration, or other peculiarities of the irritation that affect these elements, which we have now to see. Now, so far as the first of these sources of difference—the various nature of the elements—creates a set of inflammations of various character, so far the inflammations, though various, are yet a mere excess of the action natural to the elements, and so far these inflammations are *common* or normal and *not specific*. But so far as the inflammation gets peculiarities from characters in the irritation, so far we shall see the inflammation as having a nature of its own, apart from the natural action of the tissues, and shall call it a *specific* inflammation.

Let me put this a little more explicitly. We see that the nature of the tissues themselves contributes a factor to the entire thing we call an inflammation: this we may call the constitutional or *intrinsic factor;* and we see, also, that the thing which irritates the tissues to these changes contributes another factor of the whole inflammation: this we may call the foreign or *extrinsic factor*. Now, this extrinsic factor varies very much in its nature. Sometimes it is a "contagium"—whatever thing this is—whether it is an organised living thing, or an unorganised living substance, or a catalytic ferment, or a chemical agent; whatever it is, it will, in small-pox, exert its own influence to imprint laws governing the course of the inflammations it excites. The extrinsic factor dominates with its peculiarities, and we call small-pox inflammation a specific inflammation. We should say the same of the cutaneous irritations produced by shell-fish, copaiba, iodide of potassium, etc.

Or take the case of metallic substances, with their different powers of producing irritations of different durations. The time of duration of the irritation of mercury, for instance, is not the same as the time of duration of the irritation of arsenic. When either of these produces an ulcer, and the poison afterwards goes, then the effect and course of the ulcer will be the same; but in the presence of the poison there is a difference in the inflammation, which is due to the extrinsic factor of it, and so far the inflammation is a specific inflammation.

Again, take the case of inflammations arising from irritants that arise within the body, as lithic acid, the irritant in gout, or lactic acid in rheumatism (if it is so). In these cases the factor present in the whole blood is foreign to the tissue of the joint inflamed, the cartilage, or fibrous tissue respectively. This foreign factor creates and governs the irritation and inflammation into a very peculiar course in these instances. Here, then, though in a more restricted sense—intelligibly restricted, not confused—the inflammation is specific. We no longer have a foreign external thing as to the whole body, but we have what is foreign and external to the texture whose normal actions are excited; in that texture the lithic acid is an extrinsic factor. The same is probably true of many skin diseases, such as psoriasis, etc., which are probably caused through an irritation of the skin by a factor produced in the body during abnormal assimilation, after the manner in which pyæmic contamination of the blood will sometimes induce a rose rash upon the skin.

In all these cases, which I give as types of others that will easily occur to you, the tissue of the part that shews the irritation is thrown into the irritation by a cause foreign to the tissue. The inflammation takes its peculiarities from the degree of irritation and the duration of irritation which the foreign cause is able to exert. These inflammations, thus rendered peculiar by foreign causes, make one group of peculiar or specific inflammations; we will say they are *extrinsic specific inflammations*.

But besides this kind of variations in inflammations, there is another vastly important set of varieties which we must see as wholly different in their nature—I mean the intrinsic specific varieties.

It appears certain that the tissues of different persons shew different powers of healing when they are wounded in an ordinary accidental way. There are some persons in whom particular organs or systems of organs shew a reaction to accidental irritations which differs in its nature from that excited in the generality of people by the like irritations. Take as an example the glands of scrofulous people. Some, at least, of the cases of scrofulous glands take their nature from the original and inherent peculiarities of the glands in these people; their glands are ill-organised, and hence are unusually vulnerable, and when thus easily an inflammation is aroused in them it is slow to requiesce. The disease is pertinacious. The same is very probably true of the joints and skin in persons prone to white swelling, or lupus, etc. In these cases the peculiarity which makes the inflammations to differ from common inflammations is not due to any extrinsic source, but is due to an intrinsic difference in the part inflamed. We will say they are the *intrinsic specific inflammations*.

Now, it is very true, unfortunately, that we cannot always say whether it is to an extrinsic or to an intrinsic cause that the particular inflammation owes its peculiarities; but this is not because such cause is not either intrinsic or extrinsic, but because we have yet to discern which it is; and I think the method of view I am proposing to you has the advantage of clearly putting this inquiry before the mind.

Such, then, are the two kinds of specific inflammations; while simple inflammations are those in which the tissues react *naturally* to *indifferent* causes of irritation—that is, react according to an assumed standard of legitimate reaction to causes which do not bear in themselves any peculiarities which give to the irritation a peculiar and constant course.

From a Surgical point of view, a common wound in a healthy person will serve for a type of non-specific inflammation—the knife being the indifferent extrinsic factor, and the laws of growth and nutrition of the elements wounded the natural intrinsic factor; and such are the Surgeon's only simple inflammations. But I have shown you that the inflammations of the viscera acquire many varieties of character and course through the varying natural reactions of their several components, while they are yet without any *specific* peculiarities.

Looking back over what we have seen of inflammation, and considering its relation to tissue in all its stages, we may shortly sum up a belief thus:—In tissue we have—(1) parenchyma, (2) nerve, (3) blood, (4) interstitial fluids (continuous with lymph stream).

The interstitial fluids are continuous with the blood by their derivation from it, and by their entry again into it, through the lymph stream, of which they are the commencement. They form the true nutritive circulation, which arises from the capillaries and returns into the veins, as anatomy shews.

The parenchymatous elements are all continuous with the nerves. This is an important proposition to lay down; and though it is not certainly true for all tissues, yet there is a growing mass of evidence which I think must even now create conviction, and I believe will spread until it reaches proof. I need only refer you to Stricker's volume just put into your hands by the new Sydenham Society. In it you will see the results of observation, believed to shew that nerve fibrils end directly in gland cells, epithelium cells, muscle fibrils, etc. I am satified that this is the truth. Every solid tissue element is only less nervous than nerve; and nerve consists, if I may so speak, of elements elected to represent the nervous powers of the several elements for the common good, and not of a peculiar thing with wholly new and special properties. To the several elements within the body, nerve is the organ and expression of their relation, that relation being *in* them, and *conveyed by* the nerve; so that nerve and parenchyma are on their part one, as blood and interstitial fluids are on their part one; and the organisation of the solids is to govern the course of the fluids—the formed to govern the unformed.

And so any irritation of tissue elements is already, as to the solids, a nerve-muscle act. It cannot be limited to the cells in the part; these are continuous with nerve, and so with

ganglion cell and muscle. And it is also an act of attracted fluxion in the fluids. The latter are governed and determined by the mechanisms of the former, which the solids compose to direct the fluids into proper course; so that the action in the fluids is most naturally viewed as secondary to the action in the solids. This action in the solids, beginning in excitement of the parenchyma cells, runs through the nerve in continuity, on through the ganglion cell and down the motor nerve to the vessel's muscle, which it directly or indirectly causes to relax. In this way we have, from the greater stream in the relaxed and wider (and hence thinner) vessel, a freer escape of nutritive fluid into the parenchyma; and this "effusion" may be all that results from an irritation which is of a certain low intensity; the accompanying augmented activity in the solids themselves may show itself only in slight swelling of the elements (acute œdema); but with a somewhat greater intensity of the irritation the solid elements shew greater activity, so that whatever processes are normal in the part are carried on in excess. If the production of mucus, an excess of mucus is formed; if epithelium, an excess of epithelium, as in glands, this excess being deformed more and more, according to the degree of irritation, until the round form of "exudation" or pus cells is reached (catarrh)—a pus from surfaces which is less significant than that formed in the next degree of irritation in the connective elements. These under this degree are still apparently passive.

If the irritation be yet more severe, the normal course of nerve-muscle action from the tissue elements to the vessels becomes irregular, and at last ceases at the focus of irritation, but goes on in the circle of lower irritation, which is outside the intenser irritation. The vessels remain wide while stasis occurs in them. The natural attraction of the parenchyma on the blood ceases, and the blood corpuscles run together as if they were against dead matter. The normal actions of the tissue elements undergo a change, so that cellular elements, whose function is to multiply, cease to appear altogether, and intercellular elements, which normally remain permanent, multiply and degenerate, and a certain number of ill-formed free cells of lymph or pus remains in their place (parenchymatous suppuration). It appears certain, also, that under these circumstances of complete stasis in the vessels, with active yet degenerative reproduction in the fixed elements, there occurs a passage of white blood cells through the vessel's wall, so that some of the cells outside the vessel which appear as pus represent these out-wandered white cells. It will seem doubtful that there can be this double source of pus, but different kinds of observation seem equally conclusively to prove either. The white cells can be seen to leave the vessels in the frog's or turtle's mesentery or cornea; and, on the other hand, in the suppurating tissue around lupus sores, the cells that can be seen are far larger than white blood cells, and show gradations of form up to that of perfect connective corpuscles; so that from these and other facts it at present appears that inflammatory cells in extreme inflammations have these two sources. Such being the normal course of inflammation, it is modified by variations in the quality of the irritant and its mode and duration of action, and by the quality of the tissues in different persons, so as to prove peculiar from external or internal causes.

PHYSICAL SCIENCE AT CAMBRIDGE.—At a meeting of the Senate of the University, on Saturday last, it was resolved that it was desirable to proceed at once to the establishment of a Professorship of Experimental Physics. Financial difficulties which had stood in the way have been overcome.

INFUSIONS AND EXTRACTS.—Mr. Barnes, the chemist, of Knightsbridge, has recorded in the *Pharmaceutical Journal* a very useful series of experiments on the best mode of making infusions and extracts. He finds that "Infusions of bearberry, buchu, cascarilla, cinchona, cusparia, dulcamara, gentian, hop, linseed, rhatany, rhubarb, senega, and valerian, can be prepared in half the time ordered by the Pharmacopœia, those of digitalis and serpentaria in one-fourth the time directed for infusion; and this without resorting to any special manner of making. The extracts obtained in this series of operations are of course perfectly dry, for the most part in a spongy condition, and can be easily reduced to powder. Extract of rhubarb, as all dispensers must know, is either very soft or tough, and, when in the latter condition, is difficult to manage in pill-making; the exsiccated extract, on the other hand, is exceedingly manageable, and can be at once without trouble reduced to fine powder.

ORIGINAL COMMUNICATIONS.

ON A LOCALISED OUTBREAK OF TYPHOID FEVER IN ISLINGTON,

DURING THE MONTHS OF JULY AND AUGUST, 1870.(a)

By EDWARD BALLARD, M.D.,
Medical Officer of Health for Islington.

THE occurrence of a serious outbreak of typhoid fever in a district supposed to be under sanitary surveillance is to be regarded under most circumstances (some people would say under any circumstances) in the light of an opprobrium to sanitary administration. When, therefore, there happened in Islington, suddenly and without any premonition, such an outburst in a limited area as I am about to describe, it may readily be imagined that I was somewhat staggered. Isolated cases towards the end of the summer, dotted here and there, are what, I imagine, we all meet with, and Islington has in no year proved an exception in this respect to the rest of London. But such an outbreak as happened this year, confined nearly to one neighbourhood, I have never experienced during the fifteen years that the sanitary supervision of the parish has been in my hands. It was evident that something was seriously amiss. What was it? Was the fault mine? Had I failed to warn the local authority where warning was my duty? Had the local authority when warned neglected to interpose? These and similar questions naturally arose in my mind. An answer to them was imperative, if only for my own satisfaction. As it turns out, the inquiry which I instituted, and which from its extent and nature was surrounded with difficulties, has resulted in the discovery of a cause which it is important that the Association should be made acquainted with. The facts elicited have a bearing upon our sanitary practice, and impart a warning to health officers and to the public alike.

I have placed upon the table one of the ordnance maps, on which a circle has been described with a radius of a quarter of a mile, the centre of the circle being a spot about fifty yards to the north of the North London Railway. The line of the North London Railway cuts off to the north a little more than half this circle. It was almost entirely in this segment that the outbreak took place; indeed, I may say that nearly all the cases happened in families residing within a space which would be equivalent in extent to about a third part of such a segment. The subsoil of this part of the parish is mostly clay, in parts more or less mixed with sand. The elevation above the ordnance datum is from about 106 to about 120 feet. The district is open, with wide roads and streets, and ample space between them. With some exceptions, the district is well sewered. About half the dwellings have been erected within the last twenty-five years, some even more recently. It includes some of the best houses in the parish of Islington. The water supply universally is from the mains of the New River Company. The railway-cutting, which crosses it and forms the base of the segment of the circle mentioned, is of a depth of about thirty feet. It has recently been widened, but long before the fever broke out the exposed surface had been covered by brickwork. On the south side of the cutting is a large yard, where several hundred horses are kept; the dung-shoot is situated within 100 yards of the cutting.

Between July 3 and September 10 I have ascertained that the occupants of sixty-seven houses in this district were invaded by typhoid fever, 168 individuals having been attacked with greater or less severity, of whom twenty-six died. With only nine or ten exceptions, the families invaded were those of independent persons or well-to-do shopkeepers, and were attended by private Practitioners. Within the same period there occurred in the whole of the rest of the parish put together (the area of the parish being 3127 acres) twenty fatal cases of the same disease. I have no means of knowing all the cases that happened in the parish which were not fatal, but I have a record of attack of the occupants of forty-one houses and sixty individuals. The fatal cases are all I can enumerate with certainty. The reason of this is that, whereas, under the special circumstances of the inquiry, private Practitioners kindly furnished me with lists of cases they attended in the district specially invaded, so generally that I believe there can have occurred but very few cases which have not been brought to my knowledge, I am under no such advantage as respects the rest of the parish.

(a) Paper read before the Association of Medical Officers of Health, on November 19.

But before these gross numbers can be accepted some weeding of them is necessary. Thus, within the radius specially invaded there was one of the 168 individuals who came ill from the country, having certainly got her typhoid elsewhere, and came into the district to die, leaving 167 cases and 25 deaths to be accounted for.

Beyond the radius, in the rest of the parish, 6 of the 20 fatal cases certainly got their disease either in the country, in the City, or outside the parish of Islington. Subtracting these, we have left 14 to account for. Of these 14, 1, at least, a drain-cleaner, working in all parts of London for the General Omnibus Company, is just as likely to have got his disease out of Islington as in it. Thus we have 25 fatal cases within the radius to compare with 13 fatal cases out of the radius—that is, nearly twice as many as in all the rest of the parish put together.

I have said that the cases which are referred to within the quarter-mile radius were, with few exceptions, in well-to-do families. They occurred at a season of the year when such families habitually take a holiday trip, and it so happened that in several instances the individuals were attacked and passed through their disease in some part of the country. Some of them left London feeling ill, others were seized with the initial symptoms a day or two after leaving home. One young man, attended by Dr. Pirrie, of Aberdeen, was attacked about five days after leaving home, others after an interval of several days or longer. By communication with their Medical attendants in the country I have taken pains to verify the nature of the illness. Such cases are included in the enumeration wherever I have been able to satisfy myself that, taking the period of incubation and all the circumstances into account, it was fair and right to do so.

As happens in all similar outbreaks, the disease presented varieties in the different individuals attacked. Some suffered from mild attacks, others from severe and fatal ones; different members of the same family suffered in different degrees. In some all the features of typical typhoid were presented; in others one class of symptoms, such as diarrhœa, delirium, prostration, etc., predominated; in others the disease was so mild as to have led to its designation as "febricula" rather than as typhoid, the occurrence of other severer and more typical cases in the same family alone enabling the Practitioner to class it under its appropriate designation. I may state, however, that these very mild cases did not form more than a minority among the attacks. The fact that 15 per cent. of the attacks of persons dwelling within the radius were fatal, will show that the disease was tolerably severe on the whole, and that probably few mistakes in diagnosis were made.

The important questions are: How did the typhoid originate? And how did it come to spread over so many families?

We may take the question of its diffusion first:—The outbreak created some excitement and a good deal of speculation as to its cause. In this the local Practitioners, especially those who had the care of the sick on the spot, very naturally took part; and various suggestions were offered me, all of them valuable, as proceeding from thoughtful and experienced men, some of whom held their opinions strongly. The suggested causes of the outbreak, however, resolved themselves distinctly into four. I have been unable to add another. I will take them, therefore, in order. 1. It was suggested that the alterations made in the railway cutting were the cause of the outbreak. It was said that, in widening the way, not only had an extensive fresh surface of earth been exposed, but that old drains and sewers had been cut across, from the mouths of which miasmata had issued, which had poisoned the entire neighbourhood. By looking at the map, on which the invaded houses are marked, you will see that there was some colour for this idea, since some of them are situated very near to the railway cutting, and it was a notion very likely indeed to arise in the mind of a Medical man attending cases in these houses. But 1. however applicable such a theory may have appeared under such circumstances, it is manifestly inapplicable to explain the invasion of houses at a distance from the cutting. 2. The widening of the railway extended in both directions far beyond the boundaries of the invaded district, and yet no typhoid developed in the adjoining houses. 3. The houses first invaded—that is to say, in the first fortnight—were not specially those adjoining the cutting. The disease broke out almost simultaneously in houses distributed in various parts of the district. 4. As a matter of fact for which I have the authority of our surveyor, there was but one sewer cut across anywhere. I have marked its situation on the map. It was an old brick barrel drain, which had long been disused, and as it ran at the rear of the houses had been broken up. It was only pervious for a short distance from the cutting, and was quite dry and free from deposit, and no bad smell at any time proceeded from it. This is the result of a special examination of it by our surveyor. It will be observed, however, on looking at the map that the neighbourhood of this open drain was not that where the disease was most prevalent. On these grounds I am bound to absolve the railway works.

2. Another suggestion was that the fever was due to the effluvia proceeding from the dung-shoot of the yard previously mentioned. No doubt this shoot is frequently a source of nuisance to the neighbourhood, this nuisance arising at the time when the dung is removed by the carts. It requires more constant watching than our sanitary staff, with the multifarious duties now imposed upon it, can exercise. But I cannot admit that it was the cause of the fever, for the following reasons: 1. That only two houses situated within fifty yards of the shoot were invaded, while the bulk of the invasions were of dwellings two hundred yards and upwards away from it. 2. That, under the worst circumstances, the effluvia on removal of the dung are not perceptible to a distance of more than one hundred yards, and there only faintly and occasionally. 3. That on three sides the shoot is overhung by dwellings occupied by labourers or poor people, yet in these dwellings not a single case of fever occurred.

3. The third suggestion is not quite so easily disposed of—namely, that the several domestic invasions in the district were due to local sources of miasm developed in each dwelling attacked. Now, it so happened that the earliest cases occurred under circumstances which either did not exclude altogether the probability of the typhoid attack having been dependent either wholly or in part upon a local miasm, or in which there was a possibility that it might have thus originated. Thus, out of the first nine houses on my list of invasions, I found such conditions present in seven. I may quote them as instances. They were: Offensive effluvia in the living-room of the family, due to rat burrows communicating with an old brick drain of an adjoining house; a foul receiver at a gully in a cowyard; a dung-heap about twenty yards from the house; an offensive cess-pit and bar, used by a builder's labourers, about twenty yards from house; a broken drain within the house, emitting offensive effluvia; offensive accumulation of dust and refuse in back area, etc. So frequently were such or similar conditions met with in my first inspections that, as any one else probably would have done, I attributed the typhoid to the sources of miasm I discovered, and for a time was quite satisfied that I was correct. The outbreak was far advanced before I seriously entertained any doubt upon the subject; and the reason was, that inasmuch as the large majority of the outbreaks occurred in private families, I did not hear of more than a small number until this period, or until Medical men in the district found, by talking together, that each had an unusual number of cases on his hands, and kindly furnished me with lists. But now that my own list is completed, I find that conditions such as I have referred to would, with the utmost stretch of probability, only explain, or assist in explaining, about 37 per cent. of the domestic invasions. The remainder would be inexplicable on such grounds. It is true that in nearly every house inspected I found two unwholesome conditions present—viz., a communication of the waste-pipe of the cistern with the drain or water-closet or stack-pipe, and an imperfect trapping of the sink-pipe, in consequence of the want of a syphon trap at the bottom. But throughout the parish—I expect I may say throughout the metropolis—these faults are almost universal, and so they would not satisfactorily explain the selection of the district chiefly invaded, nor yet the selection of individual houses in the same streets, etc., leaving others untouched. Even now, with my present knowledge, I cannot altogether absolve the unwholesome conditions I have enumerated in the minority of houses from all share in the production of the typhoid attacks. Their true etiological relation to them, as it appears to me, will be mentioned presently.

4. The fourth suggestion made to me proceeded primarily from a lady, secondarily from her Medical attendant, to whom she expressed her idea. Fever occurred in this lady's family, and in four families of her acquaintance about the same time. She then called to mind that some little time previously she had changed her milkman, and, as ladies will do, had induced these friends of hers to adopt the same tradesman. *Ergo*, it was the milk. It happened that her Medical attendant, during the months of July and August, had several families of his *clientèle* down with typhoid, and, among the rest, the family of the very milkman whose wares were suspected. He wisely made some cautious inquiries, and found that out of eleven such families there were ten who were supplied from this

source; the exceptional family resided a mile and a half off. Comparing notes with other private Practitioners, the reality of a serious outbreak became obvious. Till then I had only heard of fatal cases, but now these other gentlemen began to make a similar inquiry, and there was such uniformity in the result that one after another communicated with me upon the subject. Altogether, private lists of cases were furnished to me by nine private Practitioners in the neighbourhood, marking the families supplied by this milkman—some spontaneously, others immediately on my request. At first I confess I was sceptical; I thought I could satisfactorily account for the cases, without having recourse to what appeared a rather far-fetched theory; albeit, it became the favourite one with my Medical friends, each, of course, guided by his individual experience. I thought, considering the limitation of the outbreak, and the probability that a milkman in the neighbourhood would supply a great part of it, that, after all, the association observed might be nothing more than a coincidence, strange and curious indeed, but of no scientific worth, and I did not hesitate to check gossip by saying so. When I add that now I not only believe that the distribution of milk from the dairy I have mentioned was the means of sowing typhoid in the district, but regard it as proved, it may be readily conceived that the evidence I have gathered is tolerably convincing.

The general result of an inquiry into the milk-supply of the families within the quarter mile radius into which I ascertained that typhoid fever had entered was this, viz.:—

That it occurred in the house of the milk vendor, where the business was carried on; he died: and seven other persons, members of his family, or boys employed and living on the premises, had typhoid, and one of the latter died.

That it occurred in the family of a person who dwelt in a small cottage in the cowyard, distant about 100 yards from the last-mentioned house and dairy, three persons having fever here. The first case here was in a girl, who, a fortnight before she actually fell ill, had left a situation at a public-house supplied with milk from this dairy, and since then had been residing at home. This family, the mother of the girl told me, rarely took milk, except on Sundays, being poor; but when the girl was ill, milk was given to them from the dairy. The mother herself, and subsequently a little boy, had typhoid when the girl was convalescent.

That, in addition to the two boys who had lived in the house for a longer or shorter time, two men engaged in the business, who did not live in the house, had typhoid. One of these was the cowman, engaged after the master was taken ill; the other was a young man who worked at the cowyard and carried out milk, and who took all his meals at a coffee shop supplied from the dairy, and where two families, also supplied from the dairy, had fever.

That a fifth man employed at the cowyard, and residing at home, had fever. He also occasionally had his meals at the above-mentioned coffee shop, and his tea at his mother's, who was supplied from the dairy. His family being poor, he bought no milk for them anywhere, and he was the only member of it attacked.

That another single man, residing within the radius in a wholesome house, and engaged as a coachman outside the radius, who habitually took his meals at this same coffee-house, had an attack of typhoid.

That (omitting the girl who came ill from the country), out of sixty-two other families within the district which are known to have suffered from typhoid, fifty-four, or fully 87 per cent., were constantly supplied from the dairy with the milk they required, two were occasional customers, and five only stated that they did not deal there at all. I am not quite sure that complete reliance can be placed on this last statement; certainly I doubt it in one case of the five. All five resided close to the dairy, and it is most probable obtained there, as the most convenient place, any extra milk their families required. In another instance, a girl was attacked in a family not supplied by the dairy, but it appeared that, on two consecutive days in the beginning of July, she had taken tea with a schoolfellow, who, with her mother, had typhoid a few days later, this family being supplied from the dairy. No one else in this girl's family had fever.

Confining myself now to the *fatal* cases happening in families who resided within the quarter mile radius (some of which individuals, however, were taken ill or died in the country), but excluding the girl who came ill from the country and died within the radius, I find that the total of such cases was twenty-five. Every one of the families in which these deaths occurred dealt for milk with the dairyman in question—[I include here the deaths in his own household]—only one of them was an occasional customer.

Outside the radius, in the rest of the parish, I said I had fourteen fatal cases to account for. Five of these fourteen occurred in families supplied by this dairy—that is, more than a third of them. With such facts as these before me, I had a strong *primâ facie* case against the milk; but, strong as it was, it did not absolutely exclude the idea of mere coincidence. I did not know how far the dairyman's connexion extended. I learned, however, that customers of his outside the radius, some at the distance of a mile or more, had been attacked with typhoid, and that several of them had died. What I had now to do, therefore, was to ascertain what families he actually did supply; with this information I should be able to determine the question decisively. Accordingly, I communicated to the father of the deceased dairyman the rumour which was freely canvassed both in the Profession and in the neighbourhood, and suggested that it would assist in settling the question if he would consent to furnish me with a list of his son's customers. It redounds greatly to his honour that he at once complied with my request, and expressed his desire to do everything in his power to assist in unravelling the mystery of the outbreak. I may say here, as the proper place for saying it, that he fully carried out his promise, and in doing so has earned not only my personal respect but the sympathy and respect of every right-minded person.

The result of my inquiry in this direction is that the members of 142 families were supplied with milk from the dairy in question. The district within the quarter mile radius alone must contain over 2000 families. So, after all, no very considerable proportion got their supply from this source. Out of these 142 families (which includes the dairyman's household), I have ascertained that 70 were invaded by typhoid within the ten weeks during which the outbreak extended—that is to say, half of them were invaded. This includes all the families which had deaths from typhoid. I did not go from house to house to inquire among all the customers, so that it is quite possible that other non-fatal cases may have occurred in other families whose Medical attendants have not communicated with me. But this is enough for us. Inquiring as to the source of milk-supply in all the other instances of typhoid in the parish, during the same period, that came to my knowledge, I scarcely ever heard the name of any one milkman mentioned twice.

In these 70 families there happened altogether 175 cases, of which 30 were fatal—that is, the fatality was 17·1 per cent.

Again, taking the list of customers, I have gone through my mortuary records with it house by house, and I find that, besides the thirty deaths from typhoid which I knew of, there were altogether but three other deaths in these families—one was of an infant born prematurely (from what cause I could not ascertain), one was of a person who died suddenly with fatty degeneration of the heart, and the third was of an old lady, whose death is attributed on the certificate to "choleraic diarrhœa."(b)

Probably, enough has been stated to satisfy you, as I am satisfied that the distribution of the typhoid was connected with the distribution of the milk from the particular dairy referred to. But, at the risk of being charged with heaping Ossa upon Pelion, I shall mention some other observations which add confirmation to the inference. They are interesting apart from this use of them.

1st. It is remarkable how the typhoid picked out, as it were, the customers of this dairy in particular streets and rows of houses. Thus, in one long road, and a street issuing from it, at a distance of a mile or more from the dairy, it supplied three families; of these, two had typhoid. It supplied two families in a street with about thirty houses; one suffered from typhoid; in the other died the old lady already mentioned from "choleraic diarrhœa." It supplied four families in a new neighbourhood with about seventy houses; three of these families had typhoid. It supplied four families in a crescent with twenty-five houses; all four had typhoid (in one only a single mild case occurred). It supplied four families in a row of nine houses; typhoid occurred in two of them, and, in the other two, cases of a mild febrile character (not enumerated) occurred. It supplied four families in two opposite rows of houses, altogether about sixty-seven; three of them had typhoid happen in them. It supplied four families in a square with fifty-nine houses; all four had cases of typhoid happen in

(b) There appears some uncertainty as to the precision of this return: the Practitioner who certified tells me he saw little of the case. She had vomiting, diarrhœa, little abdominal pain, and died comatose.

them, etc. And these were, so far as I can ascertain, the only cases in these several localities.

2nd. It is to be observed that there were comparatively few solitary cases in the 70 families. Solitary attacks only happened in 22 of them; and these 22 include the three individuals who alone, of all the inhabitants of the same house, had the opportunity of getting their disease from the use of this particular milk. Of the 67 invaded families in which several members were exposed to the same risk, there were, then, only 17 in which solitary cases occurred. The attacks were multiple, then, in 75 per cent. In these families, the number of cases varied from 2 to 8 in a family, the average being a little over 3 cases per family. All will agree with me that this highly multiple character of the attacks in families is a feature not commonly met with except under circumstances where all the members of a family have been exposed to a common cause.

Still, it does not follow that where multiple attacks thus occurred every case in a family was due to the use of the milk and that alone. Probably in some instances the disease, being once introduced into the house and implanting there the contagion through the discharges, spread in the family and household, as it often does under such circumstances. This was very likely the case in some of those instances where an interval of two or three weeks elapsed between the first seizure in a house and the subsequent ones. In favour of this view I may state that in one instance in which typhoid contracted from this milk was developed in the country, it spread in the family and house to which the patient had migrated. In one instance a servant went to her home in Islington ill, and her father there was attacked. I have not been able to ascertain, although I have inquired, that a similar event happened in any other instance. But if this explanation held good to any great extent, we should have expected that the multiple character would have been as strongly marked in the domestic invasions occurring late in the outbreak as in those occurring early in it. On the contrary, however, as the invasions of houses supplied with this milk became delayed, so the multiple character of the domestic attacks became less marked. Thus—

			Total cases at intervals.
In the 1st week	9 houses were invaded	32 or 3·5 per house.	
„ 2nd „	16 „ „	52 or 3·2 „	
„ 3rd „	13 „ „	36 or 2·7 „	
„ 4th „	6 „ „	17 or 2.8 „	
„ 5th „	6 „ „	9 or 1·5 „	
In subsequent weeks	18 „ „	29 or 1·5 „	
	68	175	

There was, moreover, no instance within the quarter mile radius in which two families were attacked in the same house, except where both families used the same milk. On the other hand, there are several instances in which, more than one family residing in a house (the different families using milk from different purveyors), that using the milk from the dairy in question alone suffered.

3rd. The attacks in families appeared to have some relation to the quantity of milk consumed. It is a matter of common remark that milk is more largely consumed by females than by males, and by children than by adults. Now, leaving out the young children attacked in the families supplied from the dairy, and taking those over 10 years of age and the adults, I find that, while 97 females had the fever, only 44 males had it—that is, females formed nearly 69 per cent. of those attacked above 10 years of age. I am not aware that, under ordinary circumstances, typhoid shows any such remarkable preference for the female sex. Again, out of 47 families in which multiple attacks were observed and the date of the first case determined, it occurred—

In a woman over 20 years of age . .	20 times.
„ child under 10 years of age . .	12 „
„ girl between 10 and 20 years of age .	6 „
„ man over 20 years of age . . .	6 „
„ lad between 10 and 20 years of age .	3 „

The first attack in the house only occurred in a man or youth nine times out of forty-seven. Some curious illustrations of this relation came out under the inquiries instituted at individual houses. Thus, in the family living at the cowyard, the daughter, while engaged as a nurse in a situation, alone got the dairy milk with regularity, and she was the first attacked; the second case in this house (her mother) was a month later. In a family consisting of the father and mother, who never took any milk at any time, two servants and four children all had typhoid, except the father and mother, the children commencing. In another family, consisting of mother, two servants, three girls, and a boy of 17, one of the girls and the boy took milk porridge daily at breakfast; the other girls, with the mother, took little milk comparatively. The servants, complaining that the beer was sour, asked permission to take milk instead of beer. The girl and boy who ate porridge and the two servants were alone attacked. In another family, where a daughter aged 18 and a son aged 5 years were attacked, the daughter, I was told, was a great drinker of milk, and she was attacked a fortnight before the son. In a house occupied by several families, using one privy, and where the drain-smells from an overfilled cesspool were very offensive, only one elderly man and woman were attacked. They alone drank milk from the dairy; the other families, being poor, had never any milk at all, and altogether escaped. In another family, the only person attacked was a young girl, who, being in delicate health, took more milk than all the rest of the family. Mr. Clifton also told me of a case of typhoid, which is not enumerated here, in the person of a young lady whose family was supplied by some other purveyor, but who fancied to drink daily a glass of milk from the dairy in question. No one else in the house ever took this milk, and she alone suffered.

I have very little more to add about the cause of the distribution of the disease. I have stated that miasmata of local origin played a part in the etiology of the outbreak. Such local miasmatic conditions were discovered in or about 23 out of 68 houses in which fever occurred in connexion with the use of this particular milk. This number is equivalent to 33 per cent. Now it is well worthy of remark that the houses thus conditioned were on the whole those attacked earliest in the outbreak among the customers of the dairy. Thus, of the 25 houses invaded in the first fortnight, 15 were thus circumstanced; of the 19 in the second, 7; of the 16 in the third, 1 was dirty and unwholesome; of the 8 at later periods, all were free from local miasm.

There can be little doubt that although these unwholesome conditions proved of themselves insufficient to produce typhoid in the persons exposed to them, yet that such exposure imparted a disposition to suffer from the contagium introduced into the system by the stomach.

These 23 houses had 83 cases amongst them; in only 2 of them were there solitary cases of fever. The average in the 21 multiple invasions is, then, 3·8 cases per house instead of 3 cases, as was averaged in the multiple invasions generally. And the fatal cases were 12—that is to say, the fatality under the combined influence of the milk and miasm was at the rate of 14·4 per cent.—which is lower than the average fatality. The inference being, that although the combination forced, as it were, an attack of typhoid on some individuals who probably would not have suffered from the milk alone, the attacks such individuals underwent were comparatively mild.

How did the typhoid contagium get into the milk? In considering this question we shall be considering the origin of the outbreak.

1. It is clear that it must have got into it either before it was sent out from the dairy or subsequently. The only probable way in which it could have got into the milk in its passage from the dairy to the customers is by the addition of foul water by the milk-carriers, in pursuance of a fraud upon their master. But against this supposition we have the fact that the young man who managed the dairy business—the master, indeed (who was one of the first fatally attacked)—himself carried out the great part of the milk in a cart, and also the fact that the disease, even in the first week of the outbreak, was so widely sown as to preclude the idea of such a fraud having been perpetrated unless by general concert between the master and the men. Neither will it serve to explain the fact that the family of the dairyman was itself attacked very early in the outbreak. The milk that they got is not to be supposed thus fraudulently contaminated by a milk-carrier outside the premises.

2. But, besides sending out the milk furnished by his own cows, this dairyman often bought milk for sale from other sources. Sometimes, when the demand was greater than his supply, or when two or three of his cows ran dry, he bought considerably. Was this milk that he bought and served out to his customers together with his own that which contained the contagium? I inquired where the milk under such circumstances was obtained, and the answer was, from neighbouring cowkeepers, and several that I know were mentioned to me. This was quite sufficient to clear the purchased milk from suspicion; because, if that supplied from any one of these dairies had been the dangerous milk, I should have found the principal cases of typhoid in families supplied by that dairy. Now, as a matter of fact, in my inquiries throughout

the parish into cases occurring during the whole ten weeks, I scarcely heard the name of any other dairyman mentioned twice.

3. If, then, we ask *where* the milk obtained the contagium it held, as a question preliminary to *how* it obtained it, the answer must be—Upon the premises of the dairyman. My investigation was now localised, and the question came to be—What possible sources of typhoid contagion existed upon the dairyman's premises? And now I must tell you something about their geography.

The cowhouse was situated on one side of a large open yard, communicating with a narrow lane, at the entrance of which were the stables and dwelling-house of a cab proprietor, into whose family, although supplied by the dairy with milk, typhoid did not enter. With this trifling exception there were no houses very near it; its neighbourhood was mostly unoccupied land and gardens. The cowhouse formed part of a range of stable-buildings on one side of the yard. On the adjoining side was a row of buildings used as warehouses. The cowhouse was well paved and always kept clean. There was no drain but the surface one, which conducted liquid matters along a channel to the centre of the yard, where they entered a gully opening, and passed away into the drains. The stables were drained by pipes towards the same gully, the pipe being continued into a small sewer in the lane. The dung was stored against the wall of the stable I have no record of any complaint being made at any time against these premises on the score of uncleanliness. They were always clean when I have seen them. Ten or eleven cows were kept here. At the time of the outbreak, and for a long time before, there had been no disease among them—they were a fine and valuable lot of cows. The young man who carried on the business up to the time of his illness milked them himself, and saw to their being properly kept. In the centre of the yard, the paving of which had, from the heavy traffic upon it, got a good deal out of repair, was a large heavy gully grating, which it was always believed was properly trapped, but which, on examination in the course of the inquiry, was found not to be so. Beneath it was a receiver about three feet deep, from which the drain passed. I perceived no offensive smell from it, nor can I hear of any one who ever noticed any; but on gauging it with a fork, a violent gush of offensive gas was evolved, almost explosively. On the side of the yard opposite the warehouses was a cottage of two rooms, occupied by one of the workmen, his wife, daughter, and little son. All but the man had fever. The daughter was taken ill the same day as the dairyman—namely, on July 9. This was the girl I have mentioned who had left a situation as nurse, where the milk in question was supplied a fortnight before her illness. Above the cottage was a large open iron tank of New River water. When I saw it, it was foul. It had no waste-pipe. It was used for the cows and horses, for washing vans, and for all domestic purposes by the occupants of the cottage.

The milk business, however, was not carried on here, but at premises about a hundred yards off, to which the milk was carried in the cans prior to distribution. I am assured that none of the water from the tank over the cottage was ever added to it.

The premises where the milk business was conducted consisted of a dwelling-house, covered yard, stable, and offices. The arrangement of these is shown upon the plan (*see* p. 616). With respect to the stable, I must say that it was large, airy, admirably paved with iron bricks, and always very clean. It was provided with pipe drainage beneath, the channel entering an old brick drain (B), and with patent stable traps. Prior to the outbreak in these premises I am informed that some of these traps were broken, and that the smell was very offensive, and diffused into the yard beyond, especially when a closet, used by the workmen on the premises, which communicated with this drain at the further end of the stable, was flushed. During the illness of the dairyman at this house, the new traps were put in, and I am informed there was no accumulation in the pipes. At the side of the stable was a cart-shed, and near its entrance a wooden and glass office, attached to which, on the outside, was a flap-table, above which, on the woodwork of the office, the cans used in the business were hung up. The kitchen of the dwelling-house, projecting backwards, had a window looking upon this table. The water-closet was situated in a narrow strip of yard at the rear of the kitchen. There were two receptacles for water on these premises. One was a cistern situated in the back yard. It was closely and well covered, and when examined found to be scrupulously clean. The waste-pipe did not pass into a drain, but discharged upon the surface of the paved yard. From this cistern a pipe proceeded to a tap at the side, and a little below the level of the flap-table mentioned. The other was an underground tank, situated beneath the flag-stone paving of the office against which the flap-table was erected. The water was drawn from it by means of a pump situated at the entrance of the stable from the yard. I may mention for what the fact is worth, that this pump, although in view from the office, was not in view from the window of the kitchen looking upon the flap-table. This tank, like the cistern, was supplied from the mains of the New River Company. It was constructed about sixteen years ago, and during that time no examination had been made of it. It had, however, been opened occasionally when it became dry from fixing of the ball-cock. But the time had now arrived for a thorough examination of it to be made. This examination, however, from the absence of the occupier of the premises during the convalescence from his attack of fever, had to be delayed, and it was not thoroughly examined until the beginning of November. There was no objection to this delay, inasmuch as the death of the young man who carried on the business led to the trade being given up, the cows being sold off very shortly after his death, which took place on August 12. I may mention here, again, for what it is worth, that only eight fresh houses amongst the customers of the dairy were invaded after this date, six of them in the fifteen days between the 12th and the 27th, and only two later.

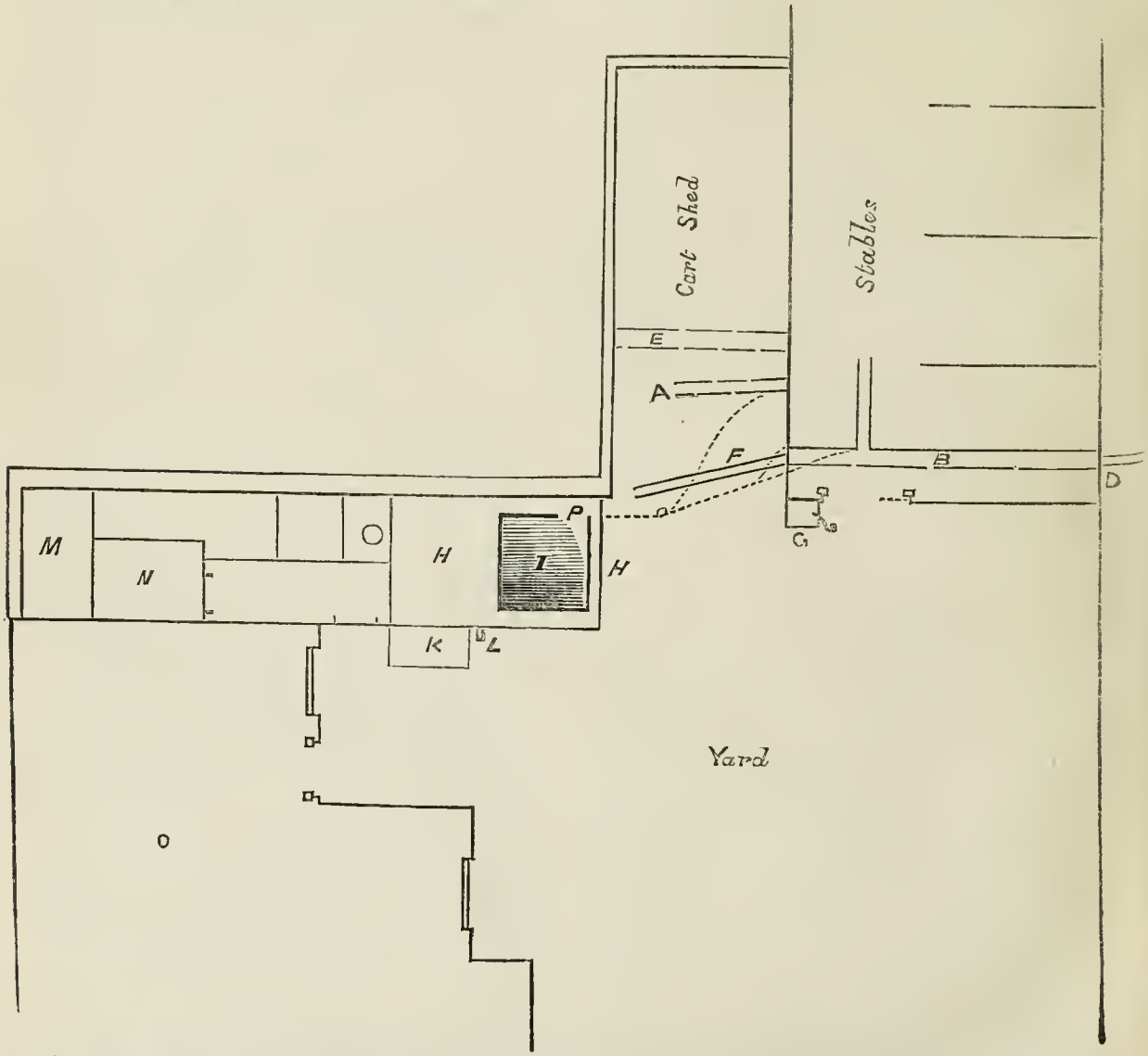
We may ask, then, which of these two sets of premises—the cowhouse and yard, or the business premises where the milk was sold—furnished the contagium to the milk? To take the cowyard first, there were present as possible sources of typhoid effluvia the foul receiver in the centre of the open yard, and the foul water tank over the cottage. I think we may absolve the latter at once, inasmuch as it is improbable that water would have been added to the milk here while there was plenty at the place of business whither the milk was to be carried. With respect to the foul receiver in the yard, I should place little value on any objection to it as a probable source of contagium on the mere ground of offensive effluvia not being noticed, so long as it could be shown on independent grounds that typhoid fever had actually been contracted by any person or number of persons from exposure to its emanations, or that it was probable that the milk had been sufficiently exposed to the chance of absorbing the contagium proceeding from it. It seems to me that any emanations from the gully would, before reaching the cowhouse, have been too diluted to produce mischief in this way; while it is understood that the only other possible exposure it could have, would have been during the carriage of the milk through the open air near it. Was there, then, any independent evidence of the gully or receiver actually giving off typhoid contagium into the atmosphere of the yard? It was a yard in which a good deal of business was carried on. Horses were stabled there, vans were washed near the gully, etc. As a fact, people employed about this yard were attacked with fever. Thus, 1st, one of the earliest, if not the very earliest case, happened in the person of a boy who was a "useful" boy about both premises—in the stables and at the cowhouse and yard. He was so ill on July 3 that he was sent home to his mother, at Finchley, where he died of typhoid on July 25. 2nd. The dairyman himself, who personally milked and managed the cows, spending much of his time in the yard, was attacked early—namely, on July 9. 3rd. The young woman at the cottage in the yard was attacked the very same day. 4th. A man who worked in the yard habitually, chiefly about the stables there and on the business premises, washing vans in the yard, etc., but who had nothing to do with the cows or dairy business, was attacked with fever early—viz., on July 7. 5th. Another young man, similarly occupied, was attacked on August 10. 6th, and lastly, a cowman, who came newly to work at the yard and to take the place of the master, who was ill, in milking and managing the cows, about the beginning of August, was taken ill with typhoid on August 27. But in none of these cases was the certainty or probability of the dairy milk having been taken excluded. It cannot be asserted with certainty that they got their fever from a contagium evolved into the atmosphere at the cowyard. In the first instance the boy lived on the business premises, and had his meals there, including breakfast and tea. In the second case the same observation holds good. In the third case the girl had certainly taken the milk habitually up to a period within that of the incubation of typhoid. In the fourth instance the man told me that he occasionally took his meals at the coffee house, or his tea at his mother's house, both supplied from the dairy. In the fifth case the young man habitually took his meals at the above-named

coffee shop, and also sometimes carried out the milk. The sixth case alone can be supposed to have probably originated in the effluvia of the yard. This was the cowman, who boasted that he always got his milk pure, for that he drank half a pint every morning early while milking the cows, and that what he used at home with his family was taken from the cowhouse direct in a bottle. I may observe here that in this case the disease was confined to himself, no one else of his family or in the house getting typhoid. But, then, as he also carried out milk from the dairy he had the opportunity of quenching his thirst from the cans, whether he availed himself of it or not. He says he never drank any water on either of the premises, as "he does not like water." Throughout my inquiry I have met with no other case of typhoid among men engaged at the yard than those I have mentioned. It appears, therefore, to me that the evidence of typhoid emanations into the atmosphere of the yard fails to be satisfactory.

This being so, we fall back upon the business premises. Here I found two possible sources of typhoid contagium—viz., the offensive emanations from the stable drains and the underground water-tank which supplied the pump. The evidence of mischief from the former is as deficient as it was in the case of the emanations in the cowyard; none of the men exposed to them having had fever except those who had been in the way of drinking the milk. And there is this additional fact, that the family most constantly and thoroughly exposed to these emanations escaped—namely, that of the horse-keeper, who actually lived over the stable, and the staircase leading to whose rooms was erected over a closet (not supplied with water) used by the workmen on the premises.

It will be observed that, step by step, my inquiry has become narrowed by the process of exclusion—the only one, as it appears to me, applicable in such an investigation as this. And so I have arrived at the *underground tank*. About this for some weeks I could learn nothing but that it was a wooden tank, constructed sixteen years ago, of three inch pine bound with iron, and puddled at the bottom with about nine inches of clay. Awaiting the time when the tank could be opened for inspection, I forwarded samples of the water for analysis to Dr. Bernays. I did not expect much to come of this, since the outbreak was then nearly over, and an analysis made in September of water which was daily undergoing replenishment would probably give very different results from an analysis made in June or July, when it might have been somehow contaminated; and the result of the analysis confirmed my expectation. It was in all respects similar to the results of analysis of the New River Company's water, as published by the Registrar-General and by Dr. Letheby—that is to say, it exhibited no special character that would indicate an unusual departure from the average purity of that water.

Plan of the Dairyman's Premises, drawn by the Surveyor of the Parish of Islington, on Scale of One-eighth Inch to One Foot.



A. Old 6-inch disused brick drain, containing slush. B. Stable brick drain, old. D. 6-inch pipe to sewer. E. 12-inch old, disused, dry, brick drain. F. Pipe from closet to B. G. Pump. HH. Office. I. Underground tank. K. Flap-table. L. Tap from cistern. M. Cistern. N. Open back yard. O. Part of dwelling-house. P. Situation of gap in tank, and hole at bottom of which rat burrow began. *Dotted lines.* Rat burrows.

It was not until the return of the family from the country that I could get the tank exposed; and what found was this:—The description given me of the tank was correct; but the woodwork had become rotten, and at one corner towards the cart-shed, had broken down to the depth, from the edge, of about eight to ten inches, forming a considerable gap in that side of the tank.(c) Between the part of the tank where this gap existed and the adjoining wall (distant about twelve inches), the earth, present everywhere else between them, was wanting, a conical hole being formed to the depth of about two feet. At the bottom of this hole, on letting down a candle, I noticed a rounded, smooth shoot with a wet clay bottom, inclining towards the cart-shed, and, on introducing my hand, I was convinced that it was a rat-burrow. A stone was raised in the direction of the cart-shed, a hole dug, and the burrow was again reached, and found to cross above a stoneware pipe leading from the water-closet towards the stable. Fortunately, at this moment the water was turned on from the main. It rapidly filled the tank, which overflowed at the gap; the water ran into the hole dug outside, and filled it to the level of about four inches above the burrow. It then ceased to rise any more, and on carrying my hand round this level, I found another burrow, by which, evidently, the water was running off. On the flow by the supply-pipe ceasing, the water sank rapidly to the level of the lower burrow, and was seen running away by that also. It sank no lower for a long time. The inference I drew was that by these burrows the water was very freely conducted away into some drain or cesspool. On taking up the paving of the yard and exploring, three old and imperfect brick drains of various sizes were discovered, into one of which the pipe from the water-closet had been carried. The other two were disused, but one of them contained some wet slush; the other, containing only a quantity of dry deposit, could not have been the conduit for the overflowing water. In making these excavations, the burrows were necessarily trodden in, but the soil was found saturated with wet up to the brick drain in the stable that the water-closet pipe ran into, and up to the old drain at a lower level that contained the wet slush. With the exception of the drain which received the water-closet pipe drain, these old drains were disused, and evidently had been disused for many years. I have marked the situation of all three upon the plan. From the appearance of the soil along the dotted lines, there is every reason to believe that it was in their direction, or by some diverging burrows, that the water ran away into the two drains marked A and B. With respect to the old drain, A, it is believed that it was once an overflow drain running into an old cesspool or ditch which is known to have once existed outside these premises, and the remains of which, beneath a collection of old oyster-shells, were discovered about June last in laying down a pipe-drain, D, for the drainage of some neighbouring houses. Prior to the laying down of this drain, the stable brick drain, B, ran straight along into an old sewer; but when, D, a six-inch pipe was laid in, it was thought right to connect the brick drain, B, with it, the owner intending at some future time to do away with B, and carry the pipe from the water-closet into D.

This being the condition of affairs, it is evident that the underground tank was, by these rat-burrows, in communication with two old drains; and it is scarcely necessary to point out that, where rats could pass and water rapidly flow away, foul gases from the drains could pass, and must have passed, to the tank. Moreover, any accidental or temporary arrest of the flow of sewage from the brick drain, B,—such, for instance, as may have occurred at the time of the alterations of the drainage of the adjoining houses—must, at the time the water flowed from the main into the tank, have filled up the drains and rat-burrows and the hole between the tank and the wall, and have caused an overflow of sewage into the tank at the gap. Either such an accident or the completion of the burrows to the tank, or the incursion of a rat carrying foul matters with him, might serve to account for the suddenness of the outbreak, supposing this water to have been used habitually for addition to the milk. However this may have been, we have here a fouled water-tank, the addition of the contents of which to milk distributed in the neighbourhood would be sufficient to account for the communication of typhoid fever to those who used it.

Is there, then, any reason to believe that this water was ever added to the milk, or that the water alone ever produced typhoid? I was assured by the men about the premises that none of them ever drank this water; it was understood generally on the establishment that it was provided for the horses, for washing the cans, and for cleaning purposes generally. I only met with one boy who drank of it, and he used it at his dinner, and whenever he was thirsty. He had fever; but then at that time he was living upon the premises, and had his meals there, with the usual quantity of milk at his breakfast and tea. He was there for a week at the beginning of August, and was taken ill on or about August 14, after he had returned to his mother's house. This boy agreed with the other men in saying that he had never seen anybody else drink from the pump. The family of the deceased dairyman also informed me that at no time was the pump used for the addition of water to the milk; "if ever any was added, it was from the tap." Certainly the tap was the more conveniently situated for this purpose, close on the right side, and a little below the flap-table. So far as their knowledge extended, I have every reason to give credit to this statement, which, moreover, has been confirmed to me independently by several of the men employed. But then it was added that those of the family I inquired of had little or nothing to do with the milk business, which was entirely under the management of the young man who died; and it is to be recollected that persons in this trade are very much dependent upon the honesty of their servants, and that the pump, although in full view of the office when occupied, was not in full view of the window in the house which looked upon this part of the yard. And in connexion with the hypothesis that contaminated water had on some occasions been added to the milk by some one is a fact communicated to me that one family while suffering from typhoid discontinued the use of the milk "because it had a bad taste, and was disagreeable;" and another person asserts that "she had several times complained to the dairyman himself that the milk when kept became stinking, not (as she said) merely sour; and also of its poorness." This, if true, must have been prior to July 9. We are dealing now with probabilities, and one point to be weighed in estimating them is the fact that the dairyman and his household were among the very first attacked with the fever. Did they use milk diluted with this water in their family? Probably they were not very particular. But, supposing that it is absolutely true that no water from the pump was purposely added by any one to the milk, we have yet left the admitted fact that the cans were washed at the pump. Is it probable that the small quantity of foul water left in them after this process would suffice to contaminate the whole bulk of milk subsequently introduced? I confess that, to my mind, this is not an impossibility. We all know how small, almost infinitesimal, an admixture of sewage will poison a well or running stream; nor is the idea of reproduction of the typhoid contagium out of, within, or in the presence of an appropriate organic material at all foreign to the prevailing opinions upon the subject. Future experience may show that milk, which has remarkable relations to chemical ferments, is a substance peculiarly adapted also to the reproduction of morbid contagia, or to the contagium of typhoid in particular. Nor do we know even now how minute a quantity of contagium is sufficient to introduce the disease into any individual. Scarlet fever has recently been shown by Dr. Bell, of St. Andrews, to have been conveyed by milk to the customers of a cowkeeper in that place, the cows having been milked by persons convalescent from the disease. I claim now to have shown, what I have long suspected to be probable, that typhoid fever may be similarly conveyed by milk. Whether I have also correctly referred the contamination of the milk in this case to its source in contaminated water, others are better judges than myself. At all events, I have spared myself no labour in the investigation, which, if it has resulted in nothing else, has demonstrated one of the dangers connected with the mode in which the trade in milk is conducted in this metropolis.

(c) I was not present at the moment the stone covering the tank was raised, and I was told that this piece of the woodwork broke down during the act of raising the stone. I merely describe what I saw. From the very damp condition of the wall opposite the gap, I am satisfied that this explanation is not to be trusted. Water had certainly run out of the tank at this spot for a considerable time.

DONATIONS, ETC.—"G. H." has given £1000 to the East London Hospital for Children.—Charles Thomas Holcombe, Esq., of Valentines, Ilford, Essex, bequeathed £1100 to the London Hospital (£1000 for a convalescent establishment, and £100 for general purposes), and £100 to each of the following, among other charitable institutions, viz.:—St. Mary's Hospital, Paddington; Royal Free Hospital, Gray's-inn-road; King's College Hospital; and Hospital for Diseases of the Chest, Victoria-park.—Mrs. Lavinia Schneider, of Bryanstone-street, Portman-square, bequeathed £250 to St. George's Hospital.

A CASE OF BROKEN NECK.

SPINAL CORD ALMOST SEVERED AT LEVEL OF THIRD INTERVERTEBRAL CARTILAGE.

By J. FAYRER, M.D., C.S.I., F.R.S.E.
Professor of Surgery and Senior Surgeon, Medical College Hospital, Calcutta.

B., a stout, healthy-looking Hindoo labourer, aged 25, was admitted into the Medical College Hospital on June 17, 1870. Five days previously he and another man were carrying a heavy beam of wood, the ends resting on their heads. His companion suddenly let one end of the beam drop: his end then fell, and in doing so, gave his head and neck a violent wrench backwards. He fell to the ground immediately, completely paralysed below the neck. In this condition he was carried home, where he remained until the fifth day, when he was brought to the Hospital. The abdomen was tympanitic, and the bladder fully distended with urine. He says that until the fourth day he had made water, and his bowels had acted, but not since. His statements are probably not very reliable. His bowels may have acted, and urine may have dribbled from an over-distended bladder. His pulse was regular and firm, about 80; tongue moist, but coated; temperature apparently natural; sixty-four ounces of urine were removed by catheter, and an aperient draught ordered by the admitting officer. Respiration was diaphragmatic. His face wonderfully little indicated his grievous condition. There was a depression in the cervical region, but no crepitation or lateral displacement could be detected. He could move his head and neck, and spoke very clearly, describing how the accident occurred. Nearly all below the clavicles sensation and motion were gone. The point of a sharp instrument drawn round the body was felt across the upper part of the pectorals and deltoids in an irregular line, on the back it descended rather lower. He seemed painfully conscious of his miserable condition, and begged for relief.

Towards the evening his temperature rose to 104°. This varied from 101° to 104°, until June 22, when it rose to 104·5° in the morning, and 106·5° in the evening, and on the 23rd, the day of his death, to 107°.

The pulse varied, but never exceeded 85. The respiration was hurried, being 36 to 40 per minute. At first a saline diaphoretic was given, and the urine was 100 to 110 ozs. daily. This gradually diminished to eighty ounces daily. The saline was discontinued. Morphia was given, to soothe the pain in the neck and allay the restlessness. He took soup and other fluid nourishment, and remained quite sensible until the morning of June 21, when he became delirious. The breathing became more difficult, from accumulating mucus in the bronchial tubes and the upward pressure of the distended abdomen. He sank at 1·20 a.m. of June 23.

The urine was regularly drawn off; it remained clear, but was very watery. Sp. gr. 1010—neutral; neither excess of phosphates nor mucus, neither albumen nor sugar. There was persistent partial priapism.

Autopsy.—The body, that of a vigorous, muscular man. Viscera were healthy, except that the lungs were hypostatically congested, and the tubes full of mucus; all the other organs, whether thoracic or abdominal, were healthy. On examining the spinal column, it was ascertained that, in the violent backward wrench, the third intervertebral cartilage had been torn across, or rather torn away, from the upper surface of the body of the fourth cervical vertebræ. The laminæ of the third cervical vertebræ were broken, and depressed upon the cord. On removing the medulla spinalis and its covering, there was no apparent injury, but on laying open the theca a small spot of coagulated blood was found corresponding to the fractured laminæ, and just above it the cord had been compressed and softened, practically cut in two. This was very evident on pouring a gentle stream of water on the cord; it washed out the softened nerve substance, leaving a deep groove, as though a cord had been tightly tied round it. This injury was exactly beneath the depressed portion of the laminæ, and must have been caused by their edges.

This case is interesting both in a physiological and pathological point of view.

The instances, I believe, are very rare in which men have survived such accidents more than a few hours. In this case the patient lived twelve days after the injury.

It is impossible to conceive anything nearer to instant death than this man must have been on receiving the injury. The spinal column was compressed, physiologically severed, just below the origin of the fourth cervical nerve, as the third vertebra, with its intervertebral cartilage, was torn from the upper surface of the fourth.

The phrenic nerve must then have been seriously compromised, as its third origin from the fifth cervical nerve was thus severed from the two other origins, and it is difficult to believe that the fourth cervical nerve could altogether have escaped, as the injury to the cord was close to where it is given off, and if so, the chief origin of the phrenic must have been much interfered with. With this damaged internal respiratory nerve, and with such feeble aid as it received from the muscles descending to the upper part of the thorax, and supplied by nerves given off above the fourth cervical, life was sustained for twelve days. Death occurred on the twelth day, from exhaustion and gradual failure of the respiration. The paralysed abdominal and thoracic muscles, unable to resist the pressure of the gas-distended intestines, and the diaphragm pushed up into the thorax, with the rapidly increasing congestion of the lung, and accumulating mucus in the bronchial tubes, soon terminated his existence, though not until long after the time when such cases usually terminate fatally.

His sufferings, notwithstanding the complete paralysis below the neck, were great, and his vivid consciousness of his distressing condition was not the least painful part of them. He was for some days peculiarly intelligent, and no one would have supposed, from the appearance of his face, that his state was one of such perfect death in life. Towards the last, as the blood became imperfectly aërated, and his energies exhausted, he became delirious, and was unconscious when death occurred.

Calcutta.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

OPERATIONS OF EXCISION OF THE KNEE AND REMOVAL OF CYST FROM BREAST BY MR. SYDNEY JONES—OTHER CASES OF JOINT EXCISION IN THE WARDS—SKIN-GRAFTING.

We saw Mr. Sydney Jones operate on two patients in this Hospital on Wednesday, November 16. The first case was that of a middle-aged woman with disease of the knee, for which Mr. Jones excised the joint. The incision was the usual one, and the disease not extending deeply in the ends of the bone, only very shallow portions of these were removed. The essence of the disease was found to consist of two small bits of necrosed bone lying in cavities in the head of the tibia, the cartilage being also eroded, and the synovial membrane taking part in the mischief. All the bleeding points were secured by torsion—free torsion, short of twisting off the ends, being employed—and when all bleeding was thoroughly arrested the parts were brought together, the limb arranged on a straight iron back-splint with foot-piece, and the wound sewn up closely with silver wire. A useful addition to this splint, when employed in such cases, has been suggested by Mr. Croft, and is in common use here. It consists of a piece of sheet lead placed under the knee in the portion of splint where the sides are usually cut away, and it serves as a very convenient support to the part, while at any time, when it is desired to get at the wound for rearranging dressings, etc., the lead is simply folded aside, to be brought up again when the dressings are replaced. These consisted, in the present case, of a fold of lint smeared with ointment placed behind the knee, while a piece of lint soaked in carbolic oil was laid over the wound, three or four layers of lint were placed over this, and a bandage covered the whole. Within half an hour, however, a dresser brought word that the wound was bleeding, so the torsion—careful as it seemed to us—was not wholly effectual. Nevertheless, torsion seems to be fast superseding the ligature at this Hospital, although it is only quite lately that vessels of first magnitude have been trusted to it. We saw in the wards a man whose leg Mr. Croft had amputated—employing torsion to all the bleeding vessels, including femoral artery and vein; and we were told of another case in which the same Surgeon, amputating the arm close to the shoulder, had twisted both the artery and vein with good result. The only "antiseptic" used in the knee case was a strip of lint dipped in carbolised oil; but the carbolic acid

method of treatment has been carried out pretty completely here, "and is still now and then employed in suitable cases," we learned. This seems to be a not very uncommon experience in the London Hospitals. The method seems to have been often tried by Surgeons naturally surprised and delighted at the success attending the treatment in Professor Lister's hands; but it does not appear to remain long in favour. Cases do well—nay, do very well—under it, but they also occasionally do badly. Thus, many good cases of compound fracture have healed with rapidity under this treatment at St. Thomas's Hospital, but one or two have resulted in the pent-up pus infiltrating the cellular tissue a long way up the intermuscular planes; and as exceedingly good results are not wholly unknown with the routine treatment, it comes to pass here, as elsewhere, that most of the elaborate detail of the method has been quietly laid aside, and a compromise effected by the oiled lint laid over the wound—a step apparently supposed to be a gracious acceptance of a certain amount of truth in the germ theory, whereas it is clearly wholly useless as any antiseptic safeguard.

The other operation case was that of a woman, about 40 years old, who had had a cyst in the right breast for five years, the result, as she said, of a blow in that region. The swelling was of an unmistakable character, the size of a hen's egg, imbedded in the breast close above the nipple. Mr. Jones had twice tapped it, and once injected it with iodine, but the swelling remained, and as it seemed to be increasing and causing pain, he now proceeded to dissect it out, first tapping it and bringing away some clear, straw-coloured fluid. The cyst was thin-walled, and contained at one point a commencing intracystic growth, in the shape of a broad-based papilliform projection, half as large as a filbert. Torsion was employed in this instance also. Mr. Jones remarked that the case was peculiar in the persistence of the cyst after the tapping and iodine injection, measures which he had generally found sufficiently useful in such cystic formations, without the necessity of extirpation.

We saw two cases of skin-grafting for large ulcers, under Mr. Le Gros Clark's care. One of the ulcers was nearly healed over, but in the other a small graft, planted on October 1, had only increased to the size of a shilling during the seven weeks, although the ulcer was covered with florid, luxuriant granulations—a rate of growth certainly not so rapid as has often been lately noted in these cases. There are a good many cases of excision of joints in this Hospital just now, and all making fair progress towards recovery. Amongst Mr. Le Gros Clark's patients is a lad, aged 14, whose knee was excised on July 28. He has now a good firm knee, the wound well united, with no remaining sinus, and he walks about with a light leathern splint, moulded to the limb, and strapped above and below the knee.

Mr. Croft has a lad, aged 12, in whom he excised the right knee, on August 7, for necrosis of the external condyle of the femur, leading to abscess in the popliteal space and disorganisation of the joint. Here, too, there is now firm union. There are, indeed, two small sinuses, but these are well up on the side of the femur and out of the way of the leathern splint which has been fitted to the limb. Mr. Croft has another boy, aged 8, in whom the same operation was performed fourteen months back, but with a less favourable issue, for the wound never fairly closed, and it was necessary to remove necrosed bits from the head of the tibia five months later. After this, the child was sent to Margate, where he remained during the summer, and was recently sent back to the Hospital for re-excision or amputation; but Mr. Croft finding all the sinuses on the inner side, opened up this part, and removed diseased bone as high as the epiphysial line. The wound is now fast healing.

Another lad, aged 14, had his knee excised by Mr. Jones a month since for synovial disease, not involving the bones. The wound is now looking well and mostly healed, but of course the limb is still kept completely at rest.

Mr. Simon has three hip excisions under his care. The first, a boy, aged 14, from whom the head of the femur was removed and the acetabulum freely gouged away for hip disease. The lad is now doing well, the limb being kept on a bracketted long splint. The second is a boy a year older than the last, in whom the same operation was performed on August 14 last, and there seems now to be good firm union. The most interesting of the three, however, is a young man, in whom Mr. Simon has excised the hip-joint from the inner side of the limb. The operation was done on July 27. The abscess connected with the joint-mischief having pointed on the inner side of the limb, the opening was enlarged for exploration, making a wound 1 inch and a half long along the inner edge of Scarpa's space, close to the groin. Through this limited incision a long narrow saw was introduced under the femoral vessels, and the head of the femur removed, the acetabular disease being gouged away in like manner. The wound is now firmly scarred, and the patient seems to be doing quite well.

CHARING-CROSS HOSPITAL.

OCCLUSION OF THE POSTERIOR NARES: A CLINICAL DEMONSTRATION.

(By ALEXANDER SILVER, M.D., Assistant-Physician to the Hospital.)

THE patient, gentlemen, I may tell you, is a woman, long the subject of constitutional syphilis, who from time to time has been under treatment for various forms of tertiary symptoms; but, like too many of her class, as soon as she feels herself relieved, she ceases to attend, until driven back by some new phase of the disorder. She now has, you will observe, a large gummy tumour in the neck, which has ulcerated, and threatens to slough in the centre. That, however, is not the feature of special interest connected with her case. If you cause her to open her mouth, and examine the after-portion of the cavity, you will be struck with what, at first sight, seems the entire absence of the soft palate; but, on closer examination, you will detect it adherent to the posterior wall of the pharynx, the only portion not so adhering being the uvula and a small part of the palate on either side of it. The uvula, also, seems to adhere, but that is merely due to the mucus with which it is covered, for you may sometimes see it entirely detached from the pharyngeal wall. There seems, in this case, no particular alteration in the tissues of the soft palate, nor, indeed, anything unnatural, except the adhesion; but I have sometimes seen, as the result of syphilitic ulceration, a dense web of cicatricial tissue interposed in this fashion between the hard palate and the pharyngeal wall, also completely occluding the nares. Now, this condition gives rise to certain very curious physiological peculiarities, which I shall try to elicit from the patient herself, the better to impress them on your memories.

If we ask whether she has lost the power of taste, she will tell us she has in a great measure done so; if the power of smell, she will say "Yes, completely." Why should this be so? She has had no disease of the nose to cause loss of smell; there is no interference with nerve function to cause impairment of taste. But first let us see how far the latter is affected. I ask her if she can taste a cup of tea; she says, "No, except there be a lot of sugar in it, and then it tastes sweet," but she cannot tell a cup of tea from a cup of coffee. Further, she cannot tell beef from mutton by the taste, but she can tell a piece of beef with salt from a piece of beef without salt. The salt makes the difference. One thing somewhat surprises me. She says she cannot taste beer, but, as you hear, she can appreciate the bitterness of her medicine, due to the infusion of quassia used as the vehicle for the iodide of potassium she has been taking. So, again, she can taste vinegar, and recognise an orange from a lemon by their relative degrees of sourness, but beyond this she cannot go. We have reached the limits of her capacity for taste, and, try as we like, we can elicit nothing more than we have done. And to demonstrate that she has that amount of capacity, and that amount only, we shall try two simple experiments. I place a drop or two of this fluid on the back part of her tongue. She says it is hot, but can tell nothing more; nevertheless, as you may satisfy yourselves, this is tincture of assafœtida. The spirit has made its impression on the nerves of ordinary sensation, and produced a feeling of warmth; but the disgusting flavour of the assafœtida has remained unperceived, though abundantly perceptible. Now, again, I give her a little of this liquid, and tell her to swallow it. This she does, and she says it is peppermint; but it is chloric ether. Here we have a slightly more complex problem to solve. The chloric ether will give rise to two impressions she is able to appreciate—viz., heat and sweetness; but these are precisely the two people in her grade of life are accustomed to associate with peppermint. To her the marked distinction between the flavour of chloroform and that of peppermint is as if it were not. And thus, you see, we can elicit evidence of the existence of four simple tastes—salt, sour, sweet, and bitter. Anything beyond that is mere inference, as in the case of the peppermint.

Let us next try to elicit the cause or causes of these curious phenomena. If we look at the woman's mouth, we see nothing abnormal beyond the adhesion of the palate already referred to. The hard palate, it is true, is dotted over with little gummy deposits, portending future wee, no doubt, but incapable of

interfering with the sense of taste. Were the back part of the mouth covered with a dense cicatricial tissue, we might fancy that its density might interfere with the perception of bodies but little diffusible; but here there is no such structure, and ether and chloroform are unperceived alike with mucilaginous substances. There is no help for it; we must fall back on the occlusion of the posterior nares as the cause of interference. We must allow that such closure can prevent the perception of all flavours and of all compound tastes except those made up of the four simple elements—salt, sour, sweet, and bitter. Nor this alone, for even these may be blunted; for the woman tells us it is only when there is a lot of sugar in her tea she can taste the sweetness, whilst the bitterness of beer she cannot appreciate.

But her power of smell is utterly gone, whilst that of taste is only depreciated. The reason is not far to seek. What does a man do when he wants to smell a flower or a perfume? He sniffs at it—that is, he takes through his nose a sudden powerful inspiration which may bring the odoriferous particles in contact with that portion of the nasal tract devoted to special sense. But here there is no means of creating that current; the posterior nares are closed, the respiratory tract is through the mouth, and the air in the nostrils is currentless. Were an odoriferous body introduced within them, smell would still be found to exist; but that peculiar compound of smell and taste called flavour, or the sensation due to stimulation of the upper portion of the pharyngeal plexus, is gone.

WORCESTER GENERAL INFIRMARY.

CASE OF OVARIOTOMY—RECOVERY.

(Under the care of Mr. WALSH.)

[Reported by Mr. CHARLES E. HARDYMAN, House-Surgeon.]

A. S., aged 29, married, mother of four children, admitted April 16, 1870. Has been gradually increasing in size abdominally for last year. Commenced on left side. She is now of immense girth, and breathing is entirely thoracic.

Was tapped April 21, and eight and a half gallons of straw-coloured fluid drawn off. Ovarian disease was fully diagnosed, and as she rapidly filled again, an operation was proposed, to which she willingly consented.

On May 21, Mr. Walsh performed the operation in a private ward. The sac was adherent a great deal anteriorly to parietes. These adhesions being overcome, it was tapped, and the tumour turned out. The pedicle, which was long and flat, was secured by whipcord, cut short, and returned into the abdomen. Some blood had to be sponged out of the pelvis. The edges of the wound were brought together by silk sutures. She rallied well from the chloroform, but sickness came on towards evening. Ordered ice to suck, and liq. opii sed. mxx. per rectum. Pulse 88.

22nd.—Sick a good deal in the night; no pain; pulse 96. Ordered liq. opii sed. mxv. in beef-tea per rectum, 4tis hôris.

23rd.—Still sick at times, and hiccough came on towards evening. Ordered iced champagne, which relieved her a little. Pulse 140. Beef-tea and brandy per rectum.

24th.—Hiccough continues with sickness. ℞. Creosote mj. c. mucilage ʒj., 4tis hôris. Wound looks healthy; greater part of it healed. Pulse 144.

25th.—Better. Not so sick. Beef-tea and milk per rectum. Pulse 126.

26th.—Wound suppurating a little at upper part. Pulse 120.

27th.—Unable to retain nourishment per rectum. Still a little sick. Ice with brandy to take.

28th.—Bowels relaxed. Chalk with creosote given.

30th.—Better. Able to take milk and beef-tea.

June 2.—Going on well. Bowels still relaxed. Small swelling forming at umbilicus.

7th.—Abscess punctured at the umbilicus, and about two ounces of pus escaped. Pulse 110.

16th.—Wound quite healed; no sickness; can take light food well. Wine ʒiv. ordered.

From this date she rapidly improved. The sickness returned a little, but was relieved by creosote. She also had tinct. chiratæ for her bowels, which continued a little relaxed. Her pulse came down to 80, and she gained strength. The wound again suppurated a little, but healed soundly in about six days, and she left the Infirmary quite well and strong, August 27.

The cysts weighed (after the largest had been emptied) nine pounds. There were several small ones, consisting of honeycomb structure, and containing glairy gelatinous fluid in the interstices.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 26, 1870.

PROPAGATION OF TYPHOID FEVER AT ISLINGTON BY MILK.

On Saturday evening Dr. Ballard read a paper before the Association of Medical Officers of Health, remarkable for the novelty and gravity of the facts it disclosed, for the wonderful acuteness and patience used in tracking them out, and for the precision and clearness with which the various links in the chain of evidence were connected. No wonder that it was listened to with breathless attention, and received the enthusiastic applause of the members present. The President compared it to the gradual unfolding of some harrowing mystery in a tragic drama, and Dr. George Buchanan averred that he had never met with a closer and more ably constructed piece of Medical logic. The paper was by acclamation ordered to be printed, and circulated *pro bono publico*. Meanwhile, as we have been able to present it entire to our readers, we will venture on a short summary of its contents.

That typhoid fever should be propagated through the medium of contaminated milk is a horrible idea. It implies unsuspected dangers to the helpless part of the population in the commonest and most innocent article of food; and what adds to the horror is the fact that many Physicians are in the habit of ordering milk largely as the diet of typhoid patients, who might thus be imbibing fresh doses of poison in the guise of this blandest and simplest of food.

The facts which Dr. Ballard made out are shortly these. Typhoid is, as is now agreed, propagated by sewer poison. Now, there was on the premises of a certain respectable milk-dealer at Islington an underground wooden tank, supplied from the mains of the New River Company. This had not been opened or inspected for years. When opened at Dr. Ballard's desire, some inches of one side were found decayed or destroyed by rats. This allowed the water to flow over into a hole in the ground, evidently scooped out by rats, and leading to certain underground rat-burrows, by which, when the tank was filling, the water flowed into some old brick drains and water-closet drains, close by. Through these underground channels there was free communication between the tank and the sewers; not only could water run away from the tank into the drains, but foul gases from the drains were sure to pass back into the tank; and in June last an alteration was made in the drains, during which they were obstructed, so that there would be a reflux of the overflow water from these drains and rat-burrows back into the tank. It is a significant proof that this did happen, that at least two families shortly afterwards complained that the

milk "had a bad taste," and that the milk when kept became "not merely sour, but stinking." It is certain that the milk-cans were washed out with water from this tank, and a shrewd suspicion may exist that some of it was mixed with the milk; but, if so, it must have been done by the men without the master's knowledge; because if ever water were used for this purpose it was taken from another cistern, which also supplied the house, and the tank water was intended only for washing and stable use. Given, then, milk poisoned with a small dose of sewage, we find that the milkman, his family and servants and customers were very shortly afterwards affected with a peculiarly fatal typhoid fever; and the connexion between the milk as cause, and the fever as effect, is shown by the fact that the fever was confined virtually to those who drank this milk. The Medical Practitioners of the neighbourhood soon became aware of the existence of an extensive and fatal epidemic in a limited district in the healthiest part of Islington. Of course, all the obvious and usual causes were first suggested, inquired into, and dismissed as untenable. The exposure of new ground in widening the railway, the nuisance of a huge dung-shoot, and the existence of foul drains in houses, were all accused in turn; but it was the milk distribution alone which was proved to be coextensive with the fever. Dr. Ballard ascertained that 142 families, including the milkman's own, formed the "milk walk" or *clientèle* of this dairy. Of these 142, it is known that 70 families were invaded by typhoid in the ten weeks during which the outbreak lasted. In these 70 families were 175 patients, of whom 30 died—a mortality of more than 17 per cent. It was remarkable to see how the typhoid picked out the families supplied from this one dairy, and avoided all the rest. Wherever the fever appeared, it did not attack one, but several members of the household. In certain families, where particular members took no milk, they escaped, whilst others suffered. The women and children, who take most milk, suffered in greatest proportion. A young lady who had a tumbler of this milk daily, whilst the house was supplied from another source, was the only victim in the house. The dairyman himself, and his workmen, who, of course, took the milk freely, were amongst the earliest victims—for this, like other outbreaks, became milder as time went on, and ceased when the business was given up and the cows sold, some time after the death of the proprietor. Meanwhile, the disease was mainly confined to a circle with a quarter of a mile radius from the dairy, whilst the rest of the extensive parish of Islington was virtually free. We have just given the gist of the facts set forth in Dr. Ballard's very able and closely-argued paper, to which we must refer for a fuller narrative. Meanwhile, the notion of *death in the milk-pail* is as disagreeable as it is unexpected.

ANOTHER AMALGAMATION SCHEME.

At the last meeting of the Medical Teachers' Association, a scheme was proposed for discussion by Mr. Christopher Heath—crude, it is true, yet containing within it the germs of something great. Briefly, his scheme was this: There are now in London eleven Schools of Medicine, with very various numbers of students, from Guy's (the largest) to Westminster (the smallest); but of these two are pre-eminent in numbers—Guy's and St. Bartholomew's. The others are grouped geographically into three divisions—the eastern, comprising the London Hospital only; the northern, comprising University College, Middlesex, and St. Mary's; and the southern, including King's College, Charing-cross, Westminster, new St. Thomas's, and St. George's. These he would have united for scientific or systematic instruction, and for clinical teaching. There seemed to be floating in his mind a stately vision of a grand central school, where the best men were to hold the chairs, and receive ample remuneration for their trouble; existing teachers were to be made tutors, instructors in special departments, or clinical teachers only. The student would year by year pass from one Hospital to another. The scheme is a fine scheme, and may contain the germ of something. Meanwhile, it is impracticable, in the face of jealousies and conflicting interests.

But let us look at the matter more closely—let us try to eliminate the germ, if possible. It is admitted on all hands that the present system, whether bad or good, is not the best attainable. We err for want of consentaneous action; instead of playing into each others hand, each man plays into his own. And this is true, not only of different schools, but of different teachers; were there such a division of labour that each man did what he could do best, the gain would be great. Then, again, the pupils are not well divided; in the large schools one teacher has too many, in a very small school the teacher's energy is wasted on a few. There are not too many teachers (probably there are too few), but their work is unequal. This is a disadvantage not readily obviated.

What, then, can be done if mutual jealousies interfere with such a scheme as Mr. Heath's? It is worth while inquiring whether any mode of overcoming the difficulty be possible. We think it is, and within our reach, too. It seems to us that this great central school would be a doubtful experiment; for from experience we know that where systematic is widely separated from clinical training, one or both must suffer. At Glasgow, for example, it has been found necessary to build a new Clinical Hospital near the University buildings, because students would not in bad weather traverse the distance between the two. Now, it has always been a boast—and a sound and good one, too—that London schools turned out good practical men—men trained at the bedside: but then the men have received all their instruction within the walls of the Hospital. A man once arrived at the Hospital has no occasion to stray beyond its boundaries until the work of the day is over; but if he has to travel from place to place, our principal session being a winter one, either the great school or the Hospital will have the prior claim. We shall have theorists or men devoid of theory, and consequently unable to deal with a case they have never seen before. But this may be avoided. We neither want the theorist who cannot apply his theories nor the practical man who has got no theories at all. There are four subjects which should be taught outside a Medical school; these are—elementary chemistry, physics, botany, and comparative anatomy and physiology; and these are best taught apart from any School of Medicine, and best learnt before a student enters on the study of practical Medicine and Surgery. When once a man has begun the strict study of his Profession, let there be no inducement to withdraw him from his Hospital. There are, however, two subjects about which there may be some dispute; these are anatomy and physiology—should they belong to Hospital or extraneous teaching? Perhaps they might belong to both; but as anatomy is almost wholly learnt by dissecting, means for pursuing this should, as now, be found near at hand at every Hospital. Both are subjects of strictly Professional study, only to be undertaken after a man has fairly embarked on a Medical career; but although no student should be allowed to act as Surgeon's dresser whilst dissecting, there is no reason why his eyes and his ears should be closed, or himself excluded from the wards, whilst this is going on. As to physiology, there has been a good deal of misconception in the minds of many. It has been argued that, to teach physiology aright, a man should devote himself to the study of physiology and to its teaching, and to these only; but this is hardly true. The ordinary Medical student should be taught physiology as an applied, not as a pure science; and that is best done by a Physician well skilled in physiology. The pupil should be made to see and understand the important bearings this subject has to Medical practice at every step of his career. It is true that, for the higher grades of the Profession—say the F.R.C.S. or M.D. Lond., or M.R.C.P.—a man ought to be instructed in

physiology as a science, and means should be provided for this higher culture; but all men need not be forced to undertake it, and for the majority, physiology as now taught by the best teachers is amply sufficient.

To us, therefore, it seems that the amalgamation required is an amalgamation to insist on the preliminary knowledge already alluded to. Means, no doubt, ought to be provided for the cultivation of the higher branches of Medical science; but we fear no amalgamation will attain to that. But the other part of the scheme we most heartily applaud, and we are inclined to think that something may be done in the matter. Nothing could be better for the student than to pass from Hospital to Hospital, to see the different measures taken by different men to attain success in operation and treatment; and to see, also, that there is no one method so supremely successful as to overpower all others would tend to make his mind more catholic and himself more fertile of resource in any great emergency or crisis.

AN APPEAL TO THE IMPROVIDENT.

Death has lately been busy amongst members of our Profession. The columns of the *Times* record almost daily the decease of a Medical Practitioner; on some days two or three are recorded. A single line is sufficient to announce the sad event, but with what a history is that line occasionally connected. The busy, hard-working, intelligent, and good man is struck down in his prime: the victim of some fever contracted in the performance of his duty, some accident, perhaps overwork. He has lived daily by his daily toil, and has been unable to lay by anything for the wife—now the widow—and children wholly dependent on his exertions. The life is often insured, but not to an amount capable of serving effectually the bereaved family; often no such provision has been made. The man dies: poverty holds the household in its clutches, and his last moments are embittered by the thought that he has left the near and the dear to him without means of support. This is no imaginary picture, but one the realities of which have been too frequently forced upon our attention. The strange part of the matter, however, is that, at all events in London and its vicinity, there is no excuse, no necessity for it. There exists, and has existed for nearly a century, a Society which meets such cases. Any respectable qualified Practitioner within the metropolis, and to a certain extent beyond it, can by a yearly subscription of two guineas make it all but impossible that his wife and children should be left destitute. The Society has large funds, has conferred an amount of benefit almost incalculable, has stepped in and saved many who never expected to require it, and has soothed the death-bed of many a deserving and good man, untimely stricken down; and yet—is it credible? is it possible?—not a tithe of those who are eligible will accept of the proffered gift! Yes; this is the fact: the "Society for the Relief of the Widows and Orphans of Medical Men," makes constant appeals to the Profession—but, alas! all but in vain. The time is coming when we look about us for doing some good to those who have any claim upon our charity and our kindness. We cannot too strongly urge upon our brethren to join this excellent Society. Even those who are morally certain they will never require to be assisted by it should subscribe. Their donation or annual subscription will go to the enlargement of the funds of the Institution, and will be instrumental in succouring and relieving the widow and the orphans of some less fortunate brother, who fell fighting for an honourable livelihood, in a Profession sacred above all others for its unselfishness and its large-hearted charity.

A meeting of the Poor-law Medical Officers' Association will be held at the Freemasons' Tavern on Tuesday, November 29, at 7.30 p.m.

THE WEEK.

TOPICS OF THE DAY.

The prospect of the establishment at no distant date of a conjoint Examining Board for the practice of Medicine, Surgery, and Midwifery in England and Wales seems to us at present a very good one. Negotiations, we have reason to believe, will be entered into by the existing Medical authorities in a fair and practical spirit. The difficulties which, at no distant date, seemed serious, if not insurmountable, will, we expect, be smoothed over, and a good and just basis of negotiation between the licensing bodies be established. It is not easy to overestimate the benefits which must accrue to the great body of English Medical men by the unification of examination. The evils of competition between examining bodies, the scandal of Practitioners in every branch of their Profession possessing but a partial qualification, the diversities of titles, inexplicable to the public and damaging to the Profession, wil in time utterly disappear. If a conjoint Board be established in England and Wales, Ireland and Scotland will undoubtedly at no distant time follow suit, and the best provision of the late Government Medical Bill will thus be obtained unalloyed by any of its evils. We are confident that the three great Medical corporations—the Royal Colleges of Physicians and Surgeons and the Society of Apothecaries—which certainly represent, in some fashion, the bulk of English Medical men, each of which has rendered most excellent service to the cause of Medical education, and each of which possesses the machinery for examining, and examining well, will, by uniting their forces and working in unison, with the single aim and purpose of consolidating and advancing Medical training and examinations, confer a benefit on the Profession, present and future, that will throw into the shade all former schemes of Medical reform.

The authorities of the India Office have given notice that, in consequence of information received from the Government of India, it has been determined not to hold an examination in February, 1871, for admission to the Indian Medical Service.

The letter of our Edinburgh correspondent gives details of a disgraceful riot at the College of Surgeons there. It appears the "lady students" have been dissecting the genital organs in the same room with the "gentlemen" students! Hence a scene of blackguardism unparalleled in the history of Medicine. This business of female Medical teaching has become a most serious public scandal. Why does the College of Surgeons of Edinburgh allow of the provocatives to the riotous proceedings referred to?

We do not for an instant wish to palliate any violence or riotous proceedings of which any of the Edinburgh students may have been guilty; but if they are to be blamed, what is to be said of the systematic infringement of the laws of decency by the dissection of female or male subjects by women, in the presence of men, in Dr. Handyside's dissecting-room, which has led to these outrages? If women desire to practise Medicine, let them do it, if they can. But if they are to do it, public opinion must not be outraged. It must be clearly understood that they must have teachers, dissecting-rooms, Hospitals, and examinations of their own. From her Majesty on the throne—as Dr. Christison has lately assured us—down to the poorest beggar woman we are certain that we have the support of all women who are worthy of the name when we protest against the excessive indecency of young women and men studying anatomy and physiology in the same anatomical school.

Our Profession is evidently looked on as a refuge for the destitute. Doctoring is so easy, so pleasant, and so remunerative in the eyes of the public, that it seems to offer special baits to the genteelly needy. First, we have had a small irruption of the fair sex, although whether their colonisation in our territory will be a permanent one remains to be proved.

But a more formidable invasion threatens us, in the shape of the poorer clergy, who, it is seriously proposed, should unite to their sacred office the secular ones of feeling pulses, attending accouchements, and extracting fees from their parishioners. Of course, we are aware that the professions of theology and Medicine were united in the dark ages, although we do not recollect any instance of priest or friar who charged for his Medical skill. With a flippancy bordering on profanity, one of the writers in the *Times* on this subject adduces the fact that Our Lord was the Good Physician, to support the proposal that the curate of the parish should eke out his income by attending to bodily ailments as well as spiritual. But Our Lord did not take fees for what he did, neither did his apostles. We would suggest that the practice of Medicine, Surgery, and Midwifery would not be quite easy with the due administration of his word and sacraments. Fancy a parson in the middle of an ecclesiastical function being called to a midwifery case! The cool impudence with which Prester, who writes in the *Times* to float this precious scheme, talks of "the capabilities of union doctors" as infinitely inferior to those of some self-taught parson of his acquaintance, who has been filling his pocket by acting as accoucheur in a freer but darker land (we presume on a darker population), and so increasing his spiritual influence, is truly amusing. If our freedom is not equal to our light, the latter is sufficient in England to prevent the English people mistaking the greatest of all quacks—a self-taught Medical parson—for a properly educated Medical man. If the clergy want to practise Medicine, they must go through a proper training, curriculum, and examinations, and become duly qualified and registered Medical Practitioners. The small number who might have the means, time, and patience to do this, in addition to the necessary training for their sacred office, would soon find that the two pursuits, as pecuniary undertakings, were unproductive; that the cure of bodies for gain was incompatible with the cure of souls.

How far is the flesh of carnivorous animals edible by man? is a question which the letters from the newspaper correspondents in Paris suggest to the physiologist. Do carnivorous mammalia in a wild state ever eat the flesh of carnivorous mammalia? We doubt it. No doubt lower vertebrates are not so particular. Fish eat fish, and are themselves eaten by fish in turn. Ophidians and saurians, also, will eat carnivorous animal food with indiscriminating gusto. So birds of prey will eat insectivora; the owl, for instance, eats the shrew-mouse. But when we come to omnivorous man, whose teeth, although originally formed on the frugivorous type, have through long generations been exercised on the juiciest, fattest, and plumpest of herbivora, the question whether he can adapt his digestive powers to carnivorous flesh is a curious one. The Chinese eat dogs; but how do they feed them—for the domestic dog in Europe is not a pure flesh-feeder? The Parisians are now eating dogs and cats—the latter animal having resisted domestication, and retained its flesh-feeding habits much more strictly than the dog. How do these creatures agree with them? The correspondent of the *Times* of Wednesday speaks in laudatory terms of a *salmi* of rats which he enjoyed with a friend at Hall's, on the Boulevards. The dish on which they breakfasted was composed of a couple of rats, with sippets and gravy, at 1 fr. 50c. The writer says the flesh was white, very delicate—something like young rabbit, but with more flavour. Now, the rat is the most omnivorous of rodents, never refusing to eat a young chicken or rabbit if it can get it; and the structure of its teeth exhibits in some respects a decided approximation to the carnivorous type. Then, again, we know that an insectivorous hedgehog, cooked gipsy fashion, with the skin on, has been eaten with infinite relish. On the whole, the question of the possibility of feeding man on carnivorous animal food is a curious one, and deserves elucidation. Bear, we believe, is not bad—at least, bear hams are considered very good; but then bears principally feed on roots and fruits, although not entirely. If dog is edible, why should not wolf be? if cat, why not tiger? The most predatory, voracious fish are the most esteemed at table. Is it healthy instinct, or a time-honoured prejudice that prevents our eating the flesh of predatory animals? These are questions on which the experience of the Parisians, who have still the Jardin des Plantes, will probably throw some light.

The Committee of the Medical Club have announced that they will be happy to confer honorary membership on any French Medical men who have been compelled by the present war to leave their country and take refuge in England. These gentlemen are invited to communicate with the Secretary of the Club.

With unaccustomed liberality, Mr. Lowe has been pleased to afford some of the public money for the purpose of observing the total eclipse of the sun which will take place on December 22. The total obscuration will only last 2 min. 11 sec., and it will be observable at various points in the south of Europe. The Government is to furnish a ship, and one party of British observers is to be stationed in Spain; another will proceed to Naples, thence to be conveyed by ship to Messina. Valuable observations, confirmatory or otherwise of previous ones, will no doubt be made of the nature of the solar protuberances. It is true that means have now been found to accommodate the spectrum to the study of the sun in broad daylight; but still the total solar eclipse affords a special opportunity for observation—an opportunity which it would be a great loss to science to miss, for another will not occur again until the year 1882.

In the case of baby-farming the Government have abandoned the charge against the prisoner Hill, which was raised on the evidence of his former maidservant, who deposed to having seen him bury the bodies of infants in his garden at night. Lime was found in the spot indicated, but no human remains, and there is no trace of the women who were said to have been delivered. The female prisoner, however, is committed to be tried at the Criminal Court on the minor charge of conspiring to foist on George Loe an infant as his child which was not his.

A woman named Maddigan, residing in Warren-street, Tottenham-court-road, has been fined £5, or, in the event of non-payment, has been sentenced to one month's imprisonment, for exposing and selling to a marine-storekeeper bedding on which a child, which had died of small-pox, had laid. The proceedings were taken under the direction of Dr. Whitmore, the Medical Officer of Health for Marylebone.

THE OUTBREAK OF SMALL-POX.

At their meeting on the 19th inst., the managers of the Metropolitan Asylum District received a report of committee relative to the steps to be taken to provide for the cases of small-pox which have occurred in several unions and parishes in the metropolis. The committee received from the managers full authority to proceed with the requisite arrangements, and we learn that the Poor-law Board have since approved of the proposal to open the temporary Hospital at Hampstead, and will dispense with any technicalities which could delay the occupation of the building. At Shoreditch, in Islington, and in the Holborn Union, the epidemic is specially prevalent, and the public safety demands that no time be lost in separating the sick from the sound. It is on such occasions as the present that the Metropolitan Asylum managers are able to show their utility. Prior to the passing of the Metropolitan Poor Act of 1867, there was no machinery whatever for meeting an emergency of this kind. It would have rested with each local authority to make the best arrangements in its power, or to make none at all, according to the degree of energy to be found amongst the managing men of the place.

THE ALICE HOSPITAL AT DARMSTADT.

We have received a bundle of weekly reports of this Hospital, which accommodates eighty or ninety soldiers, chiefly with typhus and typhoid, malarial and intermittent fevers, diarrhœa, and dysentery. Amongst them are a dozen French prisoners, whose names are printed for the information of their friends. Dr. Mayo is well known to have devoted considerable time in his earlier years to architecture and mechanics, and to have published a good book on church architecture, and invented divers improvements in steamships and organs, and other feats of constructiveness, besides witnessing the arrangement of military Hospitals in the United States during the great civil war. He has consequently found himself much in his element in the work of Hospital- and ambulance-building at Darmstadt. In this he has been largely helped by friends at Winchester and Manchester, and by one eminent mercantile family in London; he has acted also under the auspices of the National Society for the Sick and Wounded, which has borne the chief brunt of the expense. It seems that he contracts with the Hessian Government for the maintenance of the sick soldiers. We extract the following passages from the reports:—

"On September 22 the War-office gave to Dr. Mayo a commission to establish a Hospital, and to act as director of it. Dr. Mayo agreed to take all patients that might be sent to him, without regard to the character of their diseases or injuries. The War-office agreed to pay 52 kreutzers per day for every patient—the sum paid by the government for the maintenance of soldiers in other Hospitals; also to give the use of some stone buildings occupied as engineers' stores, and to make the necessary alterations in them. These stone buildings form one side of a square court inclosed by a wall, and have been converted into kitchens, linen-store, and sleeping-room for two or three Medical Officers; laundries, with sleeping accommodation for the nurses over them; as dispensary, office, ladies' dining-room, &c. No patients are lodged within the stone buildings. The wards are at present four in number, each containing twenty-eight beds. They are long wooden buildings on the well-known American model, and are placed in echelon so as to secure isolation and perfect ventilation. On the south side, not only the windows but the spaces between them are made to open.

"The Hospital has no drains. All impurities are received into tubs containing a solution of sulphate of iron, which are regularly emptied into pits dug at a distance from the wards. Solution of permanganate of potass and liquor sodæ chlorinatæ are freely used in the wards. Carbolic acid is also used, but in no great quantity. The wards are heated by large brick stoves, supplemented by others of iron for very cold weather. The sum paid out amounts to 14,355 guldens.

"Staff-Surgeon Fitzgerald, of the Medical department of the British War-office, paid an official visit to the Hospital on the 12th inst., and examined all its arrangements minutely.

"A supply of stores, consisting of sixty-nine bales and boxes, was received from the National Society for Aid to the Sick and Wounded on the 12th and 13th; and a present of thirteen large packages from Manchester, for the Manchester ward, on the following day. Both supplies were most welcome and useful.

"A further subsidy of £1000 has been received from the National Society, together with a very kind letter from Colonel Lindsay.

"Dr. Mayo was informed on the 15th, by Ministerialrath von Preuschen, of the Hessian War Office, who has very kindly befriended the Hospital from its commencement, that, in pursuance of instructions from Berlin, it was proposed to increase it, by adding wards for 120 more beds, the cost to be defrayed by the government. As the kitchen and offices had been prepared with a view to the possibility of increased numbers, Dr. Mayo accepted the proposal without hesitation."

It seems that Dr. Mayo's exertions are gracefully appreciated by the members of the Royal Family—

"Dr. Mayo had the honour of dining with her Majesty the Queen of Prussia at the palace at Homburg on the 10th inst. Her Majesty expressed the greatest interest in all the arrangements of the Alice Hospital, and regretted that indisposition had prevented her from visiting it during her stay at Homburg. Her Majesty also assured Dr. Mayo that she herself and all whose opinion was of any importance in Germany, fully appreciated the kindly feeling which has induced the people of England to make such great efforts to aid the sick and wounded.

"On the 10th inst. her Royal Highness the Princess Louis of Hesse, so soon as sufficiently recovered, was again at the Hospital for a few minutes, and repeated her visit on the 11th, on the latter occasion leaving her carriage and going round all the domestic offices and a new ward not yet occupied.

"H.R.H. the Princess Carl also visited the patients on the 14th inst., and kindly undertook to send some newspapers daily for their use."

FROM ABROAD.—SAPONIFIED COD-LIVER OIL IN PHTHISIS—EFFECTS OF COMPRESSED AIR.

Dr. Van den Corput, Professor of Clinical Medicine at the St. Jean Hospital, Brussels, has just published a paper giving an account of the great advantage which he has derived from the employment of cod-liver oil saponified by lime in the treatment of phthisis. After reviewing the published accounts of the beneficial action of cod-liver oil, and of the various means which have been adopted (with only a certain amount of success) for overcoming the repugnance which so many patients feel for it, he refers to some experiments which are but little known, although of a high therapeutic value, which were made in 1857, at the Artizans' Hospital, of Moscow, of treating phthisis by calcined bone. Of ninety women with tubercular cavities, twenty-five quitted the Hospital cured, or at least in a condition of health relatively good. He attributes also to the presence of the same substance in James's powder "its recognised efficacy in certain cases of phthisis, the reputation of which is justly maintained in our own day"—an admission which, we think, few will endorse here. Certain calcareous mineral waters are also debited with the same efficacy. As a first result of his own investigations in this direction, Professor Van den Corput found that the following formula furnished a preparation that is easier taken and is more efficacious than the oil taken alone, and he has made much use of it in his Hospital:—℞. cod-liver oil 250, chloride of calcium 4, and essence of bitter almonds or anise, 2 parts. Two or three tablespoonfuls to be taken daily after meals, shaking the bottle well each time.

While employing this preparation, however, he had occasion to observe the excellent results obtained by Professor Namias, at the Venice Civil Hospital, by the simultaneous employment of lime-water and cod-liver oil, and the idea occurred to him of uniting these two elements of treatment into a solid combination, facilitating their ingestion and assimilation. He enters at some length into the consideration of the probable effects of this compound upon the transformation of tissues; but for this we have not space, and prefer giving the author's formula for his *jecoro-calcaire savon*. By this, 100 grammes of pure cod-liver oil are ordered to be saponified into a pilular consistence by means of hydrated lime, and then aromatised by 1 gramme of bitter almond or anise essence. The mass is to be divided into boluses of 25 or 30 centigrammes, which may be rolled in a mixture of sugar and iris powder, and covered, if required, by ethereal tincture of tolu. From six to 10 of these are to be taken daily, two at a time, immediately after a meal. In certain cases, morphia, aconite, henbane, or any other substance that is indicated may be associated with the *savon*.

"It is only," the Professor adds, "after having been able to verify, during several years, and upon some hundreds of patients, the favourable action of this medicament, compared with the treatment by the simple oil and other therapeutical agents, and after having received the favourable testimony as to its benefit from those *confrères* to whom I had communicated my ideas, that I have resolved to give publicity to this new mode of treating phthisis. Without desiring in any manner to regard it as a specific, and still less as infallible, I am in a position to affirm that this method, aided by suitable regimen and hygienic conditions, is founded both on rational theoretic reasoning and on a sufficient number of facts to allow of positive conclusions being drawn. . . . It is especially at the commencement of tuberculisation that the *savon* proves of real utility. Administered on the first appearance of the symptoms

of the disease, and continued for a more or less prolonged period, according to the subjects, and especially the nature or degree of the lesions, I have almost always found it retard the progress of the affection, amend in a notable manner the organic degradation and, consequent upon the modification of the nutritive process, often (*parfois*) lead to a cure—or, at least, to a more or less prolonged arrest of the pathologic evolution of tuberculosis. At a more advanced period, its action, though less efficacious, has seemed to appease, in a remarkable manner, some of the symptoms. One of the most evident effects is to most sensibly diminish the cough and expectoration, to moderate the hectic fever, and to restore the strength to its normal diapason by favouring interstitial nutrition in a remarkable manner.

"The direct advantages of the preparation as a medicinal agent are its solid form and its slight and not disagreeable taste. In consequence of its easier ingestion and assimilation, it does not disturb digestion, and does not give rise to the diarrhœa so often caused by cod-liver oil. Still, when, after its prolonged employment, it begins to excite a certain amount of repulsion, it should be suspended for some days, and in such cases pancreatine or bitters may be associated with it with advantage. The preparation is contraindicated when in very advanced phthisis there is excessive hectic, and the digestive organs have already undergone serious alterations. It should also be suspended when hæmoptysis exists. Still, even in the third period of the disease, the *savon jecoro-calcaire* produces, in many cases, a very marked sedation of most of the hectic symptoms. Usually, diarrhœa ceases or diminishes, the evening exacerbation of temperature declines, the colliquative sweats diminish, and the weight of the body sensibly increases. Sometimes, even, the remedy has seemed, after prolonged employment, to have led to the cicatrisation or drying-up of cavities of moderate size. It is especially in torpid phthisis, in that form based on lymphatism, which constitutes its most common appearance, especially in our climate, and which is usually accompanied by hyphæmia, that I have found the *savon* of true utility. It has seemed to me to exert no real efficacy in acute phthisis, which happily is a much rarer affection. The duration of treatment—which may, indeed, be indefinitely prolonged—varies, as a general rule, from six weeks to three months. Generally, after two or three weeks, the *gargouillements* diminish, the cough is less frequent, the expectoration is modified, and, after a time, the fever ceases or at least diminishes. The appetite is almost always preserved, or even increased."

A recent number of the *Boston Medical Journal* contains an interesting article by Dr. Bauer, extracted from the *Chicago Medical Examiner*, bearing the curious title, "Pathology of the Bridge Cases." It seems that during the building of the Mississipi Bridge at St. Louis many of the men working at the piers or beneath them have become the subjects of paraplegia, with other disorders, and that four of the number died. The men were obliged to work in an air-chamber supplied with air as in a diving-bell—the depth below low water mark to which this chamber is forced being 100 feet. The workmen have, towards the close of the sinking of each pier, been compelled to labour under a pressure of about 60 lbs. to the square inch of surface, or four times greater than the usual pressure. In every instance paraplegia was well-marked, varying from a slight paralysis of motor power to perfect paralysis of sensation and motion. The spine was always tender, and pains in the muscles of the chest and shoulders continued for days after other symptoms had disappeared. The bladder lost its expulsive power early in the attack, and in a day or two the urine underwent alkaline decomposition, and often contained blood. Respiration was always disturbed, and prior to death the patient became apathetic, stupified, and comatose; the pulse rarely exceeded 105.

"A *post-mortem* showed in one instance nearly all the veins dilated and filled with dark, tarry blood; great vascularity of the membranes of the cord and brain; a large amount of serum in the arachnoid space. The substance of the brain was changed, and that of the cord in places was softened to a pulp, and nearly all the glandular organs showed great vascularity and congestion. Microscopic examination showed that the softening of the brain was due, in part at least, to inflammatory processes."

Dr. Bauer sums up the pathology as follows:—

"The great disparity between the pressure of the air within the chamber and the power of the gases and fluids within the body to withstand it, must be a main cause of the trouble. It is certain that the equilibrium between these forces is very hard to effect in the short time required in passing into and out of the chambers, and hence the system would be extremely liable to disaster. When the quantity of oxygen is proportionally increased in the dense atmosphere beneath the pier, there is hyperoxygenation of the blood and proportionally increased waste of organic material going on while there. As long as this is going on little injury ensues, but on coming to a rarer atmosphere the power to eliminate this effete organic matter which has accumulated is so reduced that the system suffers from it at once. I am unable to explain why the lower portion of the cord should be the chief recipient of the poisonous effect."

ARMY MEDICAL RESERVE.

(*From a Correspondent.*)

In a recent issue of the *Medical Times and Gazette*, as also in the *Broad Arrow*, and *Army and Navy Gazette*, has appeared, anonymously, a scheme for the organisation of an army Medical reserve. As such a subsidiary corps is indispensable, and as its formation can thus be effected, not only without increased expenditure to the State, but with considerable advantage to the entire Medical department, it seems incredible that the natural—but narrow-minded—intolerance of unofficial interference should blind the authorities to the value of a suggestion at once practical and comprehensive.

The remission of five years' service, and the transfer of each Medical officer who volunteers, on the completion of twenty years' service, to the reserve, giving him the rate of retirement as at present at twenty-five years' service, requiring him to be available up to the age of fifty-five years, affords a means of establishing a reserve list which will be largely sought after, at the same time making a way to escape from the present almost hopeless dilemma of the arrest of promotion, which, though the only grievance left, is of such magnitude as to create discontent and despondency throughout the whole department. An examination for admission to the Service is announced to take place in February next, and doubtless as many candidates as there are vacancies will apply; but these young Surgeons, when launched on their Medical careers, full of hope and good intentions, will soon, on becoming acquainted with their real prospects—which, like the Masonic secrets, can only be known to the initiated—be reduced to the aimless, hopeless state of those who preceded them.

REVIEWS.

Atlas of Ophthalmoscopy: representing the Normal and Pathological Conditions of the Fundus Oculi as seen with the Ophthalmoscope. By Dr. R. Liebreich. The text translated by H. Rosborough Swanzy. Second edition. London: John Churchill and Sons. Berlin: Hirschwald. Paris: Germer-Baillière. 1870.

Our readers are aware of the high opinion which we expressed of Dr. Liebreich's "Atlas of Ophthalmoscopy" when we reviewed the first German edition (*Medical Times and Gazette*, March 26, 1864). It is, perhaps, the most valuable fruit of a permanent and literary kind that has followed the invention of Helmholtz. To the English ophthalmic Surgeon, the advantages which a careful and correct translation of a standard work offers are manifest. It will be sufficient to say that the translation before us is worthy of the high character of Dr. Liebreich's work, and that the explanations and descriptions of cases given are sufficiently clear to render the book as suitable for the learner in ophthalmoscopic exploration as for the adept.

It remains to point out the changes which the author has introduced into the second edition. This edition contains chromo-lithographic plates of choroiditis disseminata, recent retinitis hæmorrhagica, optic neuritis, partial atrophy of the optic disc secondary to retro-ocular affection of the nerve, and atrophy of the papilla secondary to retinitis. To make room for these without altering the plan of the work, some of the less important drawings of the first edition have been omitted. Thus, a drawing of cyanosis of the retina has been replaced by

one of a case of retinitis hæmorrhagica. In reference to these new plates, we can only say that they are equal in artistic execution and pathological value to any of the original. The value of both old and new depends upon their surprising fidelity. How faithful representations they are of pathological appearances is proved by the fact that they are used by one of our most able metropolitan ophthalmologists to illustrate his clinical teaching. He is accustomed to exhibit Liebreich's plates to his class. After describing the figures, and explaining their meaning, he shows his pupils the diseased conditions represented in the living patient by the ophthalmoscope; and in no case has there been a question as to the wonderful reality of the representation. No pathological drawings could be subjected to a severer test. We hope that in their English translation Dr. Liebreich's labours will meet with a very general and very warm appreciation.

It may interest our readers to know that Dr. Liebreich is at present in London, as an asylum from poor war-devastated France. He has given ophthalmic demonstrations at St. Mary's and other Hospitals, and is everywhere warmly received by his ophthalmic brethren.

Eczema: its Nature and Treatment; and, incidentally, the Influence of Constitutional Conditions on Skin Diseases. By Tilbury Fox, M.D. Lond., M.R.C.P., Physician to the Skin Department of University College Hospital. Renshaw. 1870. Pp. 68.

This is a reprint of the Lettsomian Lectures delivered early in the course of the year. We confess to some timidity on opening a new work, the subject of which is a skin disease, knowing too well how often a terrible complexity of subdivisional classification will be found to issue in little else than a few slender indications of purely empirical treatment. But Dr. Tilbury Fox has by no means served us so; he has given us a very readable treatise, in which the classification is simple, and the modes of treatment are based on true principles of scientific Medicine. "Pray let us," he says at the outset, "simplify, as we may do, the whole question of eczema, and especially prune down the prolific nomenclature with which it has been associated." The author is a Willanist in the adoption of those three well-known groups: E. simplex; E. rubrum (the inflammatory form); and E. impetiginodes (that in which pus is soon and freely formed). These three are defended as *true* varieties, and not mere "stages," each having, in fact, its own stages of an erythematous, papular, and vesicular character. The plan of describing twenty or more varieties, as do some authorities, is, we rejoice to find, pronounced unnecessary.

In reference to the nature of eczema, the author is a neuro-pathologist, believing the cell-proliferation to start from the influence of persistent, but moderate, nerve irritation. This involves an interesting argument, in which, however, we should have been glad to find a reference to Virchow's observation that morbid cell-action in the cornea never follows the lines of the corneal nerves. Of course the nerve-paresis of herpes zoster is made use of; and, altogether, the subject is handled in a lucid and satisfactory way. Our author agrees with Hebra in rejecting the idea of a *materia peccans* in the blood, but attaches much importance to the influence of constitutional conditions. Various remedies are described, and, in regard to the local treatment of eczema rubrum, a most important statement put forth, that "the lesson we all need to learn is the avoidance of irritants." We all know how often an early success in a new case, attributed to our "change of the medicine," is really due to our having discontinued the use of applications which, if originally right, have been continued so long as to irritate and disturb. Dr. Fox will merit the thanks of the Profession for so boldly advocating the soothing plan and the true treatment "by rest." How this is to be carried out, and replaced, at length, by remedies appropriate to the scaly and chronic phases of eczema, will be found detailed in the later chapters of this useful little monograph.

Observations on Fractures of the Sternal Extremity of the Clavicle. By Robert W. Smith, M.D., Professor of Surgery in the University of Dublin, Surgeon to the Richmond Hospital, etc.—*Dublin Quarterly Journal*, August, 1870.

In this short communication a most important addition has been made to the literature of injuries of the collar-bone; and the author's reputation as a close observer, and as a terse and and classical writer, has been fully sustained. Having remarked how scanty, and, at the same time, incorrect is the literature of the subject of fractures engaging the sternal end of the clavicle, Dr. Smith proceeds to examine the anatomy of the costo-clavicular and sterno-clavicular ligaments, and afterwards to give details of five case of fractures of the clavicle at its sternal extremity.

The conclusions arrived at from a consideration of ten cases are briefly the following:—

In every instance a displacement *forwards* existed, and the deformity was always connected with the external, or acromial fragment of the bone.

In cases where this displacement forwards was the only sign present, the fracture was usually found close to the joint. When, however, a threefold displacement—viz., *forwards*, *inwards*, and *downwards* existed, the seat of lesion was generally external to the costo-clavicular ligament. The amount of displacement downwards, Dr. Smith regards as a tolerably accurate measure of the distance of the fracture from the sterno-clavicular articulation, this displacement being less the nearer the lesion of the bone is to the joint.

With respect to *intra-rhomboid fracture*, the author is disposed to say that no evidence has yet been adduced of the actual occurrence at all of this injury. We hope that Dr. Smith will include the most valuable *brochure* we have been considering in a future edition of his work on "Fractures."

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, November 22.

Now that the rolls of the Medical schools have been nearly completed, it is satisfactory to find that, notwithstanding the great changes which have taken place in the staff of its Professors, the University of Edinburgh still retains its pre-eminent position among the Medical schools of Scotland.

Within a comparatively brief period, Goodsir, Simpson, and Syme—each in his own department a "bright particular star"—have been removed by death, while from sickness or other causes Professors Playfair, Henderson, and Allman have resigned their chairs.

Whatever the merits of their successors may be—and in some cases they are confessedly great—so sweeping a change has naturally given rise to considerable anxiety regarding the future popularity of the Edinburgh School of Medicine. This feeling has been still further increased by the rapid advances which have recently been made by the sister University of Glasgow, and not a little by the unpopular step taken by the Edinburgh University last year, when it was agreed that women should receive Medical education from it, and by the still more unpopular course advocated by some of its Professors this year in favour of mixed classes. It is therefore satisfactory, if not even surprising, to find that when we compare the number of Medical students enrolled up to the present date this year and last year as follows—

	1869.	1870.
First year students . . .	168	183
Second „ „ . . .	96	157
Third „ „ . . .	93	103
Fourth „ „ . . .	113	104
Total	470	547

we have an increase of 77 this year.

The total number of students attending the University, taken at the same dates, are—in 1869, 1520, and in 1870, 1604, showing an increase of 84; from which it is evident that the great advance has been in the Medical school alone.

That the proposal to admit women into the ordinary classes of the University endangers its popularity is clearly shown by the decided stand which the male students have made against it. When the matter was brought up before the General Council of the University, at their meeting on October 28, a memorial from 160 students was read, thanking the Council for the decision they had come to at their previous meeting against mixed classes. Again, when the managers of the Royal Infirmary—having, on October 31, unanimously resolved not to grant tickets of admission to the wards of that Institution to female students—determined, for reasons to be again referred to, to reconsider their previous decision, the repugnance of the students was so great that within a day or two 504 signed a petition against their admission, couched in the strongest terms. "If the ladies," they said, "be allowed to visit the wards at the usual hours, one of two things must necessarily result—either that many subjects of the gravest Medical

importance will be imperfectly treated, or omitted altogether; or, in the event of such subjects being entered into in detail, we should feel compelled to abstain from being present while such topics are being discussed before a mixed audience.

"Such being the case, we would respectfully draw the attention of the managers to the fact that, when we entered upon our Hospital studies, we had no means of foreseeing that there was any probability of their having to be pursued under circumstances so distasteful to us; and further, that had such circumstances been foreseen, they would have materially influenced us in our choice of a school of Medicine."

Where the experiment of mixed classes is being tried, it is giving the reverse of satisfaction. Amongst the signatures to the above petition are the names of, at least, thirty students studying under Dr. Handyside, twenty-four under Dr. Watson, and seven under Dr. Duncan. Indeed, the feeling of some of the students attending these classes has reached such a pitch, that on Friday last there resulted a disgraceful and riotous demonstration against the female students. A number of young men gathered within the grounds of the College of Surgeons, and upon the arrival of the ladies, at 4 p.m., the gates were closed against them. It was only after a time, and with difficulty, that they obtained admittance to Dr. Handyside's anatomical demonstration-room. When the class had assembled, a number of the male students, by tramping of the feet and snatches of songs, threatened to put a stop to the ordinary class-work. By those outside the noise was kept up, and a pet lamb which grazes on the scanty plot of grass within the railings was thrust into the class-room. When the class broke up, the turbulent portion of the students accompanied the ladies along Nicholson-street with hisses and groans.

Although the committee of the students who protested against the admission of female students to the wards of the Royal Infirmary have expressed their disapproval of, and disowned all connexion with, this disgraceful proceeding, it is none the less significant that such a result should so soon have followed the experiment of a mixed anatomical class. Moreover, a letter from "A Male Medical Student," in yesterday's *Scotsman*, clearly shows that the better class of students, while disapproving of such a method of carrying out their views, are none the less determined, in a legitimate way, to clear the University of what is to them a very objectionable element.

The circumstances which induced the managers of the Royal Infirmary to reconsider their previous resolution are, I believe, the following. Competent authorities had questioned their right to refuse tickets of admission to any matriculated students of the University. Certain clinical teachers, both of Medicine and Surgery, had expressed their willingness to teach the ladies, and the latter their intention, if admitted to the clinical classes, to avoid the wards of those gentlemen who objected to their presence in them. At a meeting of the lecturers in the extra-academical school, on the 9th inst., a motion to the effect that they petition the managers of the Infirmary not to throw any obstacles in the way of female students obtaining tickets of admission to the wards of the Royal Infirmary was carried by 9 to 5.

The managers held their second meeting on Wednesday, the 16th inst., the Lord Provost presiding. A letter from Lord Neaves was read, in which he, while regretting that it was not in his power to attend the meeting, stated that he thought there was considerable difficulty in the way of the managers refusing to female students tickets of admission to the Infirmary. Mr. Blythe, C.E., moved that the female students be admitted to the Infirmary wards of those Physicians and Surgeons who had agreed to receive them. Dr. Douglas, the President of the Royal College of Physicians, seconded the motion. Dr. Combe moved as an amendment—that the original resolution of the managers, not to give a ticket of admission to any female student, be adhered to. The amendment was seconded by Dr. Andrew Wood. For the amendment 10 voted, for the motion 6, the amendment being thus carried by a majority of 4. The position of the question is therefore now as follows:—

The President of the College of Surgeons has pointed out, in a letter to the *Scotsman*, that in so far as the Royal Colleges are concerned, although the school of the Colleges of Physicians and Surgeons have, as stated in the petition of the female students, admitted the right of ladies to study Medicine, "the subject of female Medical study has never yet been broached by the Royal College of Surgeons, nor," he believes, "by that of the Physicians; and it remains yet to be seen whether these corporations have either the power or the inclination to legislate on the subject."

The University, therefore, is really the only body which stands committed to the step of authoritatively admitting the right of female students to study Medicine with a view to graduation. But while it has done this, it is guilty of the injustice and inconsistency of refusing to teach those whom it allows that it is its duty to teach.

The School of the Royal Colleges has, on the other hand, committed the indiscretion of admitting ladies into its classes without first obtaining from the Colleges any guarantee that such attendance will qualify for graduation. And, finally, the Royal Infirmary has closed its doors against them, and has thus precluded the possibility of their obtaining one essential branch of Medical education. Is this creditable to the Edinburgh Medical School?

The lady students talk of taking legal advice in their extremity; and it is not improbable that they may gain something for their pockets, if not for their prospects, by this proceeding; for, whether we approve or disapprove of their claims, it is evident that they are being subjected to manifest injustice. But to conclude this subject, whatever advantages its advocates expect to result from it, no one can doubt that a disproportionate amount of time and thought has been, and is being, wasted on it; and it is hardly fair that, for the sake of six or seven exceptional ladies, as many hundreds of male students should have their minds distracted during an important part of the session.

We have congratulated ourselves upon the numerical prosperity of the University Medical School this year; but it is to be feared that, if a deaf ear is turned to the wishes of the great majority of our male Medical students, at a time when our University has lost the attraction of so many of its most distinguished teachers, the student may be forcibly awakened to a conviction that the University is not what it was in former days, and may seek, in the splendid class-rooms and laboratories of the new University of Glasgow, or elsewhere, that quiet prosecution of his important studies which is denied him here.

The first meeting of the Medico-Chirurgical Society for this (its fiftieth) session was held on Wednesday, the 16th. We were glad to see that, under the presidency of Professor Bennett, the attendance of members and the interest of the proceedings have been increasing.

Much interest was excited by a case of pseudo-hypertrophic paralysis, which was exhibited by Dr. Grainger Stewart, and which was worthy of notice, especially as it occurred in an adult, and as some improvement was taking place under treatment by means of galvanism. The muscles of the legs and thighs and the extensors of the back were enormously hypertrophied, and some of those in the upper extremity were to a less extent involved. Dr. Stewart stated that the disease had probably begun in childhood, but had remained in abeyance for many years.

A remarkable case of aneurism of the aorta was also shown by the same gentleman. The aneurism appeared to arise from the right side of the ascending part of the arch, and pressed upon the recurrent laryngeal nerve, the right bronchus, the œsophagus, the superior vena cava, and the sympathetic. It was to the last point that attention was specially directed, for to it was ascribed dilatation of the right pupil. Dr. Stewart supposed this symptom was due to irritation of the sympathetic, and suggested the probability of the opposite condition being induced if the aneurism so enlarged as to destroy, and therefore paralyse, the affected nerve.

Dr. Chiene read an excellent paper on a case of obturator hernia, which he had met with in the anatomical rooms of the University. In the course of the discussion which followed, the President, Dr. Joseph Bell, and other gentlemen expressed themselves in favour of the proposal to cut down upon, and, if possible, to operate, on cases of obscure internal obstruction of the bowel. Several cases were mentioned in which, so far as post-mortem appearances indicated, Surgical interference might have saved life.

Dr. Argyle Robertson read a most interesting paper on "Albuminuric Retinitis." After briefly narrating the history of the gradual elucidation of the ophthalmic complications of Bright's disease, and describing the morbid appearances revealed by the ophthalmoscope, and found on post-mortem examination, he narrated a number of cases which had occurred in his own practice during the past year, in several of which no suspicion of anything, excepting disease of the eye, had existed at the time of their application to him—cases, in fact, in which albuminuria had been diagnosed simply by means of the ophthalmoscope. He suggested a view as to the nature of the retinal affection different from that which is commonly entertained—viz., that the yellow patches were due to the results of inflammatory processes, which, although hitherto

detected only, or almost only, in the eye, probably existed in other parts of the nervous system, and occasioned many of the peculiar nervous symptoms often met with in the disease, and classed under the general term uræmia.

In discussing the paper, Dr. Matthews Duncan referred to the need of more accurate ophthalmoscopic examination in cases of ophthalmic affection accompanying pregnancy, with or without albuminuria, and Dr. Grainger Stewart directed attention to the importance of extensive similar observations being made in cases of cerebral affections.

The President and other members having expressed a wish for a more minute account of the histological appearances met with in Dr. Argyle Robertson's cases, that gentleman promised at a future meeting to lay them before the Society, and I hope in some future letter to give your readers an outline of the results.

(*From Another Correspondent.*)

Edinburgh, November 23.

You have been already informed that on Wednesday last (16th inst.) the managers of the Infirmary, on reconsideration of the matter, again refused to admit the female Medical students to the wards, but not unanimously. Dr. Douglas, the President, and Dr. Moir, ex-President of the College of Physicians, voted in the minority. The wisdom of this decision was soon shown, for on Friday afternoon about 200 students collected at the College of Surgeons, and shut the gates in the faces of the "female Medicals" or their way to Dr. Handyside's anatomical class. The janitor having forced the gates open, the females were enabled to proceed, but, according to reports in the papers, not so the lecturers, the students holding high carnival during his discourse in their usual noisy and exuberant fashion. Some of them accompanied the female students on their way home with unpleasant intimations of their sentiments, and, finally, the police apprehended three or four of the noisiest. An enraged writer in the *Scotsman* affirms, with a good deal of exaggeration, that the students hustled, hooted at, covered with mud, and even struck at, "ladies who have always shown themselves to be gentle and noble women." The committee of students who got up the memorial to the managers of the Infirmary indignantly and at once repudiated all complicity with the disturbances, and Miss Jex Blake stated in the papers that it was only "the lowest of the University students" who had perpetrated the outrage. In other letters certain unnamed Professors of the University are charged with unmanliness, cowardice, and other improprieties in the safe retirement of their class-rooms—the usual absurdities, in fact. There are thus all the signs of a general and continuous quarrel for the session. Happy the schools who have no "ladies" to teach!

Of course, the students have none to defend their conduct, although not so black as painted, but many sympathise with their sentiments. Ample warning has been given that the new method women have adopted to procure Medical knowledge must tend to demoralise the male students in the identical way in which demoralisation has been manifested. Further, it is only just to say that the same students were last year most polite to the ladies when attending unmixed classes at the University. Indeed, Professor Masson "positively" assured the University Council that a marked improvement in the conduct of the students generally was visible—the ladies' eyes having rained gentle influence on them. Why, then, this monstrous change to conduct in which the chivalrous respect which every true man should show every true woman, whether she be "lady" or not, is wholly wanting? Is it not plain that, by dissecting the human genital organs with a *sang-froid* which surely must be assumed in the presence of males, the female students have unsexed themselves in the eyes of the young men, and thereby have denuded themselves of the privileges of their sex? It is sheer clap-trap to say that the holy pursuit of science, or the Professional succour of women, warrants this. If women are too modest to speak of sexual matters to sage and prudent male Physicians, ought not young ladies to be at least so modest as not to dissect the *pudenda* (mark the word, as a sign of anatomical modesty) in the presence of young gentlemen? If young ladies were to go to barracks to preach the gospel, would it be thought becoming their age and sex? Yes; that would be a holy enterprise compared with the unblushing, because ambitious, pursuit of what these ladies have been led to believe will prove a lucrative Profession. These are some of the arguments you hear on the other side. It is understood, however—as, indeed, is plainly said in the memorial you printed—that the students will leave the University rather than attend classes to which women are admitted on any pretence whatever, and it is said, also, that many of those who have joined Dr. Handyside's class, did so from necessity, either because there is no room for them at the anatomical rooms of the University, which are full to overflowing, or because they are too poor to pay the higher fees there.

Dr. Matthews Duncan's failure is an instructive lesson. As to fees, one reprehensible fact in the treatment of the female students must be noted. Two of their teachers have made them pay two and a half times the fees paid by the male students. One of these had some grounds for the extra charge, although I understand Dr. Crum-Brown, under similar circumstances, was more just; but the other, who teaches a mixed class, has no such excuse, and it remains to be explained why six ladies had to pay, as is rumoured on good authority, £150 for instruction to a certain teacher, who, by-the-bye, was until lately opposed to mixed classes.

As miseries never come single, there is another bicker going on in the Veterinary College. One Professor accuses another of not knowing a cow's bone from a horse's! and the students join, of course, in the discord. Luckily, this College is under the management of the City Council. It is not certain whether an attempt will not be made to introduce the ladies into the Faculty of Arts; if so, fresh bickers, and more damage to the work of the University. There happens to be, for some cause not very clear, an unusual influx of Medical students, and this has been seriously attributed to the liberality of the University in admitting ladies! It seems most probable that they have come in anticipation of impending changes in Medical education. Up to this date, 556 students have matriculated in the Medical Faculty, and of these 341 are first and second years' men. The unfinished condition of the University buildings at Glasgow has sent a few Glasgow students to Edinburgh. We have no news of Professor Allman's successor, Dr. Wyville Thompson.

Risu solvuntur rixæ. Since writing the above, I hear that Don Quixote and Sancho Panza have taken the field in defence of the ladies, in the form of Mr. Henry Kingsley, editor of a daily paper, and his faithful penny-a-liner. They took possession of the College gates to-day, looking more terrible than Gog and Magog, and valiantly held them. After the lecture they each took a lady on their arm, followed by volunteer squires, each with his lady: and thus a gallant procession of seven couples was formed, which proceeded to the anatomical ladies' home, followed by an admiring crowd. Fear and fun have fallen upon the wild lads, and they will be peaceful for the future.

GENERAL CORRESPONDENCE.

DR. BEALE ON CONTAGIUM PARTICLES.

Letter from Dr. George Buchanan.

[To the Editor of the Medical Times and Gazette.]

Sir,—May I beg your readers not to fall into error through a phrase which occurs in Dr. Beale's communication to you of last week? Dr. Beale says that "Hallier's strange conclusions about the cholera fungus . . . are favourably entertained by Dr. Sanderson," who "has devoted more than a dozen closely-printed pages to an exposition of these extraordinary doctrines." Literally, Dr. Beale is doubtless right. The remarkable observations which we owe to Professor Hallier's industry most certainly deserved that favour which a scientific inquirer ought to give—namely, a full understanding of them, and then careful independent investigation into their truth and signification.

Dr. Beale's intention is perhaps to ascribe to Dr. Sanderson only this respectful entertainment of Professor Hallier's views. But the phrases which I have quoted may, without care of the reader, lead him to a different and erroneous impression as to what Dr. Sanderson really has written, and may cause him to suppose that Dr. Sanderson has espoused the fungous pathology of cholera advanced by the German botanist. My object in writing is to point out that whether or not Dr. Sanderson has taken this side in his recent report is a literary question only, and one upon which every careful reader may form a judgment. For my own part, I have no hesitation in asserting from the report, that Dr. Sanderson has not adopted Hallier's doctrines of cholera. Speaking of Hallier's two principal conclusions on the nature of this disease—viz., that his so-called micrococcus is always to be found in cholera evacuations, and that it is derived from a fungus which grows parasitically

upon rice, Dr. Sanderson says (page 253) :—"At present there is no ground for stating either the one or the other;" and he sums up his account of Hallier's experiments on cholera with the certainly not too flattering remark that their "defects and imperfections . . . render it impossible for the present to derive any conclusion" from them. To represent Dr. Sanderson as affirming that contagium particles are microzymes, would, indeed, as I read his report, be as incorrect as to assume that, because he insists on the particulate form of pepsine, he therefore regards it as being composed of microzymes.

November 20. I am, &c. GEORGE BUCHANAN.

FEMALE MEDICAL STUDENTS IN EDINBURGH.

[To the Editor of the Medical Times and Gazette.]

SIR,—Whoever furnished you with the report of what passed at the meeting of the managers of the Edinburgh Royal Infirmary on the 14th inst., has sadly misrepresented the arguments employed, as well as the state of feeling here—judging, at least, by its results.

One argument employed against the admission of females to the Infirmary was that it would ruin the school. The reply to that was, that it had not lessened the attendance at the anatomical lectures they attended, or at the rooms where they dissected: and Dr. Watson distinctly declared that at that date he had already enrolled more pupils than at the same date the previous year, when there were no females attending, ten of these being entered by parents and guardians, who were fully cognisant of the nature of the class. Dr. Matthews Duncan has, it is true, not so large a class as he had a right to expect, though still far above what your reporter asserts; but that is due more to fickleness on the part of the students than to any other influence; and this is proved by the facts:—1. That the great disparity between Professor Simpson's class and his existed from the first, before it could be known with whom the ladies were to be; and 2. That, in spite of their protest against Professor Simpson's election, and their expressed determination to attend any one rather than him, so distinguished and able a lecturer as Dr. Keiller was left altogether in the cold, though no ladies attended his class. The *prestige* of a Professor, and of the name of Simpson, were too strong to be resisted, and the result furnishes a very adequate proof of the value of a protest from students.

The next argument was the one of indelicacy; it was advanced by a Professor who, in the whole course of his lectures, never requires to do more than to mention the influence of certain specific diseases upon the course and development of other ailments, and who, while asserting that his courage fails him to do this in a quiet and gentlemanly manner before a mixed audience of scientific individuals, yet took the only opportunity he has recently had of addressing a mixed audience, the bulk of whom were young ladies without any pretensions to science, upon the Contagious Diseases Act. *Proh! pudor!* such delicacy is surely American in its birth, not British. He was followed by Professor Lister, who stated that he had just been performing before his class certain operations which he would have had a difficulty in doing before a mixed class. He was also understood to say that the female nurses always turned their backs or left the wards when such operations were being performed. Now, we sympathise deeply with Mr. Lister on this point, but sympathy is not argument; and moreover, the ladies have expressed no desire to intrude into his wards, or to be present at his operations. They must have a general ticket to the Infirmary, to enable them to present themselves for examination; but they have promised to restrict their attendance to those wards where their presence is not objected to, and where the difficulties which present themselves to Mr. Lister's mind will in some way or other be overcome. It is not necessary that they be present at such operations, nor do they desire to be so. Though ardent students of Medical science, they are yet truly feminine, both in feeling and instinct.

The arguments advanced by the parties in favour of the ladies were not of that coarse nature and tendency represented by your reporter. It was argued by them that the feeling of indelicacy was very much conventional; that to expose women before men was really quite as indelicate as to expose men before women, and quite as demoralising in its tendency; that, while the latter was never intended to be done, the former was continually practised, our repugnance to it having been got over by the dire necessities of the case. There was nothing indelicate in the actual facts, the indelicacy consisted solely in the relative associations—associations which, since the world was, had ever ceased to have any influence in the presence of the needs of suffering humanity. Hundreds of elderly men had their ailments carefully attended to by female nurses, whom they usually preferred for their care and gentleness, and one of the speakers gave an instance in which a country Surgeon had been forced, by the exigencies of the case, to teach a daughter to pass the catheter on her own father. This might well be called an indelicate procedure, but it was absolutely necessary under the circumstances; whatever repugnance the Surgeon may have felt, he could not do otherwise, and it was attended by no demoralising result. The argument is fair. Here we have half a dozen ladies, permitted to commence their Medical studies on the understanding that they shall be permitted to finish them, met in the midst of their career by obstacles which ought to have been carefully weighed before they were permitted to enter upon it; and these obstacles resolve themselves entirely into a charge of indelicacy. But this feeling of indelicacy is, in Medical matters, one wholly conventional—relative, not real; it has yielded already, without damage to society, before the wants of humanity; to prove that it should not do so now, it would be necessary to show that there is no need for female Doctors, and to show this would be to prove that a great mistake has been committed, and a great injustice done, in permitting those female students to commence that Medical career which they have hitherto pursued with so much discretion, diligence, and success. Had I not already encroached too much on your valuable space, I could adduce many strong arguments in favour of female Doctors for attendance upon women, and I would also show that to fit them for this it is absolutely necessary that they be fully educated. For the present, however, I must omit this, and I only beg to remark, in conclusion, that mixed classes have already been taught, without detriment either to teaching or morals, in the Medical wards of the Edinburgh Royal Infirmary; and in proof of this I would beg to refer to the Physician's report to the managers as to the training of nurses in the wards, probably some seven years ago. I am, &c.,

ONE COGNIZANT OF THE FACTS.

Edinburgh, November 19.

*** We suspect that our correspondent's confirmation of the story of the catheter will do much to render mixed Medical teaching impossible—at least, in England.—ED.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your journal of Saturday last there appears a paragraph in which it is stated that only nine male students are attending Dr. Matthews Duncan's midwifery class. This is incorrect. Many more than double that number of men have already enrolled their names, and more may still do so.

To prevent misapprehension as to the cause of even this small number of entries—small when compared with the reputation of the teacher, but a fair average as extra-mural classes go—allow me to mention that until Dr. Duncan introduced women to his lecture-room the classed was filled, and it was solely owing to their presence that any subsequent defections took place.

I trust to your sense of fairness for the insertion of this, and enclose my card. I am, &c. VINDEX.

Edinburgh, November 21.

MEDICAL CHARGES ON THE PRINCIPLE OF PREVENTION BETTER THAN CURE.

LETTER FROM DR. W. OGLE.

[To the Editor of the Medical Times and Gazette.]

SIR,—To those who feel the degradation of the present system of charges for physic and attendance allow me to submit the following plan, premising that it is intended to solve many other Medico-ethical problems than the one named by your correspondent (Nov. 19) on "Medical Charges."

1. Let the family Doctor be considered and dealt with as a health officer, whose duty it is to prevent disease. To this end the acknowledgment for his services in ordinary should be generally so much "per annum." Payment "per visit" should be the exception, and payment "per bottle" never. Fees should be reserved, as far as possible, for exceptional and extraordinary occasions.

2. The term "ordinary" to include not only (*a*) all preventive work but (*b*) all attendance in time of sickness for which request has been made at an early hour—say by the time of the first postal delivery—and for which the Doctor may be allowed to make his visit in the course of the day, at any time most convenient to himself, or even to send a substitute. On the

other hand "extraordinary" to be applied only to (*a*) night visits, (*b*) Sunday visits specially requested, (*c*) visits paid in obedience to a summons to come immediately (accidents, obstetric work, etc.), or at some hour fixed by the patient (consultation, etc.).

3. The amount of the sum "per annum," and of the exceptional fees "per visit," to vary according to circumstances, and to be determined, as now, by private arrangement between the Doctor and his client.

As already intimated, this system is intended to remove many other disabilities from which we suffer than the one named by your correspondents; but for the present it may be well to propound it simply as a way of escape from the degrading custom of supplying physic, and from that which is—to some, at least—the scarcely less obnoxious practice of charging "per visit." I am, &c.,

William Ogle, M.D. Cantab, F.R.C.P. Lond.

P.S.—Perhaps it may be well to add that, though I have in former times tried this plan, and have found it answer, I am now so circumstanced as to desire only consultation practice, and can therefore look for no direct personal benefit from the adoption of any such proposal.

CLERICAL MENDICANTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The *Times* has given currency to two letters, filled with dismal complaints of the misery "of that irrepressible animal, the poor curate, and more especially to the poorest variety of the class, the married curate." The conclusion come to is, that these poor wretches, in order to ward off starvation and feed their innumerable children, had better take to some other trade or calling in addition; and the writer does us the honour to select the practise of Medicine and midwifery as the pursuit fitted for a middle-aged clergyman hampered with domestic anxieties, and not brilliant enough in his own line to attract attention and make an income. Yet the curate is spoken of as a man of gentle blood and manners, high culture and ability, etc. Any one, the writer says, "who is acquainted with the capabilities of union Doctors would recognise the value of such a man, to all classes alike, in a country district in England."

For my part, it fills me with wonder why a man so poor and yet so gifted should not do the work of his own calling well; why he should not become a learned theologian, a practised speaker, an acute interpreter of religious doubts and difficult cases of conscience; and, if he were, his time and pockets would both be better filled, and he would not covet the work and the pay of the Union Doctor. Nay, more, I would retort that anyone who is "acquainted with the capabilities of country parsons," and who sees their mouldy churches shut from Sunday to Sunday, who knows their self-indulgent habits, their addiction to croquet and its frivolities, their ignorance of all that is deep in science and philosophy, and their peddling interference with the treatment of the sick, as a pleasing variety for their grand task of presiding at flannel and grocery clubs and mothers' meetings, would rather wish that the parish Doctor should preach in the church, than that the parson should treat the sick. It is very well for these gentlemen to despise the Union Doctor; but suppose they themselves were to work as hard in their vocation!

London, November 22. I am, &c., Emeritus.

Anthropological Society of London. — At a meeting of this Society, on the 15th inst., Dr. R. H. Bakewell read a paper on "The Condition of the Blood Corpuscles in certain Races." The author's researches had been undertaken at the request of Dr. Barnard Davis, F.R.S. While investigating the pathology of malarious fevers, the writer made numerous microscopical examinations of the blood, both of the sick and the healthy, in Trinidad. On comparison of the various races of English, French, Portuguese, Italians, Germans, Indians, Chinese, Africans (both indigeneous and of West Indian birth), and Creoles of various breeds, he found that, besides the differences produced by disease, there were well-marked differences between the various races. The corpuscles of the flesh-eating Mussulman and the vegetable-feeding Hindoo were contrasted, and it was found that the Hindoo's blood contained a much larger number of white corpuscles, the red corpuscles also differing in form from those of the Mussulman. The author coined the word "nummulation" for the phenomenon observed in the aggregation of the corpuscles like *rouleaux* of coin. He gave the results of the examination of the blood of about a hundred different persons.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, November 19.

Dr. Druitt, President, in the Chair.

The minutes of the preceding meeting having been confirmed, the Chairman introduced to the notice of members samples of various articles of sanitary utility.

Among these were samples of Antiseptic Fuel, invented by Dr. J. Dewar, of Kirkcaldy, made of vegetable fibre strongly impregnated with carbolic acid and sulphur, and intended to be used either for disinfecting clothing or medicating the air of a sick room. Also, a specimen sent by Dr. Calvert, of Sanitary Tow impregnated with Stockholm tar and carbolic acid, useful for application outside a suppurating wound.

The Chairman also passed round some samples of Calvert's Carbolic Soap, for purifying the hands. He used it himself, and thought it beneficial. Samples were likewise exhibited of Spiking and Co.'s Malt Biscuits for babies, also the same made into powders, a Biscuit containing Steel, prepared by the same firm, and other sanitary novelties.

Dr. Wise was balloted for and declared duly elected.

The use of "Chloralum," introduced by Mr. John Gamgee, was to have been reported upon by Dr. Stevenson, but as that gentleman was prevented from attending through indisposition, the Chairman invited Mr. Gamgee to address the meeting.

Mr. Gamgee, after speaking of the part he had taken in endeavouring to abolish the nuisance of town dairies, and the sufferings of animals in transportation, came to the subject of chloride of aluminium. He explained various experiments made by him, assisted by Dr. Dewar and Professor Wanklyn. He found chloride of aluminium to be a capital antiseptic. He exhibited a bullock's foot, ten months old, which had been steeped in the solution. It had no smell, retained its colour, and, strange to say, was unassailable by parasites. He found this new agent as powerful as sulphurous acid, and yet without its destructive properties. He had tried it for Surgical and Medical purposes, and found that in every possible way it destroyed the germs of putrefaction. Mr. Gamgee also described the value of a solution of sulphurous acid in alcohol.

Dr. E. Ballard, Medical Officer of Health for Islington, then read a paper "On a Localised Outbreak of Typhoid in Islington, in July, 1870," which will be found in another column.

At the conclusion of the paper, a vote of thanks was passed to Dr. Ballard by general acclamation.

Dr. Buchanan thanked Dr. Ballard for this masterpiece of Medical logic, worked out with such amazing industry and accuracy.

Dr. Hardwick wished to know from Mr. Gamgee whether there could have been anything in the secretion of the cattle to account for the typhoid.

Mr. Gamgee had seen nothing to show that typhoid fever spread from cattle to man.

Dr. Glover said that, as a Medical Practitioner in Islington, he was quite satisfied with the conclusions arrived at. He hoped one result would be that something would be done to put a stop to the adulteration of milk practised so systematically and unscrupulously.

CLINICAL SOCIETY OF LONDON.

Friday, November 11.

Mr. Paget, President, in the Chair.

Mr. Pollock read particulars and exhibited several cases of

SKIN-GRAFTING AND SKIN-TRANSPLANTATION.

In relating the particulars of the first case in which skin-grafting had been attempted in this country, he stated that in 1869 M. Reverdin originated in Paris this method of treating large ulcerated surfaces. In May, 1870, the author first heard of M. Reverdin's experiments, and at once decided to test the treatment. A girl, eight years of age, had been in St. George's Hospital for some three months and a half, with an extensive open burn of the right thigh, of more than two years' duration. The ulcerated surface extended from the buttock to the knee—broad above, and ending almost in a point below. Mr. Pollock

at first transplanted two small pieces of skin about the size of millet seeds, taken from the lower part of the abdomen. Subsequently three, and again other pieces, were transplanted at various periods—in all, about fourteen pieces had been transplanted. The child was exhibited to the members of the Society, and it was seen that this extensive burn was nearly healed, in a period little over five months, without any perceptible contraction of the cicatricial tissue originated by the transplanted skin. The child had greatly improved in health as the progress of cicatrisation had advanced. In this case two pieces of black skin had been on one occasion transplanted to the ulcerated surface, and became attached; when increased in size, the area of the pigment deposit had considerably increased in one of them, although the whole of the cicatricial tissue due to the transplantation of this portion of skin was not generally dark coloured. The sore was attacked some time after by sloughing, which was chiefly confined to the portion in which the black skin had been ingrafted, and unfortunately destroyed the whole of the cicatrix due to this transplantation. Mr. Pollock made some general remarks with respect to the mode of transplantation, and the conditions requisite to the success of the operation. He usually transplanted very small pieces, similar to the plan pursued by M. Reverdin, and considered it essential to the success of the operation that the surface of the granulations should be in a healthy state. In some cases the operation had entirely failed, in consequence of the state of the sore. In other cases, though the piece transplanted had become attached and vitalised, yet, owing to the state of the patient's health, it had remained stationary, and gave no sign of increase. Mr. Pollock, in conclusion, thought a tribute of admiration and gratitude was due to M. Reverdin from the Profession for the boon he had conferred upon Surgery by the introduction of this original method of dealing with large and obstinate ulcers.

Mr. Lawson read a paper

ON THE SUCCESSFUL TRANSPLANTATION OF PORTIONS OF SKIN FOR THE CLOSURE OF LARGE GRANULATING SURFACES.

He exhibited two patients in whom this mode of treatment had been attended with satisfactory results, and related the history of a third, who had been equally benefited by the method of transplantation. In one patient a large ulcer of the leg, which had resisted all treatment for over four years, was completely closed in a few weeks after a piece of skin the size of a fourpenny-piece had been planted on it. As soon as the new skin had established its vitality, granulations sprang from the circumference, and rapidly closed-in the wound. In another patient the results were equally satisfactory. In a third case Mr. Lawson formed a new eyelid for a patient who had a complete ectropion of the upper lid. He dissected the lid from its attachments, pared at two points the corresponding tarsal margins, and united them by two fine sutures, and thus obtained a fixed level surface upon which to transplant a portion of skin. The parts were then left, and on the fourth day, when the wound was covered with healthy granulations, he transplanted a piece of skin of the size of a threepenny-piece, and two days later another portion, of the size of a silver fourpenny. Both pieces rapidly united to the granulating surface, and the space between them was speedily filled up with new cicatricial tissue. A new lid was thus formed, which was sufficient to protect the eye from exposure; but the presence of two pieces of skin, different in appearance to the ordinary eyelid integument, gave to the patient a peculiar and rather unsightly look. In each of these patients the skin which was ingrafted not only soon became vascular, but acquired sensibility, and after ten or twelve days could appreciate the slightest touch with a blunt instrument. The conditions which Mr. Lawson found essential for the operation were:—1. That the new skin should be applied to a healthy granulating surface. 2. That skin only should be transplanted, special care being taken that no fat adhered to it. 3. That the portion of skin should be accurately applied to the granulating surface. 4. That the new skin should be kept in position without interruption, and that it should be lightly covered with a layer of lint, and over that a small compress of cotton wool, and a bandage, for the purpose of maintaining its warmth, and thus to assist in retaining its vitality until it had established its new life.

Mr. John Croft, for Mr. Le Gros Clark, exhibited a patient who came into Hospital with a large sore on the leg, six inches by four, and the patient was in ill-health. On August 1 a piece of skin a quarter of an inch in diameter was snipped from the thigh, and fixed on the sore. On the 11th there was hardly any of it to be seen, but by the 22nd, when Mr. Croft took charge, an island of skin, three-eighths by one-fourth of an inch in size, was visible. This rapidly spread, and the whole was now nearly skinned over.

Mr. F. Mason had operated on about twelve cases. As to the size of the pieces to be grafted, he thought they might be too large, and they might be too small—his own were of the size of a canary-seed. He had failed completely in a case of ulcer of the neck, owing, he thought, to the position and movement of the grafts. His pieces, as a rule, did not disappear, though sometimes the healed portions looked likely to ulcerate.

Mr. Carter asked Mr. Lawson if it would not have been better to have taken the pieces from the other eyelid; they looked buttony now.

Mr. Lawson said it was not a model to be copied, but rather an experiment. In another case he would try to do all at once. He would not like to damage a sound eye for the sake of a bad one, and the results of such an operation were seen after entropion.

Mr. Gant wished to know what it was that grew—the cuticle or what?

Mr. Spencer Watson had tried the plan successfully in a boy who had suffered a severe burn on the back. He got one or two pieces to grow.

Mr. Arnott had, in a case of keloid in the neck, removed the diseased structures and transplanted some pieces of cuticle. The sore was at the angle of the jaw. One piece slipped, but became adherent at the edge; five others remained fixed, and did well. He had in one instance transplanted a piece of cuticle an inch square in the loin. It seemed to disappear, but after a fortnight a small patch was seen. In the case of a man who had two sloughing ulcers, which after a time improved, he transferred to one three pieces of cuticle, and left the other alone. The pieces did well, and after a time the sore was nearly healed, when he found the other sore, which had not been interfered with, nearly as well.

In reply to Mr. Heath, it was stated that the keloid was removed by deep dissection in August, and had as yet shown no sign of returning.

Mr. Reeves thought it would be well to note that it was the large pieces which sloughed.

Mr. Durham's experience had been satisfactory. His method differed somewhat from that generally adopted. A boy of 12 had suffered from a patch of lupus non exedens on the cheek. He cut it out, and loosening certain strips of skin from the edges, turned them inwards without cutting through their connexions at one end. All adhered, and each became a centre of cicatrisation. In another instance, a little girl had a nævus on the point of her nose. This was removed, and two small pieces planted. They soon cicatrised. He thought small pieces were better than large ones.

Mr. Callender said that among Mr. Willett's cases one woman was markedly syphilitic. A portion of cuticle transplanted to an ulcer on the leg had taken root and done well.

Mr. Heath asked the age of the sore—was it really syphilitic, or did it only occur in a syphilitic person?

Mr. Callender said it looked an ordinary tertiary one.

Mr. Pollock having briefly replied,

Mr. T. Smith exhibited a patient believed to be the subject of vaccino-syphilis.—Mr. Callender, Mr. Gascoyen, and Mr. Berkeley Hill were appointed to examine and report on the case.

OBITUARY.

DR. ROBERT UVEDALE WEST, M.D., Etc..

Was born on July 16, at Louth, in Lincolnshire. On his mother's side he was descended from a distinguished ancestry, which may be traced to the Uvedale of Wykeham, who was the patron of William of Wykeham. The Enfield botanist who planted there the "Uvedale cedar" was an eminent member of his family, and will be recollected as the successful competitor with Sir Isaac Newton for a Fellowship at Trinity College, Cambridge. He was educated at the Grammar School, Alford, and with his father, who was Surgeon. He entered the University College and the Westminster Hospital. During his pupilage he reported Samuel Cooper's lectures on Surgery, we believe, for the late *London Medical and Surgical Journal*. Having become duly qualified, he commenced practice at Hogsthorp, a village near Alford, and married. He subsequently, in 1849, removed to Alford, where he continued to reside until his death, last week, at the age of 60. He had a very large and extensive midwifery practice, and had attended between 4000 and 5000 cases. It is remarkable that so laborious

and harassing a practice as his should have afforded him leisure for the many contributions which he made to various journals; the names of some of these we have mentioned below. Dr. West was much respected and esteemed by his friends and patients, and terminated a useful and honourable career amid the regrets of all who knew him. He was the author of many obstetrical and other papers, amongst which were "Cranial Presentations and Positions," "Illustrations of Puerperal Diseases," "A Statistical Account of Obstetric Cases in Private Country Practice," "Case of Dislocation of the Os Humeri on Dorsum of Scapula," "A Practical Inquiry into the Effects of Ergot of Rye on Fœtus in Utero." He was M.D. St. Andrews, L.R.C.P. Edin., F.R.C.S. Edin., L.S.A., and had several honorary distinctions.

WILLIAM GRIFFITH, M.D.,

Died at Brighton on the 15th inst. He carried on a large general practice for many years in Belgravia. He was educated at Guy's. He was senior Surgeon of the Royal Maternity Charity, and to the parish of St. George, Hanover-square, and Consulting Surgeon-Accoucheur to the Pimlico Dispensary for Diseases of Women and Children. He was formerly lecturer on Midwifery to the Westminster Hospital School of Medicine. He published a paper "On Hydrocephalus," and "On the Treatment of Cholera and Diarrhœa by Sulphuric Acid alone." He had been for some time in declining health.

THE LATE FRANCIS TAYLOR, ESQ., OF ROMSEY.

(From a Correspondent.)

"You have, Mr. Editor, to record the decease of Mr. Francis Taylor, Surgeon, of Romsey, which I see noticed in the *Times* of this day. Perhaps I may be allowed, though a stranger to the deceased gentleman, to contribute one sentence. A short time ago, I passed an hour at Romsey, and inspected the ancient abbey, and there, near the bottom of the nave, on the left side, was an elegant altar-tomb, bearing the sculptured figure of a child asleep, with the inscription 'It is well with the child.' A small label states that the sculpture is the work of Francis Taylor, father of the deceased child. This little fact testifying to the highly refined taste and skill of a deceased *confrère* deserves to be recorded." We may add that Mr. Taylor was the author of several ingenious methods of utilising and managing sewage, which have been noticed in our pages. He was in his 59th year, and died November 18.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 17th inst., viz.:—

Branfoot, Arthur Mudge, Kennington-park-road, student of Guy's Hospital.
Browne, Thomas Llewelyn, L.R.C.P. Edin., Bodvari, North Wales, of University College.
Coombe, George Augustus, L.S.A., Burnham, Essex, of Guy's Hospital.
Eager, Wilson, L.S.A., Guildford, of Guy's Hospital.
Griffith, Robert Poole, Port Madoc, of the Dublin School.
Harris, Arthur George Rawson, L.R.C.P. Lond., Staines, of St. Mary's Hospital.
Hill, Thomas, L.S.A., Souldern, near Banbury, of St. Bartholomew's Hospital.
Huggins, Samuel Tillcott, L.S.A., Banbury, Oxon., of St. Bartholomew's Hospital.
Jolliffe, John, L.S.A., Shepherd's-bush, of Guy's Hospital.
Paget, William Smith, Liverpool, of the Liverpool School.
Parsons, Sidney, L.S.A., Wells, Somerset, of University College.
Rees, Howell, L.S.A., Maesleg, South Wales, of University College.
Rodwell, Thomas Harry Bate, Loddon, Norfolk, of Guy's Hospital.
Waller, Walter Augustus Ewen, Bedford, of Guy's Hospital.
Warner, Francis, L.S.A., Highbury-crescent, of King's College.
Wilder, Rev. Henry Beaufoy, M.A. Oxon. and L.S.A., The Rectory, Sulham, near Reading, of the Westminster Hospital.

The following gentlemen were admitted Members on the 18th inst., viz.:—

Buchanan, Walter, L.S.A., Chatham, student of Guy's Hospital.
Bunting, James, L.S.A., Tottenham, of Guy's Hospital.
Button, Horace Gooch, L.S.A., Bermondsey, of Guy's Hospital.
Cooke, Edleston Harvey, M.B. Aberd., Jamaica, St. Bartholomew's Hospital.
Crackle, Thomas Arthur, L.S.A., Nottingham, of Guy's Hospital.
Evans, Alfred Henry, L.S.A., Stanley, near Derby, of Guy's Hospital.
Hind, Henry, L.S.A., Stockton-on-Tees, of St. Bartholomew's Hospital.
Lacey, Thos. Warner, L.S.A., Loughborough, Leicester, of Guy's Hospital.
May, Thomas, L.S.A., Bicester, Oxon., of the Westminster Hospital.
Palmer, Chas. De Montmorency, M.B. Trin. Coll. Dub., of the Dublin School.
Perrigo, James, M.D. McGill, Montreal, Canada, of the Dublin School.
Turner, Henry Crockford, L.S.A., Lewes, Sussex, of Guy's Hospital.
White, Barrington Syer, L.S.A., Lavenham, Suffolk, of King's College.

The following Members of the College passed the Primary or Anatomical and Physiological Examinations for the Fellowship at a meeting of the Court of Examiners on the 22nd inst., viz.:—

Bartleet, Thomas Hiron, Old-square, Birmingham, diploma of Membership dated February 3, 1860, of the Birmingham School.
Goodall, William Preston, Newhall-street, Birmingham, June 15, 1865, of King's College.
Ley, John William, London Hospital, November 11, 1869, of the London Hospital.
Nettleship, Edward, L.S.A., Kettering, November 17, 1868, of King's College.
Rouch, James Ryall, L.R.C.P. and L.S.A. Lond., Bradford, May 5, 1868, of St. Bartholomew's Hospital.
Roy, Gopaul Chunder, Calcutta, May 4, 1870, of the Calcutta School.
Shaft, John Adolphus, Maidstone, April 21, 1868, of Guy's Hospital.

The following gentlemen, who are not Members of the College, also passed the Examination, viz.:—

Cook, Thomas, M.D., Paris, student of St. Bartholomew's Hospital.
Doran, Alban Henry Griffiths, of St. Bartholomew's Hospital.
Harries, Thomas Davies, of Guy's Hospital.
Humphreys, Henry, of University College.
Rose, William, of King's College.
Williams, William, of Guy's Hospital.

Out of the twenty-five candidates who presented themselves for this examination, twelve were rejected.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 17, 1870:—

Archer, George Ernest, Feltwell, Norfolk.
Kay, Thomas Valentine, Bakewell, Derbyshire.
Russell, Ebenezer Geer, Pool, Cornwall.

The following gentlemen also on the same day passed their First Professional Examination:—

Dunstan, Robert, Guy's Hospital.
Jackson, James, St. Thomas's Hospital.
Matcham, Alfred, Guy's Hospital.
Turnell, Arthur Pythias, University College.
Wallis, Edward Darby, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Anderson, William, F.R.C.S. Eng. (late House-Surgeon Derbyshire General Infirmary).—Surgical Registrar to St. Thomas's Hospital.

Blyth, A. W. (King's College), M.R.C.S.E., L.S.A. Lond.—Surgeon to the Worcester Amalgamated Friendly Medical Society.

Leigh, Richmond, M.R.C.S.E., L.S.A.—Junior House-Surgeon, Liverpool Southern Hospital.

Little, William, L.R.C.P., M.R.C.S. Eng.—Senior House-Surgeon, Liverpool Southern Hospital.

Priestley, Henry, L.R.C.S. Ed., L.S.A.—Assistant House-Surgeon to the Sheffield General Infirmary.

Roberts, Wm. Lake, M.R.C.S.E., L.S.A., L.M. (Assistant House-Surgeon, Stockport Infirmary).—Additional Resident Medical Officer to the Bradford Infirmary, Yorkshire.

MILITARY APPOINTMENTS.

Royal Regiment of Artillery.—Assistant-Surgeon John Henry Hunt, from the Rifle Brigade, to be Assistant-Surgeon, *vice* Charles Gray, who exchanges.

Rifle Brigade.—Assistant-Surgeon Charles Gray, from the Royal Artillery, to be Assistant-Surgeon, *vice* John Henry Hunt, who exchanges.

Medical Department.—Staff Surgeon-Major Lionel Cowen, to be Deputy Inspector-General of Hospitals, *vice* Richard George Davys Banon, who retires on half-pay; Staff Assistant-Surgeon John James Henry, to be Staff Surgeon, *vice* Staff Surgeon-Major Henry Lionel Cowen.

BIRTHS.

Martin.—On November 18, at Cambridge House, Portsmouth, the wife of J. H. Martin, M.D., of a son.

Morton.—On November 22, at 1, Greville-road, Kilburn, the wife of Dr. T. Morton, of a daughter.

Murray.—On November 18, at 17, Green-street, Grosvenor-square, the wife of Gustavus C. P. Murray, M.D., of a daughter.

MARRIAGES.

Burke—O'Brien.—On November 21, at the Catholic church, Rathmines, Dublin, Joseph Burke, Deputy Inspector-General of Hospitals, to Susan Fraser, youngest daughter of the late Charles R. Frazer Frujelle, of Stapolin, county Dublin, widow of the late Thomas O'Brien, M.D., of the Bengal Medical Service.

Burch—Robertson.—On November 16, at Birchanger, Essex, Sampson Kingsford Burch, M.R.C.S., of 239, Vauxhall-bridge-road, S.W., second son of the late T. Lever Burch, Esq., of Canterbury, to Mary A., eldest daughter of Richard H. Robertson, M.D., The Mount, Birchanger.

Wetherman—Gibbs.—On November 17, at St. George's, Hanover-square, Alfred Patrick, youngest son of John Wetherman, jun., Esq., of Tynedall's-park, Bristol, to Ellen Catherine Napier, second daughter of John Hill Gibbs, M.D., Strand House, Topsham, Devon.

DEATHS.

BRABANT, ELIZABETH, widow of R. H. Brabant, M.D., at Bath, on November 19, in her 89th year.

DOW, JOHN, M.R.C.S.E., of 49, Newgate-street, at Keith, where he had gone for the benefit of his health, on November 21.

EARLE, JAMES LUMLEY, M.D., youngest son of the late Lieutenant-Colonel Earle, of the Indian army, at 92, Newhall-street, Birmingham, on November 23.

FOX, EMILY, the beloved wife of Wilson Fox, M.D., of 67, Grosvenor-street, London, at the residence of Henry O'Donoghue, Esq., Long Ashton, Bristol, on November 20, after a very brief illness.

FRANKS, MOSES, M.R.C.S. and L.S.A., late of Heckington, Lincolnshire, at his residence, 28, Caversham-road, N.W., on November 16, aged 68.

GARRETT, WILLIAM JAMES, M.B. Lond., Medical Officer of the R.M.S. Packet Company's ship *Shannon*, on October 11, of congestion of the lungs, aged 24.

KENNY, JOSEPH, M.D., late of Stoke Newington, London, at his residence, Vernon Lodge, St. Aubin's, Jersey, on November 16, aged 64.

KNIPE, ISABELLA OLIVIA, daughter of John Copeland Knipe, Surgeon H.M.'s 36th Regt., at Rawul Pindee, Punjaub, on October 15, of fever, aged 6 months.

LIVINGSTONE, CHARLES HUSBAND, F.R.C.S.E., at Buckhurst-hill, Essex, on November 19, aged 33.

MORISON, MARGARET, eldest daughter of the late Sir Alexander Morison, M.D., at Johnsburn, Balerno, N.B., on November 17.

PICKEN, ALGERNON, the infant son of Dr. R. Picken, R.N., at Sheerness, on November 19, aged 9 months.

ROBERTS, ELIZABETH ANNE, the wife of Dr. Roberts, of 56, Manchester-street, W., on November 19.

TAYLOR, FRANCIS, Surgeon, at Romsey, Hampshire, on November 18, suddenly, aged 59.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—House-Surgeon; must be duly qualified and registered. Applications and testimonials to the Hon. Secretary on or before December 1.

EVESHAM UNION.—Medical Officer for the Third District; candidates must be duly qualified and registered. Applications and testimonials to John W. Adams, Esq., Clerk, on or before December 12.

FARRINGDON DISPENSARY, BARTLETT'S-BUILDINGS.—Resident Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. S. Green, Hon. Sec., 10, St. Swithin's-lane, London, on or before December 3, 1870.

GUISBOROUGH UNION.—Medical Officer for the Danby District; candidates must be duly qualified and registered. Applications and testimonials to Wm. Weatherill, Esq., Clerk, on or before December 13. Election the same day.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, W.—Visiting Physician; must be M.R.C.P.L. Applications and testimonials to the Secretary, on or before December 7.

KING'S COLLEGE, LONDON.—Demonstrator of Chemistry. For further particulars, apply to J. W. Cunningham, Esq., Secretary.

LINCOLNSHIRE COUNTY ASYLUM.—Assistant Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Dr. Palmer, at the Asylum, Bracebridge, Lincoln, on or before December 3. The duties will commence on the 17th.

LIVERPOOL SOUTHERN HOSPITAL.—Honorary Physician; must have a Medical qualification, and must not be engaged in the practice of Surgery, Pharmacy, or Midwifery. Applications and testimonials to G. H. Horsfall, Esq., on or before Nov. 29. Election the following day.

MANCHESTER ROYAL INFIRMARY.—Senior House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Weekly Board on or before December 10.

MARYLEBONE.—District Medical Officer for the St. John's Registration District; candidates must be duly qualified and registered. Applications and testimonials to the Clerk, St. Marylebone Workhouse, on or before the 26th inst.

MORPETH DISPENSARY.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before November 25. Election on December 9.

POPLAR HOSPITAL.—Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary, on or before November 29. Election on December 7.

REETH UNION.—Medical Officer for the Muker District. Candidates must be duly qualified and registered. Applications and testimonials to James R. Tomlin, Clerk, on or before December 2.

STOCKPORT INFIRMARY.—Assistant House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Hon. Secretary, on or before December 1.

WEST DERBY UNION.—Assistant Medical Officer. Candidates must be duly qualified. Applications and testimonials to Mr. W. Cleaver, Union Clerk, West Derby, Liverpool, on or before the 29th inst.

WESTERN GENERAL DISPENSARY.—Resident Dispenser and Assistant; must be fully competent for the office. Applications and testimonials to the Secretary on or before December 9.

WESTERN GENERAL INFIRMARY.—Physician; must be F. or M.R.C.P. Lond. Applications and testimonials to the Secretary on or before November 28. Election on December 7.

WISBEACH UNION.—Medical Officer for the Twelfth District; candidates must be duly qualified and registered. Applications and testimonials to G. D. Collins, Esq., Clerk, on or before November 30. Election on December 1.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Aylesbury Union.—The Seventh District is vacant; area 11,110; population 1616; salary £50 per annum.

Manchester Township.—Mr. Richard D. Fox, Assistant Medical Officer at the new Workhouse, has resigned; salary £170 per annum.

Wisbeach Union.—The Twelfth District is vacant; area 11,271; population 3132; salary £50 per annum.

APPOINTMENTS.

Bury Union.—Archibald B. Telford, L.R.C.S. Edin., M.D. Univ. Glas., to the Pilkington District.

Metropolitan Asylum District.—James Adam, L.R.C.S. Edin., M.D. St. And., to the Caterham Asylum for Imbeciles.

MEDICAL MAYORS FOR 1870-71.—Joseph May, F.R.C.S. Eng., for Devonport; Richard Ley, M.R.C.S. Eng., for South Molton; Forteseue John Morgan, M.R.C.S. Eng., for Stamford; John Tibbitts, M.D. Univ. St. And., for Warwick.

DUBLIN OBSTETRICAL SOCIETY.—Dr. Johnston, President of the Society, and Master of the Dublin Lying-in Hospital, received the members and a large number of visitors at a *conversazione*, on the evening of Thursday week, at his residence in the Hospital.

APOTHECARIES' HALL, DUBLIN.—The Governor and Council have selected "The British Pharmacopœia" as the subject of examination for the annual prize of two guineas, to be competed for by apothecaries' apprentices in 1871. The examination will be held at the Hall on the first Monday and Tuesday in the month of May.

DEATH RATE OF SCOTLAND.—16,555 deaths were registered in Scotland during the third quarter of 1870, being in the annual proportion of 205 deaths in every ten thousand persons of the estimated population, or 2·05 per cent. The mean death-rate of the quarter during the ten previous years was 195 deaths in every ten thousand persons, or 1·95 per cent.; so that the mortality of the past quarter has been above its average.

HOSPITAL SUNDAY.—The annual collections in behalf of the Richmond Infirmary were made on Sunday last in the town and neighbourhood of Richmond, and amounted to £140—a very serious diminution from last year, when the sum of £217 was realised from the same source. Some of the collections have been put off till next year, and most of them considerably lessened by the spontaneous outburst of charity which has been called forth by the sufferings of the wounded in the Continental war.

DR. JOLLY has been presented with a gilt time piece, bearing the following inscription:—"Presented to Robert Jolly, M.D., F.R.C.S.E., and M.R.C.S.L., by the officers and men of the Edgbaston division of police, as a mark of their esteem on his retiring from the office of House-Surgeon to the Queen's Hospital, Birmingham, November 18, 1870."

ZYMOTIC DISEASES IN SCOTLAND.—In the quarter ending September 30, scarlatina and hooping-cough were the prevalent epidemics among children; and though in some cases the former put on its worst type, and in one reported case cut off five children in one family, in general it was mild, and not not more fatal than usual. Measles was not prevalent anywhere, and of a mild type. Small-pox was excessively rare, and chiefly confined to the principal towns. Typhus and enteric fevers were not more common than usual, the former being most prevalent in the town, the latter in the rural districts. Diphtheria appeared to be rather on the increase.

GLASGOW UNIVERSITY MEDICAL SOCIETY.—The annual business meeting of the above Society was held in the University on November 17. The Secretary read the annual report, from which it appeared that the Society is in a very flourishing condition, having doubled its membership during the year, and a large surplus remains in the hands of the Treasurer. After a vote of thanks to the retiring office-bearers, the following gentlemen were elected for the current year:—*Honorary President*, Professor Dickson; *President*, Robert Sinclair; *Vice-Presidents*, William Sneddon, and James Glendenning; *Corresponding Secretary*, G. B. Clark; *Secretary*, John Highet; *Treasurer*, Robert Murdoch; *Committee*, W. C. Watt, James Smith, Wm. Grant, Hugh Miller, Wm. Leith, George Thomson, and James Adams. The proceedings closed with a vote of thanks to the Chairman.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—On Friday, November 11, 1870, the second meeting of the session of the above Society was held; Dr. Clapton, President, in the chair. Dr. Carr read a paper "On Purgatives, their Good and Evil." In his opinion, purgatives, when given with judgment, were of great value, notwithstanding their almost universal condemnation at the present time, and the evil they were capable of doing in the hands of the unskilful. After briefly reviewing the anatomy and physiology of the various organs

engaged in alimentation and assimilation, he passed on to consider the proper food of man, taking his teeth as a guide. He was of opinion that proper dietetic and hygienic measures were capable of effecting a great deal, and gave a very full account of the different aliments useful in habitual costiveness, dwelling especially on the power of habit in producing a daily or bi-daily evacuation, failing which, he considered, no individual could be said to enjoy health. The various purgative drugs were then reviewed, and the different diseased states in which they were of service pointed out, preference being given to laxatives, saline aperients, and enemata. Passing on to the evils of purgatives, Dr. Carr enumerated the cases in which they should not be given, and expressed a strong opinion that they should be carefully avoided in acute constipation with severe abdominal pain and sickness, where there is a rise of three or four degrees in the temperature; reliance on these cases should be placed on opium combined with belladonna. A discussion ensued, in which Dr. Gooding, Dr. Thorowgood, Dr. Clapton, Dr. Lockhart, Dr. Purvis, Dr. Creed, etc., took part. Dr. Gooding exhibited under the microscope several interesting specimens of pediculi. A vote of thanks was unanimously accorded to Dr. Carr for his very able paper, and to Dr. Gooding for his specimens, and the Society adjourned.

The Royal Society.—The annual election of the Council and officers will take place as usual on St. Andrew's-day (the 30th inst.), when the following gentlemen will be balloted for the respective offices, viz.:—*President:* General Sir Edward Sabine, K.C.B. *Treasurer:* *William Spottiswoode, M.A. *Secretaries:* William Sharpey, M.D., and G. G. Stokes, M.A. *Foreign Secretary:* Professor W. H. Miller, M.A. *Other Members of the Council:* *George Burrows, M.D.; *Heinrich Debus, Ph.D.; *P. M. Duncan, M.B.; Sir P. de M. Grey Egerton, Bart.; *Professor G. C. Foster, B.A.; *Francis Galton; *J. P. Gassiot; *J. D. Hooker, C.B., M.D.; William Huggins; *Professor G. M. Humphry, M.D.; J. G. Jeffreys; *Sir John Lubbock, Bart.; C. W. Siemens; Professor H. J. S. Smith, M.A.; Professor John Tyndall, LL.D., and Professor A. W. Williamson, Ph.D. The Fellows in the above list to whose names (*) appear, were not members of the last Council.

Small-pox in the Metropolis. — An important report was presented at the meeting of the Metropolitan District Managers, in the Board-room of the Board of Works, Spring-gardens, on Saturday—Dr. Brewer, M.P., in the chair —on the subject of the increase of small-pox. It is stated that the committee had had under consideration the question of the propriety of opening the temporary Hospital at Hampstead for the reception of small-pox cases, but, before deciding upon the question, they had obtained from the Poor-law Board, the Privy Council, and other sources, the fullest confirmation of the necessity of some additional accommodation. They learned from the Poor-law Inspector, Dr. Brydges, that not only is the Small-pox Hospital quite full, but that there are at this moment more than 200 cases being treated either at the homes of patients or in the workhouses of the metropolis. As there was reason to believe that two or three months would elapse before the Hospitals at Homerton and Stockwell would be prepared for the reception of inmates, the committee, with the full assent of the Poor-law Board, recommended that they be authorised at once to open the temporary Hospital at Hampstead, and be granted full powers to engage the officers and nurses. A resolution was at once adopted granting the powers required by the committee. Several members of the Board stated that small-pox had alarmingly increased in their districts. Dr. Harvey, of Islington, said in that parish thirty-eight deaths occurred during the month of October from this disease.

Health of Newcastle.—Dr. Philipson, in his able and elaborate Third Report of the Health of Newcastle and Gateshead for 1870, says—"The annual rate of mortality in Newcastle has varied from 34 to 13 per annum to 1000 persons living, the former being the number for the third week of August, and the latter that for the third week of April. The average of the first thirteen weeks is 22, against 27, the average of the corresponding period of 1869, and 24 of 1868, and the average of the last thirteen weeks is 24, against 23, the average of the corresponding period of 1869, and 26 of 1868. The total of the deaths registered from all causes in Newcastle has fluctuated between 88 and 34, the former being the number for the third week of August, and the latter that for the third week of April. In the corresponding period of 1869, the numbers varied between 88 and 42; and in 1868, between 76 and 44. Of the 1578 individuals who died during the six months, 484 were under one year of age, and 287 were sixty years of age and upwards, leaving 807 for the years of age intermediate. From general diseases, dependent upon a morbid condition of the blood, during the first thirteen weeks, 25 deaths occurred in the public practice of Newcastle, and 60 in the private; and 7 in the public practice of Gateshead; and during the last thirteen weeks, 20 deaths occurred in the public practice of Newcastle, and 131 in the private; and 3 in the public practice of Gateshead. The total of the deaths in the public practice of Newcastle from this class of diseases amount to 45, against 50, the total for the corresponding period of 1869, and 62 of 1868. From fever, during the six months, 40 deaths occurred in Newcastle, 21 in the public practice, and 19 in the private; and 10 in the public practice of Gateshead. From phthisis, during the six months, 53 deaths took place in the public practice of Newcastle, against 59 in the corresponding period of 1869, and 64 in that of 1868; and in Gateshead, 15, against 14 in the corresponding period of 1869, and 11 in that of 1868.

Learned Societies.—Dr. Guy, in a recent paper "On the Claims of Science to Recognition and Accommodation by the Government," gives the following list of scientific societies, and the dates of their foundation:—The first was the Royal College of Physicians, founded by Linacre in 1518; the second, the Society of Antiquaries, founded by Archbishop Parker in 1572, but afterwards in abeyance till 1707; the Royal Society was founded in 1660, and except a similar society at Rome is the oldest of its kind in Europe. Next in order come the Society of Arts (1753), the Physical Society of Guy's Hospital (1772), the Medical Society of London (1773), and the Linnæan Society (1788). The first quarter of the present century witnessed the formation of the Royal Institution (1800), the Horticultural Society (1804), the Medical and Chirurgical (1805), the Geological (1807), the Institution of Civil Engineers (1818), the Royal Astronomical (1820), the Royal Medico-Botanical (1821), the Royal Society of Literature and the Royal Asiatic (1823)—nine societies in all. During the second quarter of the century, the Zoological Society (1826), the Incorporated Law (1827), the Royal Geographical (1830), the British Association for the Advancement of Science and the United Service Institution (1831), the Provincial Medical Association (1832), the Entomological (1833), the Royal Institute of British Architects and the Statistical Society (1834), the London Electrical (1835), the Botanical and the Numismatic (1836), the Royal Botanic and the Microscopical (1839), the Pharmaceutical and the Chemical (1841), the Philological (1842), the Ethnological, the Archæological Association, and the Archæological Institute, with the Sydenham (1843), the Syro-Egyptian, the Ray, and the Wernerian (1844), the College of Chemistry (1845), the Cavendish (1846), the Palæontological (1847), the Institute of Actuaries (1848)—in all twenty-eight Societies. Since 1848 several other Societies have been founded—as, for instance, the Epidemiological Society, in 1850, and one deserving of special mention, the Social Science Association in 1857, and since maintained in active usefulness through the exertions of Mr. G. W. Hastings. Several of these Societies have received grants of apartments by the Crown; specially the Royal Society, the Society of Antiquaries, the Geological Society of London, the Royal Astronomical Society, and the Chemical Society. The Royal Asiatic Society and the Royal Geographical Society have also received money grants. Dr. Guy then advocated the claims of the four principal institutions connected with social science—namely, the Statistical Society, the Institute of Actuaries, the Juridical Society, and the Social Science Association—to the grant by Government of a site upon the Thames Embankment, a plan for which has been prepared by Mr. Bellamy, and stated that, if such a site can be procured, a building fund will not fail to be contributed by the members of those four Societies.

Collegiate Examinations.—At the recent Pass Examination for the diploma of Membership of the Royal College of Surgeons, ninety-three candidates presented themselves, to whom the following questions on Surgical Anatomy and the Principles and Practice of Surgery, for the written examination, were submitted, viz.:—1. Describe the course and relations of the left common iliac artery, and the steps of an operation required to secure it. 2. Define a sinus, and explain what are the obstacles to its healing. Describe the various modes of treating sinuses under different circumstances, and give your reasons for adopting any particular method of treatment. 3. State the boundaries of the popliteal space, and the relative situation of the parts contained within it. 4. What are the diagnostic signs of chronic rheumatic arthritis of the

hip-joint? Describe the pathological changes observed in such cases after death. 5. Describe the course of the brachial artery, pointing out its relative position with respect to the contiguous muscles, nerves, and veins. 6. What are the local signs most probable cause, and proper treatment of postpharyngeal abscess? To the forty-six candidates examined also in the principles and practice of Medicine, the following questions were submitted on the written examination—viz., 1. Describe the symptoms characterising the passage of a gall-stone, and also those observed during the passage of a urinary calculus into the bladder; also state how you would treat each case. 2. Mention the commonest forms of cutaneous disease of the scalp in children, and their treatment. 3. State the preparations of arsenic and antimony contained in the British Pharmacopœia, with their doses; write a prescription in full for a case of bronchitis, a case of diarrhœa, and a case of vomiting. Out of the ninety-three candidates examined, eleven were referred in Surgery, five in Surgery and Medicine, and six in Medicine; and of the additional six who went in for Medicine only, having previously passed in Surgery, four were rejected. The following analysis of the qualifications held by the candidates may, perhaps, be interesting:—L.S.A., 25; M.B. Lond. and L.S.A., 1; M.A. Oxon and L.S.A., 1; L.R.C.P. Lond., 2; L.R.C.P. Edin., 2; M.D. and F.R.C.S. Edin., 1; M.B. Cantab, 1; M.B. Edin., 2; M.B. Dub., 1; M.D. Dub., 1; M.B. Aber., 1; M.D. Philad., 1; and M.D. M'Gill, Montreal, 1. The names of the successful candidates are published in another page. In the primary, or anatomical and physiological, examination for the Fellowship of the College, there were twenty-five candidates—viz., eight seniors, whose diplomas of Membership ranged from 1844 to 1860; nine juniors, from 1866 to the present year; one who had not obtained Membership; and seven candidates who had passed the primary examination for the Membership of the College. Of the eight senior Members, no less than six were rejected; of the nine junior Members, four were rejected; and of those who had passed the primary examination for the Membership, two failed for the Fellowship. The following were the questions for the written examination in anatomy and physiology—viz., 1. Give the anatomy of the perineum in the male; and describe the dissection required to display all the parts contained in it. 2. Describe the process of respiration under the following heads:—(*a*) The mechanism by which the acts of inspiration and expiration under ordinary circumstances are effected. (*b*) By what means, and in accordance with what physical laws, is the air within the lungs changed? and what are the changes observed in the expired air? (*c*) Whence are the various additional components found in the expired air derived? 3. Describe the course and relations of the internal maxillary artery; and give the dissection necessary to expose it. Trace, also, to their distribution its several branches, in the order in which they arise. 4. Give an account of the forces by which the systemic circulation is carried on; and of the mechanism of the heart's action. State also the sources whence that organ derives its nerves, their mode of distribution in its substance, and the way in which they are supposed to influence its action. 5. Describe the diaphragm—its attachments, relations on both surfaces, structure, and openings. Also state whence its blood-vessels and nerves are derived, and the mode in which they are distributed. 6. Describe the minute structure and general arrangement of the lacteals, and of the lymphatic vessels and glands. What is the principal difference between absorption by the lymphatics and by the blood-vessels respectively? Also state the general physical laws under which absorption takes place. At the Second or Pass Examination in Pathology, Therapeutics, and Surgery, on Wednesday, the 23rd inst., the following questions were submitted to the eleven candidates, viz.:—1. What form of cancer most usually affects the tongue? Give the distinctive appearances presented to the naked eye, and its microscopical characters. Describe its course and treatment. 2. Enumerate the various kinds of cystic tumours met with in the neck. Describe their nature, diagnosis, and treatment. 3. Describe the various forms of mortification, and the causes upon which they severally depend. 4. Describe the minute changes which articular cartilage undergoes in the process termed "ulceration." 5. State the various causes of intestinal obstruction. Give the diagnosis and treatment in each case. 6. What is understood by the term "adenoid"? Describe the general characters and minute structure of tumours of this kind, their usual site, and the proper treatment.—The result of this examination cannot be known until the report from the Court of Examiners has been submitted to the Council.

Provincial Medical Schools.—The annual return of the number of students pursuing their Professional studies at the provincial Medical schools has just been made to Dr. Cursham, the Government inspector of these schools, from which it appears that the total number amounts to 357, being an increase of 27 over the number of last year. The return from the Cambridge University School has not yet been received; this will only slightly augment the gross number. The following is the number at the undermentioned schools, viz.:—

Manchester Royal School of Medicine and Surgery	98
Birmingham " " "	76
Liverpool Infirmary and School of Medicine and Anatomy	58
Leeds School of Medicine	46
University of Durham College of Medicine, Newcastle-on-Tyne	35
Bristol Old Park Medical School	30
Sheffield Medical Institution	14
	357

In addition to the above there are, of course, a few more students who have entered at the different schools, but are not eligible for registration, not having yet passed a preliminary examination in Arts, etc., and others who, having completed their studies for Membership, are still pursuing them for the Fellowship of the Royal College of Surgeons. From the following it will be seen that the total number of students now pursuing their Professional studies in this metropolis and the provinces is steadily increasing, although there is this year a decrease in some of the provincial schools, with more than a corresponding increase in others:—

Years.	Metropolitan Schools.	Provincial Schools.	Total.
1860	1128	333	1561
1861	1116	258	1374
1862	1045	248	1293
1863	1020	214	1234
1864	995	247	1242
1865	1013	249	1262
1866	1027	258	1285
1867	1125	257	1382
1868	1194	284	1478
1869	1231	330	1561
1870	1324	357	1681

The increase in the gross number at the metropolitan schools over the number published a few weeks since in the *Medical Times and Gazette*, has been occasioned by the authorities at the College of Surgeons allowing several gentlemen who have lately returned from the seat of war to register as pursuing their studies from the commencement of the present session—a concession at which no one would be so unjust as to complain.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Morgan on Duality of Venereal Sores, next week. Lectures and papers by Mr. Walton, Dr. Fayrer, Dr. Johnson, Dr. Fenn, Dr. Woodman, and Mr. Lawson Tait are in type.

Obstetrician.—There will be an examination for the "L.M." early in the ensuing month. See our advertising columns of the present week.

Victimised should consult some respectable Surgeon in his own locality. The case is quite amenable to treatment.

J. C.—The work was edited at first by Dr. Herbert Barker, of Bedford, and subsequently by Dr. Tindal Robertson.

Puerperal (Notts) can obtain the work by order of any bookseller.

R. N.—The number of vacancies will be declared, and the time of examination duly stated in the *Medical Times and Gazette.*

Studens.—Samuel Cooper's "Surgical Dictionary," and his "First Lines of Surgery."

Thrasybulus.—Our correspondent has mistaken the gist of our remarks. We think, in common with many other people, that it would be a more handy, expeditious, and economical process for verifying the cause of death, to employ one skilled Medical Officer of Health, than to continue the clumsy and costly farce of a coroner's jury. Let us suppose the case of death of a dry-nursed infant, who has died without Medical attendance, or to whom a Practitioner was called in at the last minute only; an inquiry by a Medical officer would find out whether due care had been taken or not, and whether or not there were *primâ facie* grounds for the interference of the legal authorities. The Medical officer would be witness, not prosecutor.

A Pupil.—In Squire's work on the Pharmacopœia.

A Yorkshire Apprentice.—It is not the duty of an apprentice to perform menial offices like those specified. He can legally resist, and should consult a neighbouring magistrate.

Tempus Fugit.—It is not too late to enter the Profession. Several men who rose to great eminence entered on their studies somewhat late in life.

POSTAGE OF LETTERS TO THE SEAT OF WAR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As many English with the German army in France have had their letters from England lost, I would suggest the persons writing to friends with the German army in France should address their letters *viâ* Prussia, so as to avoid the possibility of their being sent by a French route.

I am, &c.,

GUSTAV ADOLPH ABRATH, M.D., &c. (of Sunderland),
Königlicher Preussischer Etappen arzt, in the 3rd Army in Epernay.
(*Viâ* Prussia), Bureau at the Railway-station.
Epernay, November 16.

*** Dr. Abrath also encloses a letter, a copy of which has appeared in the *Times*, stating that he is willing to receive subscriptions for the numerous destitute English clerks and servants who are on their roundabout way from France to England.

THE O. W. FUND.

The following additional subscriptions to the O. W. Fund have been paid or promised:—

— Traherne, Esq. ...	...	£1	1	0	Dr. Evans, Birmingham...	£3	0	0
G. Pollock, Esq. ...	...	2	2	0	Dr. Berry " ...	1	0	0
Dr. J. H. Paul ...	...	1	1	0	Dr. Clayton " ...	1	0	0
Dr. A. P. Steward	...	2	2	0	Dr. Barker " ...	1	0	0
T. Heckstall Smith, Esq...		3	3	0	Dr. Russell " ...	1	0	0
Dr. Bell Fletcher ...	...	2	0	0	Dr. Williams " ...	0	10	0
G. Britten, Esq. ...	...	1	0	0	— Tilleard, Esq.	2	2	0

Dr. Richardson begs to acknowledge the following additional contributions:—

Sir Wm. Fergusson, Bart.	£1	1	0	Alfred Cooper, Esq. ...	£1	1	0
W. Roberts, Esq.	1	0	0	Dr. Griffiths, Camberwell	1	1	0
Dr. Whiteman, Putney ...	0	10	6	A friend of Dr. Richardson's	10	10	0
Dr. Parkes, F.R.S., Notley	2	0	0	H. Veasey, Esq., Woburn	1	0	0
R. Cecly, Esq., Aylesbury	1	1	0				

COMMUNICATIONS have been received from—

Dr. R. A. WARWICK; Dr. ABRATH; Mr. J. MORGAN; THRASYBULUS; Dr. PHILIPSON; Dr. SYSON; Dr. STOTHARD; Dr. BALFOUR; Dr. WAHLTUCH; Dr. B. E. COTTING; L.R.C.P.; Mr. C. E. HAADYMAN; Mr. J. CHATTO; Mr. LAWSON TAIT; Dr. MOXON; Dr. BALLARD; Mr. H. ARNOTT; Mr. HAYNES WALTON; Dr. PLAYFAIR; Dr. LAVIES; Mr. G. B. CLARE; VINDEX; Mr. H. PRIESTLEY; Mr. W. ANDERSON; Mr. A. COBRIE; Dr. WILLIAM OGLE; AN OXFORD MAN; Dr. MCCORMACK; Mr. A. W. BLYTH; Dr. J. W. HILLES.

BOOKS RECEIVED—

H. Sewill's Irregularität und Krankheiten der Zähne—Photographic Review of Medicine and Surgery, Philadelphia, vol. i., No. 1—New York Medical Journal, No. 68—Report of the Sanitary Administration of the Punjaub—Furneaux Jordan on the Treatment of Surgical Inflammations—The Dental Diploma Question, by Charles James Fox—Dr. Tilt on the Change of Life in Health and Disease, Third Edition.

NEWSPAPERS RECEIVED—

Pharmaceutical Journal—Nature—Woodhill and Claflin's New York Weekly—New York Medical Gazette—Liverpool Daily Courier—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

November 26. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

28. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. Spencer Watson, "On Squint, with an Analysis of 119 Cases."

29. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

30. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

SOCIETY OF ARTS, 8 p.m. Meeting.

December 1. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

2. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 19, 1870.

BIRTHS.

Births of Boys, 1108; Girls, 1070; Total, 2178.
Average of 10 corresponding weeks, 1860-69, 2015·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	821	818	1639
Average of the ten years 1860-69	759·4	727·0	1486·4
Average corrected to increased population	...	...	1635
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	1	13	28	1	5	...	9	1	5
North ...	618210	14	6	42	1	10	6	6	1	4
Central ...	383321	...	2	19	...	1	...	1	3	...
East	571158	26	7	18	1	6	2	1	2	6
South... ...	773175	4	8	55	7	6	4	5	6	3
Total	2803989	45	36	162	10	28	12	22	13	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·217 in.
Mean temperature	37·6°
Highest point of thermometer	48·8°
Lowest point of thermometer	24·3°
Mean dew-point temperature	34·8°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·18 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 19, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Nov. 19.	Deaths Registered during the week ending Nov. 19.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2178	1639	48·8	24·3	37·6	3·11	0·18	0·45
Portsmouth ...	122084	12·8	73	41	51·4	28·6	40·2	4·55	0·53	1·35
Norwich	81087	10·9	52	52	45·7	30·5	36·7	2·61	0·34	0·86
Bristol	171382	36·6	118	102	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	55	28	45·9	26·1	36·2	2·33	0·47	1·20
Birmingham ...	369604	47·2	255	159	46·1	29·3	38·0	3·33	0·40	1·02
Leicester	97427	30·4	57	55	45·5	28·2	36·0	2·22	0·56	1·42
Nottingham ...	88888	44·5	67	52	45·1	27·1	35·8	2·12	0·31	0·79
Liverpool	517567	101·3	353	386	47·0	27·5	39·0	3·89	0·90	2·29
Manchester ...	374993	83·6	270	192	...	...	...	...	...	...
Salford	121580	23·5	78	64	48·2	25·6	36·0	2·22	0·62	1·57
Bradford	143197	21·7	84	66	44·3	29·5	36·1	2·28	0·62	1·57
Leeds	259527	12·0	183	162	44·0	30·0	36·4	2·44	0·44	1·12
Sheffield	247378	10·8	182	101	46·0	27·7	37·0	2·78	0·30	0·76
Hull	130869	36·7	74	52	...	...	...	...	...	...
Sunderland ...	100979	30·5	83	45	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	87	75	41·0	31·0	35·9	2·17	0·38	0·96
Edinburgh	178970	40·4	+126	+74	44·7	33·0	38·7	3·72	0·30	0·76
Glasgow	468189	92·5	+353	+219	44·4	30·4	37·6	3·11	0·92	2·34
Dublin (City, etc.*)	321540	33·0	144	120	47·0	28·0	38·3	3·50	0·56	1·42
Total of 20 Towns										
in United Kingd'm	7216325	33·8	4872	3684	51·4	24·3	37·2	2·89	0·49	1·25
Paris—Week ending Nov. 19	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Nov. 12 ...	622087	167	...	314	...	...	38·5	3·62	...	...
Berlin—Week ending Nov. 17 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·217 in. The highest barometrical reading was 29·49 in. on Friday morning, and the lowest was 28·98 in. on Monday afternoon and Tuesday morning. The general direction of the wind was W.S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

† No return of births and deaths having been received either from Edinburgh or Glasgow, averages of the numbers in the six previous weeks have been used to make up the totals for the twenty towns.

ORIGINAL LECTURES.

LECTURES ON OPHTHALMIC SUBJECTS.

SELECTIONS FROM SHORT LECTURES GIVEN WEEKLY TO THE STUDENTS IN ATTENDANCE AT THE OPHTHALMIC DEPARTMENT AT ST. MARY'S HOSPITAL.

By HAYNES WALTON,

Surgeon to the Hospital, and Surgeon in charge of the Ophthalmic Department of the same; late Surgeon to the Central London Ophthalmic Hospital.

CATARACT.

(*Continued from page* 359.)

GENTLEMEN,—I shall not describe the several operations for cataract in detail. You will have ample opportunities of witnessing the various steps of the several methods which I adopt; but there are many practical points which require to be treated of in a systematic manner.

For hard cataract, I invariably practice the operation for extraction through the cornea, as I believe, from my own experience and observation, that a better average result can be obtained than by any of the plans which have been tried during the last few years, in one of which a section is made of the sclerotica—the so-called modified linear extraction.

There are certain dangers to the eye attendant on extraction which can never be overcome. So long as there exists the necessity for extracting a hard atrophied lens, so long must the eye be subject to risks more or less fatal to it. It is to avoid these, or to reduce them, that men are praiseworthily trying different methods of operating.

Unfortunately, such efforts have not been successful. I speak in this manner after a thorough investigation of the subject, and with the fullest desire to do the best for my patients, and to advance my own interests.

I will give you to-day a few hints about after-treatment. The very first act after the operation should be to close the eyelids with a couple of strips of court-plaster, about an inch and a half long and a quarter of an inch wide. This insures adaptation of the wound, and supports the corneal flap. Besides this, the atmosphere is excluded, and the eye is rested. It is the simplest appliance by which the eye can be kept closed, and such closure accomplishes all that can be done for the wound without disadvantage. The tears and the aqueous humour readily escape, because some portions of the edges of the eyelids are uncovered. Bandages and compresses of all kinds are injurious. They are hurtful in proportion to their action. All pressure, beyond that which is naturally produced from closing the eyelids, must tend to be prejudicial, and, at times, to be positively damaging. Again, whatever keeps the eye hot must be bad—whatever soaks up the secretions is objectionable. I am well aware, from personal observation, that some Surgeons pack the eye with cotton wool or charpie, and subsequently apply a bandage. The system is very like the French method of treating a stump after an amputation. It is notorious how a French Surgeon packs and bandages until the limb has pounds of material over it. I fully believe that my plan insures the highest attainable result that can be reached.

Whenever it seems necessary to protect the eye from blows from the patient's own hands, a stiff square shade, reaching from one temple to another, padded where it touches the head, and kept in position by an elastic band, will suffice. Calkin's eyeshade answers the purpose very well.

I believe it to be important that the patient be well fed, and therefore I allow him a full diet. Of course, he is carefully fed by the nurse, and does not make any exertion. It is a mistake to prescribe liquid food under the idea that chewing is hurtful to the eye, for in man the muscles of mastication cannot in any way influence the eyeball. It is different in most of the lower carnivora.

From day to day the corners of the eyelid and the cheek should be carefully cleansed. The patient should be kept in bed for the greater part or the whole of the week, but not necessarily between the sheets. When the bed is left, there is always a risk of imprudent acts. You must have observed that the principles of treatment of my ophthalmic operations differ in nowise from those of my operations in general Surgery. When I amputate a leg I do all I can to secure adaptation of the flaps, and to insure rest, by applying a splint under the limb, and I am scrupulously careful to avoid all unnecessary disturbance, all strain on the parts that are placed in apposition. Very little movement will spoil the healing of the eye or the limb.

When seven clear days have passed without unfavourable symptoms, success is pretty certain, and the plasters may be removed after they have been thoroughly softened with warm water. Then I try the sight by putting the patient's back to the light, and guarding the eye while he looks at something held before him. At the same time I endeavour to ascertain whether the cornea has healed. If the chambers of the eye be filled with aqueous fluid, union must have taken place. When everything is satisfactory the plasters need not be reapplied, but if otherwise, they are required. There may be simply delay in the healing, in which case the eyelids require to be closed as much as at first.

The pernicious practice of opening the eye a few days after the operation cannot be too strongly deprecated. The examination is quite useless if the eye be doing well; if otherwise, it is certain to aggravate any evil, and in no instance can it disclose symptoms for guidance more certain and more valuable than those of the patient's sensations and the state of the eyelid. A red and puffy eyelid is a sure indication of an inflammatory state of the eyeball, with an absence of proper repair in the corneal wound. Besides this, the angle of the cheek gets œdematous.

This after-treatment, which may be said to be purely mechanical, is really all that can be done for a patient; and when the cornea does not heal kindly, the case is never perfectly successful, do what you may, and in most instances the eyeball is somewhat damaged, and only an imperfect result as regards vision is obtained. The very best sight is never got except the pupil be round and central, or nearly central. It is not enough for a patient to be able to read the smallest type under certain favourable conditions of light and position; he may do this with an irregular and displaced pupil. I want more: I wish him to be able to face a bright light without distress, and to get the light admitted to the centre of the retina, for both of which the pupil must be of the natural size, or nearly so, and central.

I will mention concisely the unfavourable conditions which may ensue:—Hæmorrhage from the interior of the eyeball, irrespective of any loss of the vitreous humour; non-union of the cornea, in part or in whole, with prolapse of the iris; the giving way of the cornea after it has healed; acute inflammation of the eyeball, as a direct consequence of the operation; sub-acute inflammation coming on several days after the operation, which is far more common than the acute; inflammation of the entire eyeball, with suppuration. Each of these conditions require careful study and dissimilar treatment. It is not my intention to dilate on them. I may say, in a few words, that nothing is gained for the eye by violent antiphlogistic measures. When any of the untoward states which I have named exist, all chance of primary union of the cornea is gone, and whatever depresses the patient will very materially tend to lessen the prospect of his recovering any degree of sight. He is sure to be enfeebled by the adverse condition of the eye, and the constitutional symptoms are often severe. It may be said, in general terms, that only those measures which tend directly to relieve pain and to soothe are admissible. With the least chance of saving the eye, the therapeutic measure most to be relied on is rest to the wounded part—that is, the eyelids must be again plastered. This may be necessary for weeks. Many an eye is lost because this is not attended to. All else is in vain if this be neglected. I believe its simplicity is the chief reason why this, my practice, is not more generally followed. It leaves nothing for meddlesome fingers to do. While in the first week I always plaster up both eyes, in the secondary treatment, to which I now allude, I close only one. I never perform double extraction at once: my reasons against it have been given.

This concludes what I shall say to-day. My next remarks, which will finish all that I shall say on cataract, will be devoted to the treatment of soft cataract.

(*To be continued.*)

ARTS EXAMINATIONS.—It is stated that nearly 300 candidates have entered their names for the Preliminary Examination in Arts, etc., for the diplomas of Fellowship and Membership of the Royal College of Surgeons of England, which will take place at the Whittington Club on the 20th inst. and following days.

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS ON THE TEMPERATURE OF DISEASE.

By EDWARD LONG FOX, M.D.,
Physician to the Bristol Royal Infirmary.

(*With a coloured Diagram.*)

XII.—PYÆMIA—CANCER—THE USE OF THERMOMETRIC OBSERVATIONS.

The temperature in pyæmia is generally high, and irregularly high. The thermometer may rise very rapidly during the first twelve hours, and fall as rapidly in the next twelve, simulating an attack of ague; but the fall is seldom so complete as in ague, and the further course of the disease serves to distiuguish this latter malady from pyæmia. This further course, however, is excessively variable. We may meet with extreme elevations and remissions occurring several times in the same day; or a high maximum point is reached once in the day, and the temperature may remaiu for half a day or more at that point, or may subside very suddenly; or part of the day, and even the whole of it, may be free from any elevation of temperature. But whatever the course of pyrexia in pyæmia, its great characteristic seems to be irregularity; and this irregularity may probably correspond to alternations of activity and rest in the production of pus cells.

Heubner, quoted by Wünderlich, speaks of three chief forms of the disease: 1, in which high elevatious and low depressions rapidly follow each other; 2, in which pyrexial attacks occur, definitely separated from each other by non-febrile or faintly febrile intervals; 3, in which the fever is of long duration, but is marked by special exacerbations of temperature. It would require a large number of cases to trace an accurate correspondence between these variations of temperature-charts and special forms of the disease; but I am disposed to think that Heubner's third form is met with where the pyæmic condition is manifested in the formation of a single gradually increasing abscess in some portion of the body; his second, where purulent collections show themselves one after another with slow development; and his first, where the pyæmia runs a more rapid course, seldom attacks many external parts, but may form growths of pus cells very specially in the lungs, or may destroy the patient rapidly without ever advancing to the formation of abscess, as in many cases of puerperal fever.

Case 82 is a good example of the irregularity of temperature in this disease, and shows a gradual defervescence, a condition that is always of happy augury.

Death may occur under every thermometric condition in pyæmia.

Cancer.

Several thermometric charts are given with this paper of patients who suffered from malignant disease attacking some portion of the body. The interest of these cases is considerable, whether we look upon cancerous growth as depending upon some pre-existing condition of the blood, or on an infection of the body, due to the previous presence in it, and perhaps active breaking up, of some abuormal growth of a similar nature. The chief specific character in all these cases is the slightness of the pyrexia accompanying the development of the disease, except where there has been decided ulceration directly exposed to the air, or where extreme rapidity of malignant growth has implicated some part of the body. Thus, of the seven cases tabulated here, Case 83 was that of a man, aged 22, in whom cancer had attacked the thigh, had implicated the upper two-thirds of the femur and all the surrounding soft parts, causing enormous swelling. Here no operation was attempted, and the disease proved very rapidly fatal. In Case 84 the chart was not taken until after the removal of the diseased mamma, and the temperature may be considered rather one connected with the process of repair than belonging to the malignant disease. As the wound cicatrised, the temperature gradually became normal. Case 85 was that of an elderly woman, suffering from uterine cancer. Here there was extensive ulceration of the os uteri, with a very large amount of fetid discharge, the high temperature in this case being due, I believe, to the ulcerative destruction of tissue rather than to the mere development of abnormal growth.

Contrasted with these cases are the four which follow, of which the first, Case 86, was very similar to case 85, except that the disease was in a different stage. Here, in a woman, aged 50, there was also cancer of the os uteri, but ulceration had not occurred. During the time of her sojourn in Hospital, the temperature scarcely ever rose above 99° (37·2° C.), and seldom exceeded the normal point. The progress of growth in this case was very slow. More marked still, because an instance of intense disease, was Case 87. A man, aged 54, complaining of slight jaundice, an enlarged liver, and general *malaise* of a very acute character, was admitted into the Infirmary, and died in about three weeks, having had no further symptom, except a somewhat acute pain constantly along the course of the transverse colon. The evening temperature never exceeded 1° Fahr. above the normal. After death, his liver was found infiltrated with typical encephaloid cancer, and no trace of any similar condition existed in any other organ. This case is interesting, also, as an example of primary cancer of the liver. In Case 88, the maliguant disease had attacked a large portion of the stomach at the pyloric extremity. On admission, three months before his death, the patient, a man, aged 50, seemed to vomit all his food. This symptom, however, gradually ceased, and for the last two months of life he was able to keep down a very fair amount of nourishment. Had it not been for this improvement, the temperature would probably have been below the normal. The disease, however, was steadily progressing; and after death a large mass of scirrhous induration of the coats of the stomach was found, with some ulceration of the mucous membrane lying above it. The temperature never rose higher than is shown in the observations tabulated here, the average height of the thermometer being 99° (37·2° C.). Not less remarkable as an illustration of the slight pyrexia accompanying cancer is the temperature-chart of Case 89. The patieut, a young man, aged 21, had suffered from considerable swelling of the left testicle (cancerous) for five months before admission. For the last month he had noticed, also, a rapidly increasing tumour about the middle and rather to the left side of the abdomen. He lived a fortnight, and during the last few days of life suffered from extreme pain in the right hypochoudrium. After death, in addition to the cancerous testicle, there was found a very large mass of cancerous (encephaloid) lumbar and mesenteric glands, which had formed a tumour that projected very considerably from the left side of the floor of the abdomen. The liver was large, and contained many collectious of encephaloid growth. Just beneath it a vessel had given way and hæmorrhage had taken place, which seemed to have set up some severe localised peritonitis, so accounting both for the pain of the latter days of life, and for the sudden access of temperature. There is thus an extreme contrast between the temperature of cancer and of tubercle—a point which seems more remarkable when we consider that the cell modification in cancer seems so much less imperfect than in tubercle.

I do not think that an absolutely normal temperature in cancer is any sign that the disease is not progressing; whilst a decidedly high temperature will show either that ulceration of some mucous surface accompanies the disease, or that inflammation of some surrounding tissues, consequent on accidental hæmorrhage or some similar condition, has taken place; and perhaps in exceptional cases it is a sign of unusually rapid cell growth.

Even the slightly raised temperature of cancer may, however, serve to distinguish this form of disease from fibrous, fibroid, fatty, and other more innocent growths.

In making a *résumé* of the uses of the thermometer as applied to clinical Medicine, we begin by saying that too much must not be expected from it. It is only in very exceptional cases that it can tell us everything—just as observations on the pulse, the respiratiou, the excretions, etc., are only valuable when combined in accurate clinical study. As a preliminary remark, it is useful to remember that, for all persons, under all conditions, the normal temperature is so nearly the same as only to vary by about 1° Fahr.

Pathological temperature is embraced within the limits of about 9° C. (15·3° Fahr.), and for the diseased conditions most usually met with the limits are considerably smaller.

In general terms we may speak of a temperature of and above 100° (37·7° C.) as indicatiug fever, and one of 96⅘° (36° C.) as indicating an algide condition, due to some depressing influence. The latter conditions have been briefly comprised by Hirtz under two heads—one iucluding diseases with temporary, the other with permanent, diminution of temperature. The first, in which the diminution is temporary, comprehends—

(*a*) Instances of abnormally low temperature immediately after the defervescence of acute disease, especially when this has been rapid.

(*b*) Iu debilitated subjects.

(*c*) As a consequence of the exhibition of certain therapeutical agents, especially antimony, quinine, and digitalis.

(*d*) After certain copious evacuations, vomiting, hæmorrhage, some kinds of diarrhœa.

(*e*) After a rigid diet in convalescence.

The second, in which this diminution is persistent, includes—

(*a*) Instances of disturbed circulation from organic disease of the heart.

(*b*) Diseases interfering with respiration and hæmatosis, as emphysema, asthma, bronchial dilatation, or contraction.

(*c*) The agony of certain diseases.

(*d*) Certain toxic states of blood, interfering with oxidation, as alcoholism and chronic uræmia, though in neither of these instances is an abnormally low temperature at all universally met with.

(*e*) All those conditions which interfere with the ingestion of food, as contraction of the œsophagus, some organic diseases of the stomach, and chronic lientery.

(*f*) And lastly, dropsical cachexia and great anæmia.

To this list we may add certain chronic morbid conditions of the brain, as melancholia, dementia, etc.

The thermometer is most useful, however, in diseases in which the temperature is abnormally raised. Of these, the fevers, febricula, typhus, enteric fever, relapsing, intermittent, scarlatina, measles, small-pox, rubeola notha, and erysipelas, have, within certain limits, their own special cycles of abnormal temperature. These may be interrupted by remedies or by complications, and the intensity of the elevation may depend on the amount of the poison absorbed by the system; but the general relations of the periods of the malady, the mode of ascent, the stationary period, and the defervescence are special in each disease, and would serve to distinguish any one of these maladies from any other. Some one of these three periods varies in each of the diseases above mentioned, and their general thermometric characters are so constant that any deviations from them indicate quite certainly the occurrence of some complicating intercurrent condition.

As a familiar example of the diagnostic use of the thermometer, we may instance the regular ascent, prolonged stationary period, and gradual defervescence of enteric fever as enabling us to distinguish this disease from at least three other morbid conditions that may simulate it closely—viz., acute general tuberculosis, tubercular meningitis, and some forms of pneumonia. The temperature of relapsing fever stands quite by itself—it is like that of no other complaint; and in those obscure cases of eruptive disease in which the rash is almost equally like scarlatina and measles, the critical defervescence of the latter will serve to distinguish it from the gradual subsidence of scarlatina. Many other examples might be given from the same class of diseases.

But leaving the fevers, we see in many other diseases certain general thermometric characteristics, although the regular curves of the specific fevers may be wanting. The thermometer alone is generally able to tell us whether we have to do with inflammation of the brain or mania; with inflammatory or spasmodic croup; with pneumonia or bronchitis; with colic or enteritis; with acute nephritis from cold or chronic nephritis; with tuberculosis of any degree or debilitating non-tuberculous diseases; with hysteria, or any one of the numerous maladies so often simulated by it.

In the morbid conditions of childbed, the thermometer points out the comparative innocence of the mental excitement that may accompany exhaustion, and draws attention to the earliest threatenings of puerperal fever. In these and many other instances, observations on the temperature of disease will prove of the greatest assistance in insuring accuracy in diagnosis, and, taken in connexion with a full review of other symptoms, will serve to bring far more minute and delicate points into the clearest light of certainty.

Scarcely less useful are such observations for prognosis; but for this purpose, even more than for diagnosis, is it inexpedient to make isolated registrations of temperature unaccompanied by accurate observations on the pulse, respiration, etc.

As a general rule, the higher the temperature, the more serious the prognosis; but this rule must receive modifications of various kinds. Thus—1st. Many illustrations have been given in the preceding papers of death ensuing at a comparatively low temperature. The absence of a high temperature is by no means necessarily a satisfactory sign in pyæmia, in renal diseases, in chronic pneumonia, in tubercular meningitis, in cerebro-spinal meningitis, in bronchitis, and in cancer. 2ndly. A temperature which is almost invariably a fatal indication in one disease may be exceeded with impunity in another. Thus, in acute rheumatism a temperature rather above 105° (40·5° C.) necessitates the gravest apprehensions, whilst in scarlatina and erysipelas a patient may recover, whose temperature has reached 108° (42° C.). 3rdly. Sudden rises and sudden falls are often of evil prognosis in many diseases; for instance, in maculated typhus a sudden fall of temperature, when all other symptoms remain as they were, will often usher in the fatal event. 4thly. In some cases the height of the temperature is not so important for prognosis as the period of disease at which it occurs. Thus, in typhus, the duration of the stationary period—that is, of the period at which the temperature is at its maximum—is in direct ratio with the severity of the attack. Again, in the same disease, the prognosis is bad if there is no remission of temperature between the seventh and ninth day; and still more, in uncomplicated cases, if the temperature remains high during the third week. In enteric fever the prognosis may be more serious, if there is no transient diminution of temperature in the second half of the first week, if during the stationary period the temperature keeps high, and especially if it is marked by very slight morning remissions. At this period, too, a sudden fall to a normal temperature is very serious. In variola the temperature alone might determine the variety of the malady; in the stage of primary fever the temperature is higher in confluent than in distinct variola, lasts part of two days instead of three, and the remission on the appearance of the eruption is much less marked. In pneumonia the rise of temperature beyond the third day, and its continued elevation beyond the usual period, from the fourth to the seventh day, affords grounds for apprehension, and would lead to the expectation of more of the lung being implicated, or of an unfortunate termination of the case. Of course, in all diseases, exacerbation of temperature may draw attention to complications, any of which may have grave influence on the prognosis; and, as the end of Medical science is the restoration of the patient, all observations that lead to accuracy of diagnosis, and that serve to warn us against possible modes of death, must have the utmost influence on treatment. But the knowledge of the effects of therapeutical agents on temperature is not yet sufficiently advanced to be touched on here.

In closing these monthly papers on the temperature of disease, it may be allowable to remind readers that these tables are simply the records of clinical observations. Very seldom has the theory of the causation of pyrexia been hinted at. The difficulties of the subject, by no means insuperable by-and-bye, have been ably touched upon by Dr. Clifford Allbutt in the *Medico-Chirurgical Review* for July, 1870. But whatever the true explanation of morbid heat may be, the fact remains that the thermometer, rightly used, may be of the greatest use to the busiest Practitioner, and in many cases (paradoxical as it may sound) *will save his time*.

And, remembering the breadth and importance of the subject, no one can be more conscious of the manifold imperfections of the papers than the writer himself.

ON THE DUALITY OF VENEREAL SORES.

By Mr. MORGAN, F.R.C.S.,

Surgeon to Mercer's Hospital, and the Westmoreland Lock Hospital, Dublin; Professor of Surgical and Descriptive Anatomy, R.C.S.I., etc.

In the *Medical Times and Gazette* of November 12, the question is fairly put, on the subject of the duality of venereal sores, as to which are to be credited—the doctrines of the schools, or the experiences which I have reported in the *Dublin Quarterly Journal of Medical Science*, for August last? and the querist is justly puzzled to know what is the real conclusion arrived at, or which can be credited by the rising generation.

The subject is now one of some moment, when the combat of the supporters of the Contagious Diseases Act and its opposers is about being set in array, and issues of great importance are being raised, which must be tested by the crucial examination of experiences impartially collated.

It is to be feared that most of our theories as to the nature of the venereal disease have been derived from Continental sources, and perhaps too blindly followed, without sufficient reflection on the data supplied by our everyday practice and observation. In these countries, no doubt, we are more chary in making what may be called experiments, which are, after all, the only certain criteria; the inoculations performed by Ricord, and others on the Continent, led the way to many important results, and formed the basis of theories which have been since accepted and acted upon by us; but, on the other hand, how few have been the confirmatory or systematic

testings by inoculation, or direct experiment in these countries; how few cases, comparatively, have been examined by "confrontation" as to the aspect of the reciprocal sores and consequences.

It would, indeed, greatly advance our right consideration of this difficult question, if each investigator approached the subject without any previous assumptions or foredrawn conclusions, but was altogether an impartial examiner of the facts actually before him in his special district, country, or city. No one can doubt but that diathesis and geographical distribution have some influence, at all events, on the progress of the disease. Thus, we hear of the almost absence of the affection in equatorial Africa; its modification in Iceland; we have the report of Army Surgeons, stating that the Hindoo is not subject (in some districts, at all events) to the hard sore, while the European is.(a)

The evidence collected before the Venereal Commission, 1868, proves the great difference of opinion which has existed as to the character of the sore and its relation to the infection of the system—such authorities as Mr. Syme, Sir W. Fergusson, Mr. Acton, Mr. Lane, Mr. Longmore, Mr. Coote, Mr. Erichsen, etc., giving as the results of their observations their testimony in favour of the non-existence of a double virus; yet how constantly, since the date of this Commission, has the press been engaged in issuing volumes in favour of, and treatments based upon, the proved existence of a double poison.

Let us take facts as we find them here in Dublin, where the disease is tolerably prevalent—so much so, that while about 1000 women are known to the police as living an irregular life, about 850 are annually admitted to the wards of the Lock Hospital (of course, some of these may be the same cases for a second and third time, or oftener.) In all the cases admitted during the past year, it could only be stated that three had a sore anything like the true typical—so-described—infecting sore; two of these patients suffered from very mild constitutional evidences, while the third was rather obstinately affected, but none of the three suffered anything like the severe constitutional disturbance and cachexia that many others did who had a sore not in the least resembling the characters of the infecting, and which was often accompanied with suppurating bubo. I carefully noted fifty-four cases of primary sore in young patients affected for the first time, and found that out of these but six escaped constitutional signs, even at a very early date, often before the final healing of the primary sore; all these were infected within eighteen or twelve months past. It is pretty evident, therefore, from observation of patients who were debarred the possibility of fresh infection, or the grafting of a hard or infecting on a soft non-infecting sore, that the suppurating and bubo-accompanied sore was followed by constitutional signs in a very short time—indeed, it might almost be said invariably so.

We can hardly explain this by supposing that all the patients had sores previously of an infecting kind. They were mostly young girls, and but a short time on the town; it is impossible that all of them could have had an infecting sore (which is persistent and chronic in its character) without their being aware of it, or without its being discovered, sooner or later. I look on the occurrence as exceedingly problematical. All the cases were regularly examined by the speculum, and no second sore was at any time discoverable.

In order to examine further into the doctrine of duality, I performed a series of inoculations where no sores were at all discoverable, but from a novel source, where the patient was suffering from constitutional syphilis in a more or less marked degree—the inoculative material being derived from purulent vaginal discharge, or even from a very slightly marked mucopus. The inoculations were performed on patients already syphilised, and the result invariably was the specific pustule and subsequent development of the ordinary soft, and so-called non-infecting sore. There was never the slightest induration, inguinal enlargements, or non-purulent surface that might be expected in one undoubtedly produced from a thoroughly tainted patient. This is very remarkable indeed, the only question at all involved being, What would the effect of these inoculations have been on an untainted patient? This I cannot as yet prove by direct experiment, as I have, of course, only inoculated those already infected; but I have no doubt that a healthy subject receiving a sore from such a source might be as infected as by receiving it from the sore of true syphilis, so-called. At the same time, the artificially-produced sore would be a perfect chancroid in appearance.

(a) *See* Report of Venereal Commission, 1868.

In one case I inoculated from the vaginal discharge of a patient who had been two months in Hospital, and who had been examined by the speculum thirteen times without finding any intra-vaginal sore; yet inoculation with a drop of the vaginal secretion produced a soft sore on another patient, which lasted for nearly two months, and which produced, both on herself and on several other patients, true "soft" or chancroid sores.

In another case I inoculated from the vaginal secretion of a woman who was constitutionally tainted, but had no sore whatever for four months previously, during all which time she was under surveillance, and could not possibly have got the opportunity of being freshly infected; yet the result of the inoculation was the production of a well-marked, soft, chancroid sore.

In another case I inoculated from the vaginal secretion of a patient constitutionally tainted, using the same drop of matter for six patients and herself, one only being unsuccessful, all the others producing soft sores and chancroids, including herself.

Every successful inoculation made with the vaginal discharge of a patient showing even slightly marked symptoms of syphilitic infection produced invariably the true "soft" or chancroid sore, and this sore was capable of indefinite transmission through itself and its offspring.

In the few instances I had the opportunity of testing the process of inoculation from the more usually accepted type of the infecting sore when unirritated, I failed, but I have also failed in inoculating with the matter from an ordinary chancroid sore. I have just now in my possession true pus, which is the result of inoculation from an indurated chancre on a person suffering from constitutional syphilis. The chancre was at first non-inoculable, but being treated with savine powder, it produced by inoculation on the bearer characteristic pustules, followed by ulcerations. From these another syphilitic patient was inoculated, and in succession a number of soft chancres were produced.

This property of the inoculability of a hard chancre, under certain circumstances, has been proved before this; and the clear evidence given before the Venereal Commission, 1868, by Prof. Boeck, shows that the immunity from the one poison of hard chancre procures immunity from that of the soft or local sore. He says—"When you have syphilised a person with the matter of a hard chancre, and thus given immunity, and you then take the matter from a soft chancre, you will find he has immunity from it also." The converse of this should hold good. This being the case, I can hardly see why we should suppose that inoculation (say from the vaginal discharge of a constitutionally infected patient), on a subject hitherto pure, should not produce a soft or chancroid sore, and yet, from its mode of origin, which was undoubtedly syphilitic, infect the recipient with the syphilitic poison.

Again, I have taken the secretion of mucous patches in the child, and, by inoculation on the child itself, produced a soft sore, which was reproducible. From mucous patches in the axilla, in like manner, I have obtained with difficulty characteristic pustules and soft sores. Dr. Richardson, in the *Dublin Quarterly Journal of Medical Science*, August, 1870, gives similar illustration, the soft sore being always the result of inoculation, from true syphilitic evidences; and in the child with inherited syphilis, unquestionably the occurrence of the soft or chancroid sore was out of the question.

That the softness of a sore, or the formation of suppurating bubo, will prove no guarantee of the non-succession of constitutional signs we must, I think, admit. This very day I saw a lad of 16, who had never before been infected, now having soft sores and open bubo, of six weeks' date, suffering from a terribly acute secondary ulcer of the leg. I saw, also, patients, both male and female, I inoculated from the sore (which was eminently a chancroid) and also from bubo, yet they are now suffering from constitutional signs, in the usual and ordinary course and time; and, on the other hand, patients who had suffered from the indurated sore, now having much less constitutional sequences.

In Hay's *American Journal*, for August, 1870, a report is given by Dr. Bumstead of inoculation treatment. Dr. Bumstead, in his careful book, is the most zealous advocate of the dual theory, yet we find him (p. 32), in the journal, stating "it makes no difference whence the virus was taken; the phenomena attending the success of these inoculations are always the same."

We may look on the following summary as representing the state of our knowledge:—

1. Inoculation on syphilitic patients from mucous patches produced characteristic pustules and soft sores.

2. Inoculation from the vaginal secretion produced characteristic pustules and soft sores.

3. From the products of the inoculation of the vaginal secretion, ditto.

4. From a hard sore, previously irritated, ditto.

5. From the ordinary chancroid, ditto.

6. From suppurating bubo, ditto.

7. From the mucous patches of inherited syphilis, ditto.

The chief point of interest still to be decided is the effect of inoculation from these varied sources on previously untainted patients. Were we once satisfied that the infection of the system modified and brought under the one similitude these inoculated sores, there could be no difficulty in admitting as indubitable what now seems almost "proven"—that there is but the one poison, irrespective of the primary aspect of its manifestation.

As the result of a large experience and careful observation and testing, I would put it thus—In woman, the indurated sore is an extreme rarity; but constitutional evidences are almost invariable.

In women—

1. The ragged, soft, pus-secreting sore at the fourchette or nymphæ is the most frequent, but constitutional signs are also almost invariable.

2. Suppurating bubo is comparatively rare.

3. Induration of the glands is by no means so marked as in the male.

4. Infection seems frequently to originate in a vaginal discharge (possibly truly a gonorrhœa), this followed by mucous patches, and these herald in constitutional evidences, the occurrence of a sore being often not discoverable.

5. Just as with the male, texture seems to influence the induration; a sore on the nymphæ may be hard, of an inflammatory type, but true induration is found most frequently on the labium.

In the male, the question may be answered, as put so frequently by patients, "Shall I have secondaries?"—if there be induration, I would say, very likely indeed; but if you live carefully, and are otherwise healthy, you may escape, or be very mildly affected. If there be a soft sore or suppurating bubo, I confess, in this country, I might cautiously give a more hopeful prognosis; yet I would by no means go the length which is confidently stated elsewhere, that the patient would be pretty certain to escape. At the same time, if the patient came from the Continent, with a sore contracted there, of the latter description, I am satisfied from experience that I could give then a very much more hopeful anticipation than for one contracted here. This is a point I have frequently noticed, and to which I would request attention; how it is to be explained I am not exactly prepared to say—I suspect, from the continued influence of legislation in restraining the excessive virulence of the disease. If my experience be further supported by others' based on practical observation, I think we have in this the strongest evidence in support of the extension of the Contagious Diseases Act, as the great and crying evil inflicted is the effect of the constitutional taint propagating itself in the innocent offspring, and too often, after perhaps years of domestic happiness, by its insidious manifestations and the miseries inflicted, causing the disruption of once happy homes; while the State finds, in the succeeding generation, the loss inflicted, by the sins of the forefathers, filling our unions and asylums with specimens of cachexia and diseased habit. This point cannot be too carefully considered, and would also help to explain the differences in the observations made by Continental observers and writers as to venereal diseases—the too hasty and blind adhesion given to their description of the disease by British and other writers, without a due regard to the form of disease prevalent in the special districts under each writer's observation, having led us into a maze from which we cannot extricate ourselves without the guiding aid of the delicate thread of careful and unbiassed testing and accurate practical observation.

I hope to revert to the subject in a future number.

Royal Medical Society of Edinburgh.—The following gentlemen have been elected annual Presidents for the session 1870-71. Edwin Hinchcliff, M.D., Yorkshire; Alexander Macdougall, M.B. and C.M., Argyleshire; James Muir Howie, Ayrshire; William Livesay, Isle of Wight.

Census of Ireland, 1871.—William Donnelly Esq., Registrar-General; Sir William Robert Wilde, M.D., and George W. Abraham Esq., L.L.D., have been appointed commissioners for the coming census. These gentlemen acted in a like capacity in the year 1861.

CASE OF INTUSSUSCEPTION OF A PORTION OF THE ILIUM—PASSAGE OF THE INTUSSUSCEPTED PORTION PER ANUM—RECOVERY.

By W. R. WOODMAN, M.D.,
Divisional Surgeon Metropolitan Police.

Miss H., aged 41, a schoolmistress, tall, slender, of middle stature, dark complexion, spare habits, has always had good health.

On Thursday, November 19, 1857, I found her complaining of pain in the bowels. They had been relieved the day before, but not since. She had been vomiting a quantity of bilious matter just before she sent for me, and throughout the whole of the forenoon, and I found the pain localised especially in the right hypochondriac region, but no lump could be felt, neither was there any tympanitis. Pulse rapid and rather hard. Ordered a blue pill, to be followed in half an hour by a warm alkaline rhubarb draught, and every four hours to take a small dose of Battley's liquor opii, combined with chloric ether, ammonia, and soda, in aromatic water.

20th.—Slight relief.

21st.—Vomiting still continues; bowels not relieved; ordered blue pill and a mild aperient to follow; the mixture to be continued. Evening: No relief; ordered another mild aperient.

22nd.—Bowels unrelieved; abdomen slightly tympanitic; pulse rapid and rather hard; still continues to suffer from vomiting; ordered an enema and a grain and a half of calomel with Dover's powder to be taken every two hours (six doses); called again in an hour, to see if the enema had been administered; had to do it myself. I introduced the long tube, and as soon as it had passed the sphincter, which was spasmodically contracted, several ounces of liquid, bilious, feculent matter were discharged through it of a moderately healthy character. I then passed it a few inches further up, attached the pump, and threw up a pint and a half of thin gruel with some olive oil, which in about half an hour came away with some of the same feculent matter as had before been voided through the tube. In the evening, I found that the bowels had acted slightly several times with a good deal of tenesmus; two of the pills only had been rejected; the tongue was moist but furred, the tympanitis abated, the pulse less hard but still rapid, and the pain but slightly alleviated.

23rd.—The same; bowels very irritable, with tenesmus accompanying slight evacuations of a fluid character as before. Ordered increased doses of Battley's liquor opii, with ammonia and soda, every two hours. Slight improvement in the evening, though she could retain very little of what she took.

24th.—Much the same.

25th.—Very restless night; tenesmus, etc. Ordered grey and Dover's powder, and added hydrocyanic acid to the mixture. The tenesmus abated, and the occasional sickness also, which was never very violent nor of long duration. Quieter in the evening.

26th.—The same.

27th.—The same, but no action of the bowels.

28th.—The same; slight action of bowels, liquid; to take grey powder with ext. of hyoscyamus.

29th.—The same; continue mixture.

30th.—Still the same, neither better nor worse; slight discharge of fæces almost daily. Ordered citrate of potash mixture, with Battley's liq. opii and hydrocyanic acid.

December 1.—The same, but complains of an increase of pain in the right hypochondriac region. Ordered, in addition, an ointment, consisting of half an ounce of ung. hydrargyri fort., with ten grains of powdered opium—a piece the size of a bean to be applied to the part affected twice daily, which gave relief.

No alteration until the 8th, when the pain perceptibly abated. She appeared slightly jaundiced. To take dilute nitric acid with the Battley. A mild alkaline rhubarb draught relieved the bowels slightly of some liquid feculent matter. Things now went on much the same, the bowels acting slightly, with the passing of liquid bilious matter; and once or twice when they did not act, and there was an increase of discomfort, relief was obtained by a mild alkaline rhubarb draught, as before, preceded by a small dose of grey powder.

The case thus continued with slight improvement until the 19th, when a portion of intussuscepted gut was passed easily from the bowels whilst at stool. The piece of intussuscepted bowel thus evacuated was over nine inches in length, and was

evidently a portion of the ilium. I carefully preserved it in spirit, and it is now in my possession.

The patient now rapidly rallied; nitric acid and taraxacum was ordered; the skin soon resumed its natural hue, the tenesmus vanished, and the bowels acted naturally, though the stools were inclined to be scybalous.

Having been nearly starved through her long illness, by judiciously improving the diet she was soon able to eat and retain a moderate amount of solid nutriment.

Ten years have now elapsed, and during that period she has had a fair share of health and strength, and has continued in the active discharge of her scholastic duties, never appearing to have missed the superfluous portion of the alimentary canal which she threw off with so much pain and trouble.

The remarkable part of this case consists in there never having been any absolute stoppage in the bowels, never any inflammation of a violent character, no stercoraceous vomiting; and to this add the complete and perfect recovery of the patient.

Vittoria-villa, Stoke Newington-road.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

PERI-RECTAL MYXOMA.

(Under the care of Mr. HULKE.)

A LABOURER, aged 49, was admitted into Handel Ward, under Mr. Hulke's care, April 17, 1870, with a very peculiar morbid condition of the perineum and ischio-rectal fossæ. The surface of these regions was overrun with large, hard wheals, separated by deep furrows. In these and in the wheals were many small openings, in the level of the surface, neither pointing (as a sinus leading to a sequestrum often is) nor depressed. In the larger holes a clean, jelly-like substance was visible, and from all of them it could be expressed in considerable quantity. It was a viscid, colloid substance, and not unlike glue; it felt sticky, and could be drawn out in long threads. The formed histological elements observed in it were simple spherical cells, about twice the size of a white blood corpuscle, rather numerous, some spindle-cells of nearly the same size, and a few branched, irregular corpuscles. A few capillary bloodvessels, from which many red corpuscles had escaped, were also discernible. A common probe could be passed through the sinuses to its full length, with little resistance, into a large mass of this gelatiniform tissue, which surrounded the rectum as with a collar, and so narrowed its outlet that the first joint of the index-finger could with difficulty be passed through the anus. The mucous membrane was perfectly smooth, soft, supple, and, apparently, not structurally implicated in the morbid growth, even where knots of this encroached on the cavity of the rectum.

The patient dated his malady from an operation for fistula in ano, performed eighteen years before. The wound, he said, had never closed, but for many years it occasioned him little annoyance. He married, and had healthy children. Eleven years after the operation, wheals and sinuses like those now present began to form; some time later the passage of stools became difficult, and he was troubled with flatulence and constipation, and this state of things slowly grew worse. He denied ever having had syphilis, and no objective evidence of his having suffered from it was discoverable.

The extent and relations of the tumour made its removal by excision or with caustics impracticable, and, after a short stay in the Hospital, the patient requested to be discharged.

COMPOUND FRACTURE OF LEG—DIFFUSE CELLULITIS—SLOUGHING—EXARTICULATION AT KNEE-JOINT—TEALE'S FLAPS—PLEURO-PNEUMONIA—SLOUGHING OF ANTERIOR FLAP—DEATH.

(Under the care of Mr. HULKE.)

A porter, aged 45, was admitted into Clayton Ward October 29, 1869, having fallen about ten feet and broken his left leg in the lower third. Both bones were broken, and the fibula protruded through the rent in the skin above the outer ankle, from which there was free venous bleeding. Five days later he was very much depressed; pulse 123; the limb brawny, livid, and vesicated around the fracture, and a slough had formed about eight inches above the external malleolus. By November 10 his condition was much worse, and he now desired amputation, which he had until then refused. Teale's flaps and exarticulation through the knee-joint were adopted, a dependent exit for the discharge from the stump, the non-exposure of cancellous bony tissue, and the avoidance of a considerable length of arteries and veins in the posterior flap being in this case specially desirable. The patella was removed, and the square front flap met the back one without tension. The cut surfaces were sponged with a strong solution of chloride of zinc. Four days later pleuro-pneumonia supervened, and he died on the eighth day after the amputation. The edge of the front flap had sloughed, the surfaces of both flaps were coated with lymph, the lung tissue was solidified, and the left pleural cavity contained six ounces of serum. The kidneys were large and pale, and their capsules adhered so firmly to the cortex that, in stripping them, portions of this were torn off; and the right kidney contained a cyst the size of a walnut.

The following cases of supra-condyloid amputation are interesting as being all performed on persons in advanced life, their respective ages being 53, 60, and 67. Much the same operation was performed in each case, Teale's flaps being made, all the wounds washed with chloride of zinc or carbolic acid, and the stumps dressed with the same. In the after-treatment opium was given very freely, so as to keep the patients quite at rest, and free stimulation was adopted from the first, as much as twelve or sixteen ounces of brandy per diem being given with beer. In this form of amputation, which Mr. Hulke is in the habit of choosing, whenever it is possible, the students are always instructed by him to carry out Teale's instructions strictly—the difficulty of cutting a truly square flap from a curved surface being pointed out, and the necessity for care in providing sufficiency of flap to cover the femoral condyles is also strongly insisted upon.

ACUTE INFLAMMATION OF KNEE-JOINT—AMPUTATION, WITH TEALE'S FLAPS, ABOVE THE FEMORAL CONDYLES—RECOVERY.

(Under the care of Mr. SHAW and Mr. HULKE.)

A shepherd, from Surrey, aged 53, was admitted into Forbes Ward, under Mr. Shaw's care, February 9, 1869, with acute inflammation of the left knee-joint, of two weeks' duration, which he attributed to sleeping in the wet grass when heated with exercise. The joint was very swollen, tender, and extremely painful. The thigh and leg were also much swollen. His rest was broken by starting of the limb at night. He grew worse, and on March 10 his pulse was weaker, his tongue dry and brown, and the pain in the joint excessive. Mr. Hulke therefore amputated the limb just above the condyles of the femur, making Teale's flaps, and removing afterwards the patella. The wound was swabbed with a solution of carbolic acid, and dressed with lint dipped in the same. One ounce of brandy every hour, and as much strong beef-tea as he could be persuaded to take, and opium freely, were given. He rallied slowly. A small piece of the inner corner of the front flap sloughed, but sufficient remained to make a good covering for the bone, and he was discharged in June with a sound and useful stump.

PERIOSTITIS AND CARIES OF TIBIA—SUPPURATION OF KNEE-JOINT—AMPUTATION ABOVE THE CONDYLES OF THE FEMUR, WITH TEALE'S FLAPS—RECOVERY.

(Under the care of Mr. SHAW and Mr. HULKE.)

An Irish bricklayer's labourer, aged 60, was admitted into Clayton Ward, January 12, 1869, under Mr. Shaw's care. The right knee-joint was swollen and red. The redness and swelling extended into the neighbouring part of the thigh and leg; copious purulent discharge ran from sinuses over the caput tibiæ, leading to carious bone. Any movement caused severe pain, and his sleep was broken by starting of the limb. During the following month the state of the joint became more hopeless, his appetite fell off, and his strength declined so much that it was evident that amputation afforded the only chance of recovery. Mr. Hulke therefore (February 14) amputated the limb, dividing the femur just above its condyloid expansion, adopting Teale's method, and cutting out the patella from the square front flap. He rallied well, but the complete cicatrisation of the stump was retarded by a limited necrosis of the cut surface of the femur. On April 5 he was able to get up, and on the 11th to go out into the garden. Some weeks later a small sequestrum was removed, and he was discharged from the Hospital in July, with a sound stump, and relatively robust.

CARIES OF CONDYLE OF FEMUR—SUPPURATION OF KNEE-JOINT — AMPUTATION ABOVE THE CONDYLES OF THE FEMUR, WITH TEALE'S FLAPS—RECOVERY.

(Under the care of Mr. HULKE.)

A cabman, aged 67, was admitted, under Mr. Hulke's care, into Forbes Ward on July 12, 1870, with disease of the right knee of fifteen months' duration. He described the pain as being at first like that of gout, to which he had been subject for some years. The disease increased rapidly, and at the time of his admission there was very great swelling of the knee, with enlargement of the cutaneous veins and discharging sinuses in the posterior and outer surfaces. After remaining a short while under observation, the pain continuing to increase rather than to diminish, on July 20 Mr. Hulke amputated just above the knee, fashioning Teale's flaps, and washing the flaps with carbolic acid lotion. The disease was found to consist of extensive pulpy degeneration of the synovial membrane, with eroded cartilages and a carious pit in the outer condyle. The stump healed very slowly, a sequestrum requiring removal on November 9, and recovery being further retarded by a large bedsore; but the man is now almost well again.

INFIRMARY FOR EPILEPSY AND PARALYSIS.

ON THE TREATMENT OF PARALYSIS AGITANS AND OTHER SPASMODIC DISEASES BY HYDRATE OF CHLORAL.

(Under the care of Dr. ALTHAUS.)

The therapeutics of spasm is still in such an unsatisfactory condition, that it appears to be the duty of Hospital Physicians to give a fair trail to every new remedy which appears *primâ facie* likely to exercise a beneficial influence in cases of this class. When, therefore, chloral was brought into notice, and its extraordinary hypnotic and calmative effects in sleeplessness and certain forms of insanity were ascertained, Dr. Althaus determined to administer it to patients suffering from spasms owing to an irritative condition of the motor nerve-centres, hoping that it might perhaps be found of use in relieving some of these otherwise so frequently intractable affections. With this view he commenced, in October, 1869, to test the effects of the drug in a series of cases of paralysis agitans, spasmodic wry-neck, chorea, and epilepsy. The trials of the drug in epilepsy are still proceeding; but, as far as the other three complaints are concerned, sufficient experience has already been gained to enable us to assign to chloral its place in the therapeutics of hyperkinesis. The doses which were given varied from five to twenty-five grains, three times daily; and the remedy was given in simple solution, with a little syrup, and a colouring of cochineal.

1. *Paralysis Agitans.*

The following is one of eleven cases of shaking palsy which have been treated with hydrate of chloral:—

R. B., aged 66, married, a coachmaker, admitted as an out-patient on December 2, 1868, has been in good health until twelve months ago, when he over-exerted himself in lifting a heavy load, and soon afterwards noticed that the left hand and arm began to shake. This went on for some time, when the left leg became likewise affected; and the right leg is now also subject to trembling, while the right arm has hitherto escaped the disease. The head shakes sometimes, but very slightly. The patient has been in the habit of smoking half an ounce of tobacco weekly, but has never exceeded in drinking. He complains of pain across the forehead, and occasional giddiness; he sleeps well; and digestion and assimilation are in good order. The shaking is increased by excitement, but not by manual labour; it is arrested during sleep, but recommences a few minutes after waking, even when the patient keeps quite quiet in bed; and it goes on without any intermission whatever during the whole of the day. There is a slight increase of bulk and temperature in the left over the right arm.

The patient was first treated with phosphorus, commencing with one-fourtieth of a grain, and taking ultimately one-fifth of a grain in pill, twice a day, but without any effect; then with subcutaneous injections of morphia and atropia, which made him feel giddy, but did not diminish the shaking, even for a few minutes; after which bromide of potassium was given, the dose of this being at last increased to forty grains three times daily. This made him feel so stupid that he did not know what he was doing; he felt giddy, silly, and agitated, saw visions of thieves and of post-boys with four horses rushing about, etc. At the time that these symptoms of central nervous depression were most marked, the shaking was decidedly less; it only commenced about an hour and a half after waking, and the patient was sometimes quite free from it for ten or fifteen minutes during the day; nor was it so violent as before. Although there was, therefore, a decided improvement of this most troublesome symptom, the mental disturbance produced by the remedy was so great that, after it had been vainly endeavoured to check these effects by adding arsenic to the bromide of potassium mixture, it was found necessary to discontinue the drug. The following remedies were then successively used, alone or in combination:—Nitrate of silver, belladonna, strychnia, chloride of gold and potassium, iodide of potassium, pushed up to twenty grains three times daily; and hypophosphite of soda. None of these medicines produced any effect on the palsy. Hydrate of chloral was now commenced, ten grains being given three times daily for a week; as this appeared to have no effect, the dose was gradually increased to fifteen and twenty grains, with no better result; ultimately, twenty-five grains were given as a dose, which produced decided cerebral disturbance, similar to that observed after the large doses of bromide of potassium. After the evening dose the patient went to sleep at once, but after the morning and noon dose he felt as in delirium, seeing visions, etc. The dose just mentioned was continued for ten days, the patient being quite willing to undergo the temporary inconvenience caused to him; but as there was no improvement whatever in the shaking all the time, the remedy was given up.

Ten other cases of shaking palsy have been treated with chloral; in six of them the drug caused mental excitement and increased shaking; in the four others, twenty grains thrice daily produced no effect whatever, but twenty-five grains produced sleepiness. In none of the cases did the chloral seem to afford the slightest relief to the shaking.

2. *Spasmodic Wry-neck.*

This affection is almost as intractable as the severe forms of paralysis agitans, although it sometimes yields to the influence of electricity, more especially to galvanisation of the cervical sympathetic. Yet it would be most desirable to find a remedy more easy to use by the Practitioner than the continuous current; and with this view chloral was given in two cases, after other nervine tonics and alteratives had failed. The effect, however, was negative in both cases.

3. *Chorea.*

If patients suffering from chorea are placed in favourable general and hygienic circumstances, and a tonic is given at the same time, recovery is the rule. For six months past the cases of chorea which have come under Dr. Althaus's care were so divided that the first was treated with chloral, the second with zinc, and the third with the ferro-arsenical mixture. Excepting one, they all recovered within from three to ten weeks, there being a slight difference in favour of chloral. The one exceptional case was that of an adult male, aged 32, who suffered, in addition to the chorea, from epileptic seizures; whose father had suffered from epilepsy, while his mother had been highly hysterical, so that the case was unfavourable from the first. The chorea came on when the patient was seven years of age, and has rather increased than diminished of late, having resisted a variety of remedial measures. It is now most severe in the lower jaw, whereby the patient is often prevented from speaking, being only able to ejaculate, as it were, single words at intervals. In the hands it is sometimes so bad that the patient cannot feed himself, and the legs are often so unsteady that he falls right on his back when he attempts to stand or to walk. After bromide of potassium, arsenic, zinc, silver, gold, and other nervines had proved ineffectual, chloral was given, with the following results:—Doses of ten grains twice or three times a day act as a temporary stimulant; the patient feels fresher, steadier, and better able to exert himself. From twenty to twenty-five grains produce, apparently, attacks of *petit mal* and great torpor of the brain for several days consecutively. As the patient cannot take any alcoholic stimulants without immediately feeling an increase of unsteadiness, and greater liability to epileptic seizures, he finds the stimulant effects of the smaller doses of chloral extremely grateful. These effects, however, are quite temporary, and do not extend beyond four or five hours after the dose has been taken.

BIRMINGHAM GENERAL HOSPITAL.

CASES OF ACUTE RHEUMATISM AND OF RHEUMATIC PERICARDITIS.

(Under the care of Dr. RUSSELL.)

THE following five cases, all of which have occurred to me during the past month, illustrate certain of the relations which subsist in different cases of acute rheumatism between the constitutional symptoms and the local developments in the joints and in the tissues of the heart. They exhibit pericardial inflammation, preceding the affection of the joints by a period of nine days; slight joint affection existing for six days, subsiding permanently and giving place to a sharp attack of pericarditis; inflammation of the joints of a very mild type, giving place to simple fever, which for ten days remained the sole complaint; and a like fever, possessing only negative signs to distinguish it from other fevers, lasting, without complication, for eleven days, then having a very severe attack of pericarditis ingrafted upon it. With regard to the fifth case, its precise nature may be considered as uncertain. The preceding exposure, followed by the joint disease and by acid perspiration, give to the illness a decidedly rheumatic character; whilst, on the other hand, the condition of the urine, both by the absence of the usual rheumatic characteristics, and by the presence of blood, would seem to range the case under the category of renal disorder, temporarily induced by want and exposure. It offers an interesting comment on the difficulties attending diagnosis when classification is based upon merely clinical distinctions.

Case 1.—J. M., aged 27, presented himself on October 2 with a severe attack of epigastric pain, ascribed to having eaten nuts. The sounds of his heart were then pure. The pain was relieved by an emetic, but it returned with much severity on the following day (the 3rd), and a distinct pericardial friction sound being audible, he was at once admitted. He had suffered during the preceding five years from two mild attacks of acute rheumatism, and in the week before the present illness had complained of pain in his ankles, which lasted only for two days and then disappeared entirely. The rubbing sound became very loud, harsh, and widely audible; but no fluid effusion took place till six days afterwards (Oct. 9). It had attained considerable amount by the 11th, but in two days afterwards the extent of dulness was considerably reduced, and the friction sound had become soft and single. On this day (Oct. 13) a mild attack of pneumonia set in, the evening temperature attaining its maximum of 103°; but from this date defervescence began and was complete in four days, recovery progressing rapidly. Excepting some undefined pain in the left shoulder, no joint affection was developed until nine days from the commencement of the pericarditis; the right little finger was then found swollen, and two days afterwards rheumatic inflammation attacked the right knee, wrist, and dorsum of the foot coincidently with the appearance of the pneumonia. These local symptoms yielded to blisters in two days, and with them the signs of pneumonia disappeared. The tongue was covered with a thin fur. The urine had a specific gravity of 1028—1030, and was loaded with yellow urates.

Case 2.—W. P., aged 9, was admitted on October 31, the third day of his illness, complaining of pain in his feet; next day the pain moved to his hands, which were puffy, and for the ensuing three days remained chiefly located in the right hand, after which time all joint disease ceased. But as the joints became free, a harsh pericardial friction sound was developed, accompanied by effusion, which attained the level of the third rib. The boy had little pain, and lay perfectly tranquil. His tongue was nearly free from fur; his urine, of specific gravity 1025, was loaded with yellow urates. The pericardial signs underwent no improvement for eight days, when, on November 12, the rubbing sound became less distinct, and by the 15th was hardly audible. The dulness was very slow in regaining the normal limit, but convalescence is now nearly complete.

Case 3.—The notes of this case are very brief, and only record a rheumatic condition in a boy, aged 13, characterised by considerable depression, a thick fur on the tongue, and urine of specific gravity 1028, depositing copious pink urates, and containing large excess of urea, with absence of perspiration until the fifth day. There was also at first some mental confusion. Slight local rheumatic development occurred in the feet and right hand for the first five days only, but the general symptoms described above continued alone for eight or ten days subsequently. There was no evidence of recent cardiac mischief, but the patient presented a loud diastolic aortic bruit. The present was his first attack of rheumatism.

Case 4.—The last case serves chiefly to introduce the present one, which occurred in a private patient, a boy, aged 8. Having suffered after exposure from aching in his limbs for a few days, on November 7 he became feverish, his tongue was coated with a white fur, his urine deposited pink urates, his morning temperature was 102°. He continued thus for eleven days, presenting none but negative signs to characterise the fever, excepting that a soft mitral systolic bruit was audible, of uncertain date. He had never suffered from rheumatism. At the end of eleven days, having shown signs of convalescence, his morning temperature suddenly rose to 103°, and, on the day after, a very severe attack of pericarditis was inaugurated, with copious formation of lymph and large fluid effusion, but he has remained throughout perfectly free from any inflammation in his joints. Convalescence is only now commencing, on the eleventh day of the pericarditis.

Case 5.—A. W., aged 20, had enjoyed perfect health, and had never suffered from rheumatism. He had been subjected to much privation, and to frequent exposure for four months, in consequence of having quarrelled with his friends, and left his home. He was taken ill on October 24, after a wetting on the preceding day, with pain in his thighs and face, and swelling in his knees. He was not confined to bed, though he could not walk upstairs. He had profuse perspiration at night, with lumbar and dorsal pain. When admitted, on October 28, he was in a state of great depression; his knees were very painful, and contained fluid; his perspiration and saliva were acid; and his tongue was coated; but after the following day the rheumatic affection was very slight, and wandered from joint to joint. At admission, the evening temperature was 104°; for the following three days it remained at 103°; defervescence then commenced, and occupied five days before it was complete. The first sound of the heart was prolonged at the base, the prolongation becoming louder, but remaining single; once only was a diastolic roughness distinguished. On the fifth day (the first day of defervescence), effusion of fluid took place into the pericardium, and in two days reached to the second rib, but thenceforward steadily declined. When admitted, the urine was found to deposit a copious woolly precipitate of disintegrated blood, the albumen presenting only its normal proportion to the quantity of blood. The blood rapidly diminished, the urine remaining at first pale and slightly smoky, averaging about sixty ounces, of specific gravity 1012, acid, and free from urates; afterwards it regained its normal colour. Convalescence was temporarily interrupted by a severe fright, occasioning the reappearance of the blood for two or three days. Examined twice by the microscope, the urine presented only disintegrated blood. The patient's gums were quite healthy, and there was no evidence of purpura.

I should add that the foregoing cases were treated chiefly with quinine and opium, counter-irritation being kept up by mustard, and linseed poultices being applied to the chest.

PATHOLOGICAL SOCIETY OF DUBLIN.—The thirty-third annual session of this Association was inaugurated on the afternoon of Saturday, November 26. The chair was taken by Dr. George H. Porter, Surgeon-in-Ordinary to the Queen in Ireland. Several interesting cases were detailed on the occasion, and the morbid specimens illustrative of them exhibited to the members and to the numerous students present. The Chairman announced that the Council had selected, as the subject for competition for the Society's gold medal, to be awarded at the close of the session, in April, 1871, the Diagnosis and Pathology of Injuries of the Vertebral Column and Spinal Marrow. After the adjournment of the Society for the transaction of private business, the following officers were elected for the year 1870-71:—*President:* James Stannus Hughes. *Vice-Presidents:* Robert Adams, Sir Dominic J. Corrigan, Thomas Beatty, Samuel Gordon, Edward Hamilton, and Henry Kennedy. *Council:* John T. Banks, John Denham, Christopher Fleming, John Hamilton, Thomas Hayden, George Kidd, Robert Law, Benjamin G. M'Dowell, Robert M'Donnell, Alfred H. M'Clintock, George H. Porter, and Joliffe Tufnell. *Honorary Secretary:* William Stokes. *Secretary and Treasurer:* Robert W. Smith. *Secretary for Foreign Correspondence:* Robert D. Lyons. Dr. Hughes, the new President, then took the chair, when Sir Dominic Corrigan, Bart., M.D., M.P., proposed, and Dr. Beatty seconded, a vote of thanks to Dr. Porter. This having been carried by acclamation, the Society adjourned.

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Medical Times and Gazette.

SATURDAY, DECEMBER 3, 1870.

SEXUALISM IN EDINBURGH.

The Medical School of Edinburgh, numbering above six hundred students this winter, is undoubtedly the largest in the United Kingdom. The recent proceedings of the male students towards the female have therefore excited very anxious thought and inquiry. That any half-dozen women should be treated as if they were worse than disreputable by numerous candidates for admission into an honourable and chivalrous profession, is of itself of sufficient importance to the public, without adding that those in question are presumably educated gentlewomen. It is no explanation to say that these young men are "cads and ruffians," because it is fully admitted by all that last winter they behaved to these same female students like courteous gentlemen. We may, therefore, more reasonably suppose that something has happened which will serve to justify the change of feeling in these young men, although the mode of manifesting it may be censurable. If this be so, then the chief blame of these scandalous proceedings, whether on the part of the male or the female students, must rest with those influential persons who have publicly advocated mixed classes of Medical students. The cause of this lamentable change of conduct is not far to seek. While the ladies pursued their studies at the University in their own classes they were treated with all courtesy. It was coincidently with their study of anatomy in a mixed class at the College of Surgeons, and more especially their dissection of the *pudenda* in the presence of male students, that the change of conduct took place. This may seem singular to those who suppose anatomists have no modesty, but the very word pudenda is a modest anatomical word. "*Pūdendum* (*pudor*, modesty; from the innate sense of shame or modesty which prompts to hide or conceal these parts), *Anat.*, a term for the genital organs or parts of generation of either sex, taken as a whole. . . . Germ. syn., *Schaamtheile*," so writes Mayne *sub voce*. The true anatomist, and, we may add, pathologist, feeling this innate sense of modesty, never exposes the genital organs of a corpse unnecessarily. It may be, therefore, assumed that the female students not only did violence to their own innate sense of modesty, but shocked that of their male fellow-students by their anatomical researches.

But this was not all. Respect for human remains, as well as innate modesty, is manifested by all races above the culture of brutal savages; it is to this instinct, indeed, that we owe almost all our knowledge of the arts of prehistoric man, and which has been the greatest obstacle to anatomical research. Nor is the dissection of a decaying corpse naturally a pleasing work; to some youths, indeed, it is so revolting as to drive them from the ranks of the Medical Profession. That the pure practice of dissection may act injuriously on the sentiments of women, even when carried on apart from men, is shown by a series of pictures in Leslie's illustrated newspaper for April 10 last, in which the Medical ladies of the New York College for Women are represented at work. In one picture a lady is shown dissecting a human leg; in another are six tables, each with its body and its ladies. In a third, nineteen ladies, every face alleged to be a portrait, are seen around one body. We are not far wrong in supposing that if such a public display of vanity and nastiness had been proffered to as many male students, the artist's person would have been in danger.

Various justifications of this new step in education have been offered; one alone need be noticed—viz., that the ladies are engaged in a high and noble duty; consequently, whatever may be the natural feelings in the matter, to the pure all things are pure, and they are pure. They painfully sacrifice their innate sense of womanly modesty that they may be the better able to succour, professionally, the thousands of women whose innate sense of modesty is painfully shocked by having to discourse of diseases affecting their pudenda to male Physicians. Although it is notorious that women have hitherto found in the treatment of all sexual diseases the wisest friends and the most chivalrous helpers in the Profession, we are willing to admit the argument. But why, if delicate, sensitive ladies want female Physicians, should the pure-minded, gentle ladies who sacrifice themselves to this purpose busy themselves with the pudenda of either sex in the presence of males? It is not a sufficient answer to this that it is a money question, for that implies that these ladies value their innate modesty at so much hard cash; we are told, indeed, that there are suffering females who prefer to suffer and die rather than shock their innate modesty by revealing their ailments to male Physicians, so that it is hardly credible that these gentle and noble female anatomists would undergo, on their friends' sanction, so much greater a shock to their innate modesty, as the much more immodest conduct in question must be. That there must be another motive is clear, if only from the fact that they have paid extra fees for their facilities of study with the young gentlemen of Dr. Handyside's class. Nor is it to be forgotten that these ladies, in sacrificing their own innate sense of modesty, do similar violence to that of their male associates without scruple and without compunction. The same sacrifice they would, indeed, require from poor male patients.

The plain truth is, that all this nobility of sentiment and object is spurious. The ladies seek to enter upon the practice of what appears to them a lucrative profession, and the study in mixed classes is essential to their future success. Miss Garrett has repeatedly avowed this, both at public meetings and in print, as in the *Times*. She emphatically repudiates unmixed studies for female Medical students, on principle, and desires "that all women who enter the Profession during the next ten years should be able to call in any man in London, and be entirely frank in speaking with him of every symptom of the case under consideration." Now, since male Physicians are already as entirely frank in speaking with female patients and their female friends and nurses as their innate sense of modesty would permit them to be in speaking with female Physicians, and as the cases would require, it is clear that Miss Garrett points to the cases of male patients. This being so, it is intelligible why a mixed anatomical class like that of Edinburgh is a salutary training and discipline for a future feminine career professionally. Unless the male Physicians had had their innate sense of modesty dulled, they would naturally refuse to consult in immodest cases.

That Miss Garrett's scheme of the future Medical education of

the Profession may well have excited the indignation of the Medical youth of Edinburgh, is intelligible when we remember that they are not likely to appreciate the nobility and purity of these motives of their female colleagues. The same clearing-up is afforded of the arguments of their supporters. We can now understand how Mr. Masson, the Professor of Rhetoric, could see in a mixed anatomical class like Dr. Handyside's something quite as pure and noble as a mixed congregation engaged in the worship of God. Mr. Blackie, too, the Professor of Greek, becomes intelligible when he asked, in discussing the question, "What was to hinder a young man sitting beside his sweetheart and holding her hand in the most affectionate manner during the whole time of service?" The ladies and gentlemen might even go farther than this at anatomical lecture, and thus any *mauvaise honte* which the exercitations of the dissecting-room had failed to dispel might be effectually met. Now, we ask seriously who is more to blame for the Edinburgh proceedings: these two Professors and others like-minded, or the youths who gave such wild utterance to their shocked feelings?

As it is probable that the students will continue to feel the same sentiments until they have been properly demodested—transformed intellectually, if not morally, into androgyni—they should turn their attention, in the meantime, to the chief offenders, and leave the ladies alone. They can, with the utmost propriety, remind the two Professors named and those others of their colleagues who concur with them that *maxima debetur pueris reverentiæ* must still be held in honour academically by them, and that, being 600 strong, they would be a welcome addition to the hospitable precincts of Oxford and Cambridge if the maxim cease to be honoured in Edinburgh.

Important as the question raised at Edinburgh is to the interest of that celebrated school, the assertion of the principle involved is more important to public morals. In so far as it does violence to the ordinary relations of the sexes in education, it is to be classed with those by which certain sects are guided, and which tend to change all that has been hitherto considered natural, moral, and religious in sexual relations, for arrangements in which the innate modesty of the sexes has so little share that man imitates in his cynical disregard of it the proceedings of lower animals. There are the great class of sexualists. Such an one was Prince, the head of the Agapemone, who having to perform what he considered to be a religious duty—viz., to cause a beautiful girl of seventeen to conceive a second Christ—found no difficulty or impropriety in performing the necessary physiological act in his drawing-room, in the presence of the ladies and gentlemen whom he ruled. In like manner, promiscuous intercourse of the sexes and all the observations as to the sexual functions, chronicled by Mr. Hepworth Dixon in his "Spiritual Wives," are done with the purest motives and in cynical contempt of the current order of society in those respects. We find analogous phenomena in this Medical sexualism. Our readers cannot but have been struck with the sentiments of "One Cognisant of the Facts" in defence of a daughter being taught to pass the catheter for her own father. There may be a feeling of indelicacy, he would say, in considering it, but it is wholly conventional, not real—the proceeding being justified by its necessity. For the same reason, a female Physician can pass the catheter for her male patient, and even for her own brother. This cynical disregard of common decency is shown by the treatment of Hospital patients. At Vienna, a man who objected to be examined in a state of nudity, in the presence of male and female students, was dismissed the Hospital. Grant the principle that all the natural instincts of humanity in its higher social development may be set aside, provided the object be good in the eyes of the sexualist, and any immorality may be—indeed is—clothed with a mantle of purity. The youths at Edinburgh did well to show their disapproval of such a principle, and deserve thanks.

THE PROGRESS OF THERAPEUTICAL SCIENCE.

No. IX.

The salts of *Cerium* were first introduced as remedial agents by the late Sir J. Y. Simpson,(a) and the oxalate was admitted into the second edition of the British Pharmacopœia. Sir J. Y. Simpson considered them to possess sedative and tonic properties, which make them useful substitutes for bismuth, hydrocyanic acid, and nitrate of silver. He used them with marked advantage in "chronic intestinal eruption," in irritable dyspepsia, attended with gastrodynia, pyrosis, and chronic vomiting, and in the vomiting of pregnancy. In epilepsy and other allied convulsive diseases in which the nitrate of silver has been frequently employed, the salts of cerium certainly possess this advantage, as Sir J. Y. Simpson remarked, over the nitrate of silver: that they may be persevered with without any fear of discolouring the skin. But the oxalate has obtained the greatest reputation, and that as a remedy in obstinate vomiting, and especially in the vomiting of pregnancy.

Among the recorded observations of its value, we may refer to papers by Dr. C. Lee,(b) (America) and Dr. Waring Curran,(c) and a case reported by Mr. Albert Lloyd.(d) It must be observed, however, that Dr. Curran gives the bromide of potassium with bark and ammonia at the same time with the oxalate. We have found the salt of signal service in a case of most obstinate vomiting occurring in an unmarried hysterical young woman who suffered from amenorrhœa and leucorrhœa. All treatment failed till the oxalate was tried; but a few doses of that always stopped the sickness, and enabled the patient to take nourishment; and under its use she completely recovered.

The remedy possesses the great advantages of smallness of dose (gr. iij.—v.) and freedom from taste and smell.

Lithia and its salts were also introduced into the British Pharmacopœia of 1864. More than thirty years ago Mr. Ure and some other authorities called attention to the remarkable solvent powers which the carbonate of lithia possessed over uric acid calculi—powers which much exceed those possessed by the other alkaline carbonates, and Mr. Ure suggested the injection of solutions of the carbonate of lithia into the bladder, with the object of dissolving calculi formed wholly or in part of uric acid. But it is to Dr. Garrod that we owe the introduction of the lithia salts into Medical practice. Extending the experiments of Mr. Ure, etc., he found that the carbonate of lithia could completely remove gouty deposits of urate of soda from cartilages incrusted by them, while carbonate of potash acted less strongly on them, and carbonate of soda left them unaltered. This encouraged them to make trial of the lithia salts clinically, and with highly satisfactory results. He finds them of great value for keeping uric acid in solution during its passage through the urinary organs, and for preventing its deposition in the structures of the body; it seems, also, that they may be of service in removing gouty concretions when formed. The carbonate is a much more powerful diuretic than the salts of potash or soda, and may be given with great advantage, as a prophylactic, in chronic gout, calculus, etc. Its dose is from three to six grains, and is best given in a state of free dilution. The value of the lithia salts, especially the carbonate, has been widely recognised. The lithia springs of Baden Baden(e) have gained a considerable reputation, and Professor Roscoe has found lithium in the thermal waters of Bath. Dr. Garrod has stated that he has known a few, but a very few, instances "in which the long-continued use of the drug has appeared to cause symptoms referable to the nervous

(a) *Monthly Journal of Medicine*, December, 1854; "Obstetric Memoirs," etc., p. 313. 1855; and *Medical Times and Gazette*, vol. ii., p. 280. 1859.

(b) *American Journal of Medical Science*. October, 1860, p. 391.

(c) Braithwaite's "Retrospect." Vol. lx., p. 248. 1869.

(d) *Ibid.* Vol. xlv., p. 280. 1862.

(e) Dr. Althaus "On the Lithia Springs of Baden Baden," *Medical Times and Gazette*, vol. ii. 1861.

system, as shaking or trembling of one hand, which has disappeared on the omission of the remedy."(f)

Podophyllin, or the podophylli resinia—a new purgative introduced into the British Pharmacopœia—comes to us from the United States, where it has for many years been largely used. It is obtained, by the action of rectified spirit, from the dried rhizoma of the American may-apple, or mandrake (the *Podophyllum Peltatum*), has a well-established repute as a purgative, and, from the character of the motions produced by it, has been called "vegetable mercury." When the proper dose for each patient has been found, it acts very efficiently, but different constitutions require different doses; a grain dose is rarely required, in many cases a sixth of a grain acts gently and efficiently, while others may require a dose of half a grain, though in not a few such a quantity would act violently. Authorities are not in accord as to its action. By many it is considered to be a powerful cholagogue, largely increasing the quantity of bile poured into the intestines; but while some assert that it excites increased secretion of bile, others say that its action as a cholagogue is only due to its stimulating the gall bladder to contract and expel its contents into the bowels. And again, others deny that it increases either the secretion or the excretion of bile. Dr. Anstie, who experimented with it on dogs and rats, came to the conclusion that it has no special action on the liver; and the committee of the British Medical Association appointed to investigate the action of podophyllin on the liver reported that doses varying from two to eight grains, when given to dogs, diminished the solid constituents of the bile, whether they produced purgation or not; and that doses which produced purgation lessened both the fluid and the solid constituents.(g) It is difficult, however, not to believe the strong evidence given in its favour as a useful and powerful cholagogue in man—in conditions of disorder or disease, at any rate. American Physicians of scientific repute hold it in great esteem as a cholagogue and general eliminative. Dr. Gardner says(h)—"I know no other substance which so certainly produced bilious evacuations when the liver is full of bile. . . . . Whenever I have deemed it desirable to evacuate or stimulate the liver, as in bronchitis, fever, headache, etc., I have used this medicine with highly satisfactory results." And he specially speaks of its value in jaundice, in the torpid liver of those who have resided in tropical climates, in gout, and "in the constipation which often besets patients in phthisis—as I think, most frequently from fatty liver." Dr. Ramskill,(i) after an extensive employment of it, reports—"As a cholagogue, it stands pre-eminent and alone—far before mercury or any other drug that I have ever administered. . . . . In very small doses it will procure an abundant flow of bile, and often induce its discharge by vomiting, before, or even sometimes without, any purging." Dr. Sydney Ringer (k) observes that "the experience of those who have used this drug largely is strongly in favour of its cholagogue properties in some diseases," and his own experience leads him to a similar conclusion. He recommends it especially in the obstinate constipation which often follows an attack of diarrhœa, in hand-fed infants, when "the motions are very hard, crumble when broken, and of a clay colour, often mottled with green." In this state he knows of nothing "so effectual in bringing back the proper yellow colour to the motions, with also a proper consistence, as podophyllin;" the motions become natural, the flatulent distension of the belly ceases, and the child is quieter and its health improved. He uses an alcoholic solution of the resin, containing one grain to the drachm of alcohol, and of this one or two drops are given on a lump of sugar two or three times a day. Dr. Garrod (l) thinks that it produces abundant bilious evacuations, rather by emptying the gall-bladder than by exciting the secretion of bile, for he has observed that, "when many evacuations are caused by its action, the latter ones are of a mucous or serous character, rather than bilious." Dr. Andrew Clarke(m) values it chiefly as a remedy for constipation. In his experience, he says, there is no single remedy for constipation so free from the objections attaching to ordinary laxatives as podophyllin. "In the great majority of cases of simple constipation, it fulfils the conditions required of a safe and effectual remedy, by operating slowly, easily, and after the manner of nature." He has found, also, that when given for this purpose the dose does not require to be increased after a time, but may, on the contrary, be diminished without affecting the success of its operation. We have ourselves, also, found it of great and decided value, used for this purpose, and as a purgative; but further evidence in its favour, besides that noted above, would be superfluous. It may, we think, be considered as having acquired a well-established reputation. In America(n) it has been found, in small repeated doses, of great value as a deobstruent in scrofula, rheumatism, syphilis, and other chronic diseases; and in England Dr. Marston,(o) of the Royal Artillery, and Dr. R. S. Sisson, have employed it in secondary syphilis as a substitute for mercury, with marked success.

Its action as a purgative is rather uncertain, and is apt to be attended with griping, to prevent which it may be combined with small doses of henbane, belladonna, or cannabis indica; and its action is rendered more certain by giving compound colocynth or rhubarb pill, soap, or ipecacuanha with it.

(f) "Essentials of Materia Medica." Third Edition. P. 105. 1868.

(g) *British Medical Journal*, vol. i., p. 419, 1869. *Practitioner*, June, 1869, p. 355.

(h) *Lancet*, vol. i., pp. 209 and 286. 1862.

(i) *Lancet*, *loc. cit.*

(k) "Handbook of Therapeutics," 1869, p. 304.

(l) "The Essentials of Materia Medica and Therapeutics," third edition, 1868, p. 163.

(m) *Medical Times and Gazette*, vol. i., p. 10. 1862.

(n) Ranking's *Abstract*, vol. xxxv., p. 248. 1862.

(o) *Lancet*, January, 1864.

THE WEEK.

TOPICS OF THE DAY.

The meeting of the Poor-law Medical Officers' Association, on Tuesday evening, at the Freemasons' Tavern, was well attended, and a very important one. A resolution was passed in favour of the General Registration of Disease, and another that the Medical Officers of workhouses and the district Medical Officers should be constituted Deputy Medical Officers of Health, to observe and report on matters affecting the public health. It seemed the general opinion of the meeting that whilst there should be a general registration of disease for imperial purposes, founded on reports sent by the district Medical officers to some central authority at short intervals, there should also be a constant communication kept up between the Poor-law Medical officers and the Medical Officers of Health, so that immediate intimation may be given to the latter of the appearance or spread of zymotic disease, and of other matters affecting the public health of the district. It seems clear that only by such a double system of reports can the two ends of a general system of the registration of disease for scientific and state purposes, and a local and immediate registration for the sanitary purposes of the district, be attained. The President, Dr. Rogers, in his address, made a vigorous attack on the Medical section of the recent report of the Poor-law Board. He read a letter from Dr. Maunsell, an Irish Dispensary Physician, which certainly disposed of many of the arguments adduced in that report against the introduction of the Irish system into England. At the same time, the writer fairly admitted that the Irish system had faults, the chief of which is probably the indiscriminate distribution of Medical relief, which should not, we think, be adopted in this country. The benefits which the Irish system has conferred on the population of Ireland have been acknowledged by the Irish Commissioners. They state that of three ways in which Poor-law expenditure

may be diminished, the first is "by the improved sanitary condition of the people, and consequent decrease of sickness." Statistics prove convincingly that this has been the case in Ireland. In 1852 the gross expenditure on poor relief in Ireland was £1,099,678, or 1s. 7d. in the pound. This included Medical relief, which was then only £54,289. Since then, however, an efficient system of Medical relief has been introduced in Ireland, and in 1869 the gross relief has decreased to £317,772, or 1s. 0¼d. in the pound, inclusive of Medical relief, which has been raised to £133,000. Dr. Rogers' address contained some telling instances of the false economy of our present poor-relief system. He concluded by informing the meeting that Mr. W. H. Smith, the Member for Westminster, has placed a notice on the paper that he will, early next session, call attention to the administration of poor-relief in the metropolis, and move the appointment of a Royal Commission; and he reminded the meeting that Dr. Brady is about to introduce a Bill into Parliament, having for its object such reform in Medical relief as will place the Service on a more satisfactory footing; and that, in order to secure a favourable consideration when it comes on for second reading, that he has pointed out, through the Medical press, what kind of information will best suit his views. Amongst those present who took part in the proceedings were—Dr. Lyon Playfair, M.P., and Drs. Aldis, Barclay, and Letheby, Medical Officers of Health.

The preliminary meeting of the committees of the Royal College of Physicians and of the Royal College of Surgeons, appointed by their respective Colleges to frame a scheme for the formation of a conjoint Board of Examiners for England and Wales, is to take place on Friday, December 2. An interview between the committees of the two Colleges, before invitations were sent to the other Medical authorities, it will be remembered, was preferred by a majority of the Committee of the Royal College of Physicians. This meeting, however, it is understood, is only of a preliminary character, and will, we have reason to believe, be speedily followed by sittings in which other of the Medical authorities will be represented.

At the next election of Members of Council in the Royal College of Surgeons there will be four vacancies, occasioned by the retirement in rotation of the late President, Mr. Cock, Mr. Busk, Mr. Lane, and Mr. Le Gros Clark. These gentlemen are of course eligible for re-election should they think proper to offer themselves. It would be premature to speculate on the results of a contest which is to take place seven months hence; but, judging from the last election, there can be little doubt that, should Mr. Spencer Wells again come forward, he will meet with a very large amount of support—sufficient, in all probability, to insure his return.

In consequence of the jobbery that has gone on in the matter of supplying the Irish Dispensaries with drugs, the Irish Poor-law Commissioners have determined to appoint an officer, to be called an Apothecary-General for the Poor-law Unions, who is to receive a salary of £500 per annum, and who is to purchase all the drugs for the Irish Dispensary service in the cheapest and best markets. The drugs have been hitherto purchased by the local boards, and, as might have been expected, the contracts for drugs have been only advantageous to the contractors. The Commissioners have very properly interfered, but we hear that the appointment of a special officer to buy the drugs is loudly protested against by some of the boards of guardians as an infringement of the principles of free trade!

We hear that, in consequence of a paper read by Dr. Stokes before the Medical Society of the King and Queen's College of Physicians in Ireland some important improvements are to be introduced in the practical, scientific, and clinical teaching of the Dublin Medical Schools.

A Medical contemporary has published the draught of a Bill to amend the Medical Act of 1858. We presume there is not the slightest chance of any Medical Bill receiving the support of Government which does not carry with it the assent and approval of the Medical Council and the governing bodies of the Profession in the three divisions of the kingdom. One fatal objection to the Bill of our contemporary is that it creates three more examining boards in the United Kingdom besides the existing ones.

The *Gazette* of Tuesday announces the appointment of the Commission on the Contagious Diseases Act, as follows:—The Right Hon. W. N. Massey, the Right Hon. C. Stewart, Viscount Hardinge, the Bishop of Carlisle, Sir John Pakington, M.P., General Peel, Mr. Cowper-Temple, M.P., Sir J. S. Trelawney, Sir J. W. James, Admiral Collinson, Mr. Buxton, M.P., Mr. O'Reilly, M.P., Mr. Rylands, M.P., Mr. Mundella, M.P., Professor Huxley, Canon Gregory, Professor Maurice, the Rev. Dr. Hannah, Dr. Wilks, Dr. Brydges, Dr. Paget, Mr. Timothy Holmes, F.R.C.S., Mr. Holmes Coote, F.R.C.S., and Messrs. G. Campbell, G. W. Hastings, and R. Applegarth. We presume the last-named gentleman has been appointed on account of his eminent qualifications for the post. His antecedents must, in the opinion of our enlightened Government, have specially qualified him to form a judgment on scientific and social questions.

Professor Bloxam has been elected to the chair of Chemistry in King's College, vacant by the death of Dr. Miller.

"A Surgeon" has been vigorously inveighing in the *Times* against the abuse of football by "hacking," as practised at Rugby. He adduces a number of cases of injury more or less serious, and one of death in support of his protest. We should recommend the Medical attendants of Rugby School to tell the world what they know of the practice.

The Edinburgh Town Council have elected Lord Gifford and ex-Lord Provost Chambers, Curators of the University. A better choice could not have been made. These two gentlemen are not members of the Town Council. We are glad to see that the Town Council has returned to the laudable practice of appointing Curators of the University from outside its own body. The close union which has so long existed between the Town Council and the University undoubtedly gives the former body a claim to share in the administration of the latter, but does not justify it in returning men of narrow views and small mental calibre, however worthy, as Curators of the first educational institution in Scotland.

Mr. Wyatt writes to the *Times* to inform the public that the managers of the Metropolitan Asylum District have decided on opening their temporary Hospital at Hampstead, for the reception of persons suffering from small-pox, and they hoped to be in a position to receive female cases and children of both sexes on December 1, and male cases on the following Monday. The Hospital contains 120 beds, and the nursing will be undertaken by the same sisterhood which performed the duty during the epidemic of relapsing fever.

NAVAL MEDICAL DEPARTMENT.

The adjudication of the Blane Medal has just been made by the President of the Royal College of Physicians, the President of the Royal College of Surgeons, and the Director-General of the Medical Department of the Navy (in accordance with the bequest of the founder, the late Sir Gilbert Blane, Bart., formerly Physician to the fleet), to naval Medical officers who have shown the most distinguished proof of zeal and ability in the Professional returns rendered annually to the Medical department of the navy. The medals which are awarded biennially, have been, on this occasion, conferred on David Lloyd Morgan, M.D., Deputy Inspector-General of Hospitals and Fleets, recently promoted to that rank, and now serving

at Bermuda Naval Hospital, and on Alexander Rattray, M.D., Surgeon R.N., now serving in H.M.S. *Bristol*, training-ship of naval cadets. We are requested to publish the following notice :—

"Naval Medical Department, December, 1870.

"An examination of candidates for appointment as Assistant-Surgeons in the Royal Navy will be held in London in the course of February next, of which further particulars as to date, etc., will be duly announced.

"Candidates having the necessary qualifications to practise Medicine and Surgery under the Medical Act, and who are not above 28 years of age, are eligible to attend.

"Application for admission to this examination should be made in writing, without delay, to the Director-General of the Medical Department of the Navy, Admiralty, Somerset House.

"A. Armstrong, Director-General."

SANITARY WORK AT KENSINGTON.

We are informed that the vestry of Kensington have adopted a series of resolutions, proposed by Dr. Dudfield, a Medical member of that body, and have referred them to the Sanitary Committee for the purpose of being acted on. But since these resolutions do but affirm the necessity of what ought to be the constant, regular daily work of the Medical Officers of Health and Inspectors of Nuisances, we cannot help suspecting that there is some covert sarcasm not obvious to anyone not in the secret. Can it be that the Medical Officer of Health neglects to bring before the vestry the cases of illness or death from zymotic disease? or that the sanitary inspectors do not visit the infected houses, and provide for their cleansing and disinfection? or is it that the vestry of Kensington has hitherto neglected to put in force the salutary provisions of the Sanitary Act, 1866? Have they waited till a pestilence is at their doors before effecting a registration of lodging-houses? Have they provided for the disinfection of clothes and bedding? a carriage for the conveyance of the sick? Hospital accommodation? a mortuary for the reception of corpses out of the rooms crowded by the sick? If the vestry of Kensington have really waited till the end of 1870 before putting in force the Sanitary Act, 1866, then they do but give one more illustration of the farce of permissive legislation, and reason to hope that the execution of the law may be taken out of hands so tardy and niggard.

FEVER AT STAMFORD.

Dr. Newman, of Stamford, to whom we were indebted, some time since, for a lecture on the Health and Drainage of Towns, has issued a second pamphlet, in the hope of stirring up the municipality of that town to do the work of sewerage and water-supply which the law *permits* them to undertake if they choose. He gives a fearful picture of the prevalence of typhoid and scarlet fever, showing that the same districts which were of late affected with typhoid are now so with scarlet fever. He thinks that—

"Scarlet fever has much to do with bad drainage: the worse the sanitary arrangements, the more completely the house is flooded by sewer gases or cesspool odours, the more serious are the cases therein occurring; and I do not hesitate to declare that the malignant form of scarlet fever, of which Stamford records can furnish many instances, is almost always associated with some gross neglect of the observances necessary to health.

"There are not a few special points in Stamford which have been visited in successive years by typhoid fever and scarlet fever, and have uniformly given a large number of fatal cases; a percentage of deaths infinitely beyond the usual, and, so to speak, reasonable death-rate. These nests of mischief influence for ill even the simplest diseases which may occur in the persons who live in or close to them."

He quotes the Privy Council Reports to the effect that Stamford is perfectly honeycombed with old cesspools, and urges the adoption of a dry-earth system for the poorer parts of the town. Ill-managed sewers are cesspools in disguise.

A CONTESTED ELECTION.

The late election of Assistant-Physician to Middlesex Hospital, which resulted in a triumphant majority for Dr. John Murray, is worthy of attention from another point of view than the numbers polled merely. One of the candidates was the Resident Medical Officer, who in that Hospital occupies a valuable and important post—and, let us add, a well-paid one. We have no desire to say a word against that gentleman personally, but we think that in such a case it is better for a man to resign a paid post when he becomes a candidate for an honorary one. That is one thing; then there is another still more serious. The two principal paid officers of the Hospital—men who in all such contests ought to be strictly neutral, as becomes their positions—on this occasion not only openly favoured the resident candidate, but publicly used their influence on his behalf. We call attention to these facts for the purpose of asserting the dignity of our Profession. That a man should enter an Hospital as a secretary's or chaplain's nominee is really too degrading; but that by placing himself in this position he should sap the independence of his order, is not to be tolerated. Each man becoming a Hospital Surgeon or Physician, owes it both to himself and his fellows that he shall be free at all times to assert his Professional freedom from non-professional control. but how is this to be done if he owes his election to that kind of influence?

BATHS FOR UNIVERSITY COLLEGE HOSPITAL.

A very important addition is about to be made to University College Hospital, by the addition to the Skin Infirmary of a full service of ordinary and medicinal baths. The baths will be situated in part beneath and in part adjoining the out-patients' department for diseases of the skin, in Grafton-street. Beneath this department are some extensive cellars, which are to be utilised for the purposes of a general bath-hall, thus saving a good deal of expense in the way of bricks and mortar. The entrance to this bath-hall will be from the out-patients' room by means of a stone staircase. The general bath-hall will be 30 ft. by 23 ft., and will have attached to it a dressing-platform 15 ft. by 10 ft., and a Turkish bath 10 ft. by 7 ft., into which both hot air and steam will be admissible. The hall itself will be fitted with four or five ordinary baths—hip, sit, and others—and also a large needle-bath and apparatus for douche and shower applications. In this part will also be given the alkaline and acid baths. Entirely separated by a lobby and ante-room, 13 ft. by 14 ft., and having a distinct entrance from the main staircase, as well as through the ante-room, is the chamber, 15 ft. by 11 ft., in which the patients affected with contagious skin complaints and syphilitic eruptions will be fumigated or otherwise treated—the iodine, sulphur, and mercurial medications being here given, in order that the fumes may not have any access to the general bath-hall, and are carried away by a special pipe to the top of the Hospital building, at the same time that the patients suffering from contagious complaints are kept entirely away from the place in which the simpler baths are given. Adjoining this part of the baths will be a large chamber, 7ft. by 5ft., for disinfecting by a strong heat the clothes of such patients as are suffering from phtheiriasis. Altogether, these baths will be most compact and complete, and, as far as we know, the first *complete* set of baths established in connexion with any large London Hospital. The cost will be about £1310; of this £1100 has been collected together through the energy of Dr. Tilbury Fox, the Physician to the skin department, the Committee not having felt themselves able to afford any assistance from the general funds of the Hospital, or to sanction any appeal to their own subscribers. The architect is Mr. Manning, of Mitre-court, who has already earned considerable reputation as an Hospital architect in connexion with the various improvements made at the Epileptic Hospital, and who in the present instance deserves especial praise.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE annual session of the St. Andrews Medical Graduates' Association begins on Friday and ends on Saturday. At the evening meeting on Friday, for scientific business, Dr. Whitmore, the Medical Officer of Health for Marylebone, will read a paper on the "Defects of Sanitary Legislation," after which it is expected a full discussion will take place. It is certain that the subject will be introduced thoroughly well, no Medical man being more competent to deal with it than Dr. Whitmore. On Saturday, at five in the afternoon, Dr. Richardson, as President, will deliver an address, which is this year to be entitled "*For the Future of Physic.*" As this is the last address to be delivered by Dr. Richardson from the chair of the Association, his Presidential duties ceasing at the close of the year, after four years of active service, a large attendance is expected. Dr. Day, of Stafford, will be proposed, it is understood, to succeed to the Presidency for 1871. Dr. Day has well earned the honour, both by his work in the Association, and by his position in Physic, and the provincial Physicians who hold their degrees from St. Andrews will see, in the selection of so distinguished a colleague, that they are properly honoured by their Fellows. The Association hitherto has been, in every sense—political, scientific, social—a wonderful success, and promises so to continue. We have only to say further, this week, that the meetings of the Association will be held at the Freemasons' Tavern, Great Queen-street, and that members of the Profession will be admitted on presentation of their cards.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

AN ordinary general meeting of the above Society was held at the rooms, 53, Berners-street, on Wednesday, October 26. The chair was taken by the President, Dr. Burrows. The attendance of members was more numerous than of late at general meetings, showing, it is to be hoped, an increasing interest in the affairs of the Society taken by those most concerned in its welfare. After the usual reading of minutes of the annual meeting, and of the quarterly Courts of Directors, the acting Treasurer's half-yearly statement of accounts was read. The receipts of the half-year available for payment of grants and expenses amounted to £1590 7s. 8d., the grants and expenses to £1513 9s. 1d., leaving only a very small balance in favour of the Society. A sad falling off was manifest in donations, the total for the half-year being only £65 11s. Mr. George Cooper, of Brentford, was unanimously elected a Vice-President in the place of Mr. Bacot, deceased. The proceedings terminated by a vote of thanks to the chairman.

THE AGGREGATION OF BLOOD CORPUSCLES.

IN a paper recently published by Dr. Norris, of Queen's College, Birmingham, the cause of the aggregation of the blood corpuscles in rouleaux is discussed. The cause, we think, was not difficult to find if we reflect that all bodies, be they what they may, mutually attract each other to a certain point; but that, when they are not miscible, this point being attained, the attraction of the molecules of each body tends to keep it distinct from the other—the self-attraction is greater than the mutual attraction. All bodies floating in the sea ultimately reach the shore if there be no opposing force. As far as we know, the law of gravitation is universal, and applies to the infinitely small as well as to the infinitely great; and we do not see why blood corpuscles are to be exempted from the bonds of mutual attraction. That being so, the simple question arises, In what position will this be most powerfully exercised? The answer is plain, when their flattened surfaces are in contact—precisely the way they arrange themselves. But, furthermore, the pile they form could only be of limited length, for in a rouleaux of corpuscles there would be greater attractive power than in single ones, and these last would naturally arrange themselves at right angles to the rouleau, and would in their turn form another, the two together forming a new centre of attraction, and thus a kind of network would be formed—precisely what takes place in the coagulation of blood. Dr. Norris seems to have overlooked the researches of the late Professor Daniell on the subject of attraction and repulsion.

PROFESSOR PARKES ON THE ACTION OF RED BORDEAUX WINE.(a)

OUR readers will remember (see *Medical Times and Gazette*, July 23, 1870) that Professor Parkes, aided by Count Wollowicz, M.D., published a system of observations on the effects of alcohol on the human body. A healthy soldier was the subject: he was put on a uniform system of diet and exercise; his respiration, urine, pulse, and temperature noted, and the differences accurately recorded during a series of days when he took alcohol and when he took none. The general conclusions were chiefly negative; there was no proof of effect on the temperature or on the excretions; the one positive fact was that it increased the work done by the heart. Dr. Parkes and Count Wollowicz now present us with a parallel series of experiments on the action of red Bordeaux wine or claret on the human body. The subject was the same as before, and the experiments were continued for thirty days, during the first two of which only water was taken; then during five days ten ounces of good red Bordeaux, during the next five twenty ounces, and, lastly, another ten days of water. It would be impossible to give the whole details, and useless to give part; so we must content ourselves with indicating the conclusions. One of these, of some interest, is the conviction of the untrustworthiness of the bichromate test for alcohol, which the authors intimated their suspicion of in the former series. They now state frankly their belief that "the perspiration may at some times contain some non-alcoholic substance, capable of reducing the bichromate. The perspiration of the arm was condensed on the tenth day (*before wine*), on the nineteenth day (during wine), and on the twenty-sixth, twenty-eighth, and thirtieth days (after wine). In all cases an extremely marked green reaction was at once given. We conclude, therefore, that fresh experiments are necessary with regard to the correctness of the bichromate test when applied to the condensed perspiration." This exposure of a source of error is worth something. The general results of the effect of claret are—a marked effect on the heart; no unequivocal alteration of temperature in axilla or rectum; no alteration in the elimination of nitrogen, nor in the phosphoric acid of the urine; some augmentation of the free acidity of the urine; no alteration of the alvine discharge. When alcohol or wine are taken in a certain excess, heat, flushing, drowsiness, discomfort, and loss of appetite are experienced. It is clear that the subject of the experiments was a healthy man, who would do better without alcohol in any shape than with it; and we need hardly say that our authors are far too philosophic to draw conclusions from his case and apply them to the whole population.

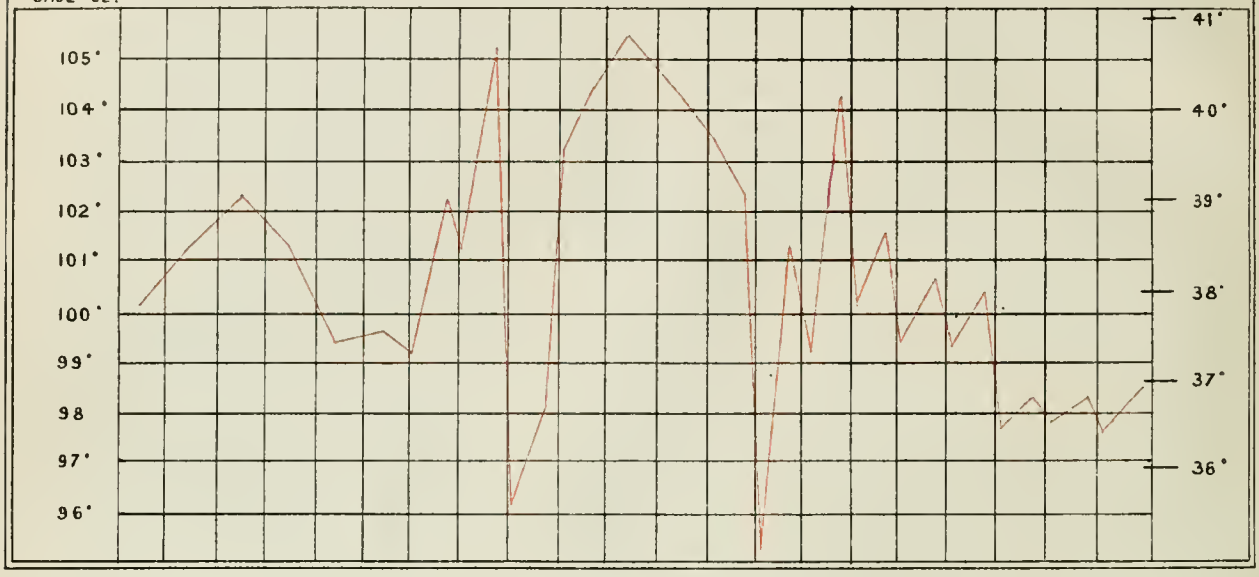
FROM ABROAD.—PROFESSOR SÉDILLOT ON CONICAL STUMPS—PROFESSOR HEBRA'S LECTURES ON DERMATOLOGY—STATE COMPENSATION FOR THE WOUNDED.

A SHORT time since (*Medical Times and Gazette*, October 29, p. 508) Professor Sédillot, of Strasburg, who has had under his charge at Haguenau near 2000 of the wounded, made what seemed an extraordinary communication to the Brussels Academy of Medicine. Its purport was to recommend that, in amputations performed in the infected localities wherein they have now so often to be executed, the bone should be allowed to project, bringing the soft parts around it so as to diminish the size of the wound as much as possible. Afterwards, in order to remedy the effects of what most persons would regard as bad Surgery, the projecting end of the bone would have to be excised. A new communication to the

(a) *Proceedings* of Royal Society, No. 123. 1870.

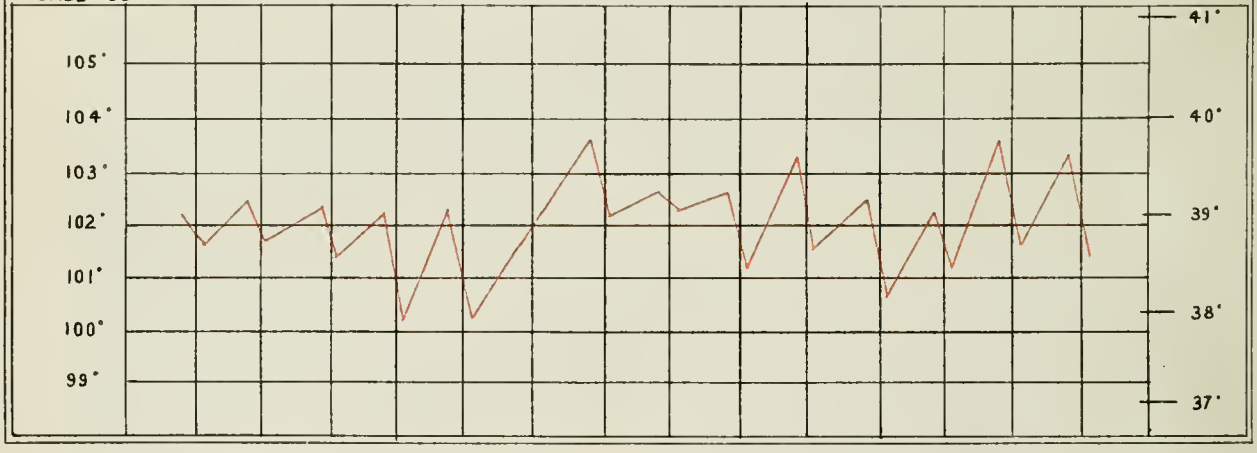
PYŒMIA (RECOVERY)

CASE 82.



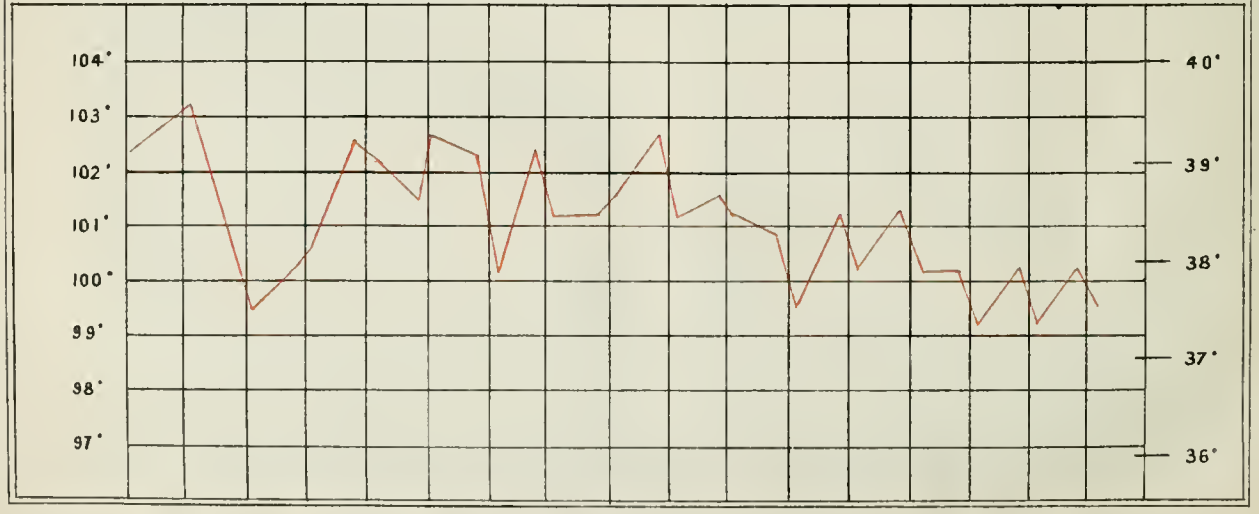
CANCER OF THIGH

CASE 83



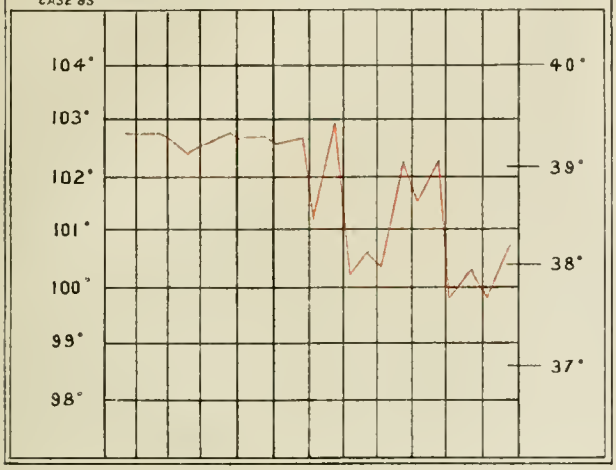
CANCER OF MAMMA. (OPERATION, RECOVERY)

CASE 84.



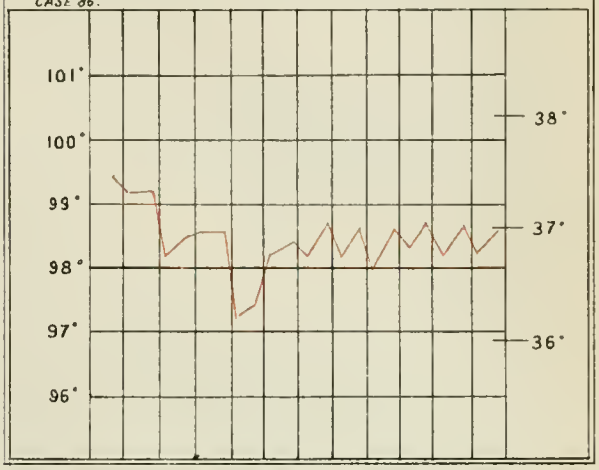
CANCER OF UTERUS. (ULCERATION)

CASE 85



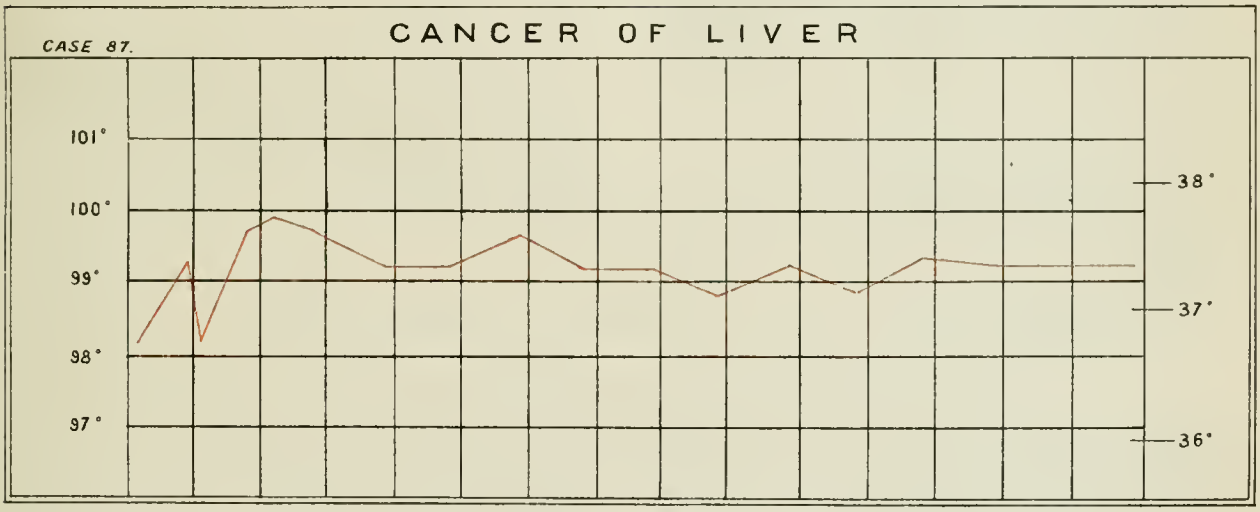
CANCER OF UTERUS. (NO ULCERATION)

CASE 86.



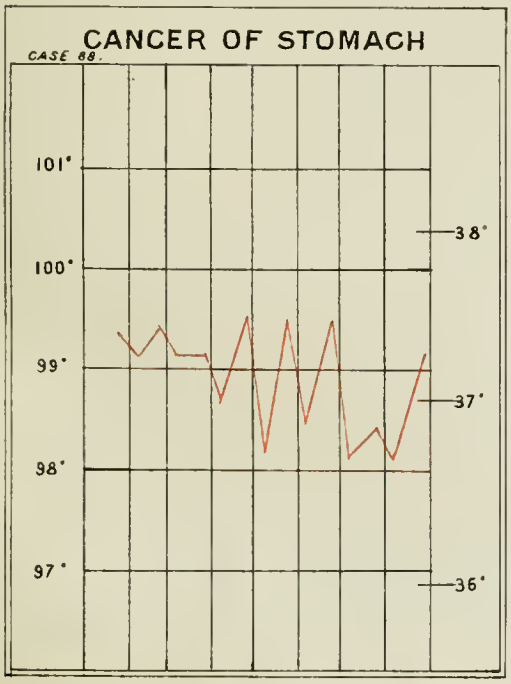
CANCER OF LIVER

CASE 87.



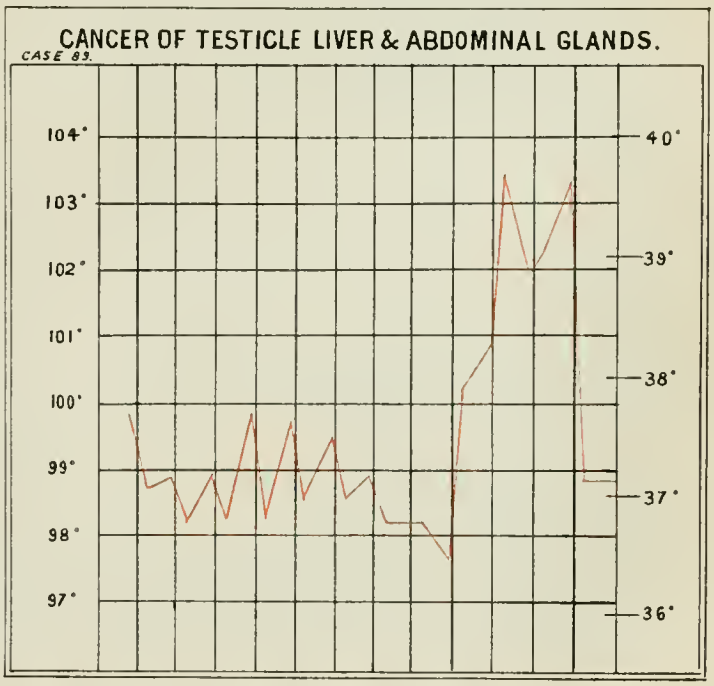
CANCER OF STOMACH

CASE 88.



CANCER OF TESTICLE LIVER & ABDOMINAL GLANDS.

CASE 89.



Academy, just read, only two months after the one in question, cautions Practitioners from adopting the recommendation contained in it. It has been found, M. Sédillot observes, that the myelitis and osteo-myelitis, which are of almost constant occurrence after the amputations, give rise to necrosis, and to so active a production of bone that at the end of a few weeks the old bone dies, and is sometimes very much inflamed, in part absorbed, and surrounded by so considerable an osseous sheath that it sometimes attains several centimetres in thickness and from 10 to 15 centimetres in length. The removal of the whole of such a mass as this would be perilous, and the excision of the old bone would only lead to the reproduction of the necrosis and the surrounding osteophytis. These communications, which speak more favourably for their author's candour than for his Surgical sagacity, are terminated by an exhortation to rely chiefly on conservative Surgery, of which M. Sédillot has always been a strong advocate. All amputations of dubious necessity should be eschewed; and in order to prevent, as far as possible, the access of noxious miasms, when amputation is unavoidable, those procedures should be resorted to which require the smallest and simplest wounds, and which are best disposed for immediate union, without bridles or cavities favouring retention of liquids. Purulent collections should also be opened by very minute punctures, preventing the ingress of air as far as possible.

On opening his course of lectures on Dermatology, in the beautiful and convenient theatre that has been built for him, Professor Hebra, who, it will be recollected, has only recently been appointed a Professor in the Vienna Faculty, addressed some introductory observations to his class. He observed that although he had for nearly thirty years been only a kind of parasite of the fertile soil of the General Hospital, yet his lectures had been attended by thousands of students from all countries. Indeed, the material at his disposal is immense, and he has found it for many years past, as well as at present, to amount to a seventh of the cases of disease admitted. Thus, during the decennium, 1850-60, he had about 30,000 cases of skin-disease, the entire number of patients admitted into the Hospital in the same period being 227,000. He had, therefore, an average number of 3000 cases per annum. To these are to be added another 1000 cases derived from the Ambulatorium or Dispensary, giving a total of 4000, or about 300 per month, or 10 per day. This is surely sufficient to teach and learn from, especially when it has been preceded by the investigation of 100,000 prior cases, this being at least the number of cases that have come under his care at the Hospital during the last thirty years. He had had many difficulties to struggle with, his mode of demonstrating considerations based on nature being often at variance with the views held by his predecessors or contemporaries, in-rooted prejudices having to be cast off for the admission of new ideas. He recommended the study of dermatology especially to his hearers, as calculated to give more satisfaction than the cultivation of any other specialty, inasmuch as we are frequently able to speak with certainty of our knowledge regarding it, while in other Medical doctrines we are confined to conjecture. He counselled them to utilise its great objectivity, simplicity, and consecutiveness (*konsequenz*), acquiring their stock of knowledge, not from books or lectures but from demonstration.

In relation to the demands for help for the sick and wounded, a recent number of the *Wiener Med. Wachenschrift* (which journal, we may observe, supplies a far more complete record of the Medical circumstances of the war than do the Berlin journals, the accounts in which are meagre to a degree), makes the following observations:—

"The most striking proofs of the extent of the losses and devastations caused by this unhappy German-French war are furnished in the incessant and ever-increasing cries for help. These resound in every key from all sides and all parties. Appeals are made to the sense of sympathy and compassion, and attempts are made to stir the fibres of our hearts. Persons in the highest position in the State beg and intreat in the most sorrowful manner for compassionate gifts for the innumerable victims of this bloody war."

After quoting some passages from an urgent appeal made by the Princess Royal of Prussia, the writer goes on to say—

"We wish this warm and eloquent appeal every success, but we are desirous, from a public and humanitarian point of view, to add the following remarks, suitable as they are to the spirit of the times. Whosoever sacrifices his life or his health for his fellow-citizens, offers the highest sacrifice that can be required of the individual for the general good; and therefore it should not be the office of voluntary kindness, but the duty of the State, to shield the individual, or those belonging to him, from the ill-consequences which such sacrifices may entail. We believe, then, that the question of compensation to the wounded or their families should not be a question of humanity or private beneficence, but that it should be a concern of the State, and duly regulated by laws. It should start from the basis that it is not an aid or an alms, but a complete and durable compensation. We cannot repeat sufficiently often, or declare loudly enough, that if the State, with the view of bringing on a war, may raise its loans by millions, it should be able also to procure money to render those who have been sacrificed for it as scatheless as possible. For this it would have moral and judicial justification, and might heap debt on debt. Large and violent 'war compensations,' however, devoted to other objects than those here indicated, we look upon as unjust and unpardonable. Let those who have incurred the damage receive the compensation."

MEDICAL ORGANISATION DURING WAR.

(*From a Military Medical Correspondent.*)

On Monday evening, a meeting of the Health Department of the Social Science Association was graced by the presence of Colonel Loyd-Lindsay, M.P., in the chair, of Sir T. G. Logan, C.B., the Director-General of the Army Medical Department, Drs. Balfour, Fitzgerald, and many other army Medical officers, attracted by the promise of a paper by Mr. Ernest Hart, whose experience during the last few weeks has qualified him to treat of Medical organisation during war.

In describing the details of the Prussian military Medical system, which he did with his usual clearness and ability, Mr. Hart contrasted it with the mixed regimental and staff system at present in force in our army. He considers that the latter can only be maintained in a state of efficiency by a very large increase of the *personnel*, and that even then, as regards elasticity and general manageability, it would be inferior to the Prussian, in which the Medical staff is in a position almost identical with that of the engineer corps. One very remarkable feature in the Prussian system is, that during war the services of all Medical men in the country, including the most distinguished, are rendered available for duty with the army. Military Surgeons thus have the advantage of the advice and assistance of such men as Langenbeck, Stromeyer, Esmarch, Virchow, Frerichs, etc., as consulting Surgeons and Physicians, with purely scientific, as distinguished from administrative functions. Mr. Hart intimated that such a plan might present some advantages in our own army. On this point Sir T. Galbraith Logan and Dr. Balfour ventured to join issue with him, although he received support from Dr. McCormac and Dr. Hermann Weber. Sir T. Galbraith Logan stated his opinion that in our army such extraneous aid is rendered unnecessary by the special training which Medical officers receive at the Army Medical School, at Netley. The force of Sir T. Galbraith Logan's observation, as also the difficulty in this country of procuring the services of our Pagets and Fergussons, were fully admitted by Mr. Hart as powerful objections to the attempt at introducing a similar practice into our army.

Doubtless the Director-General, blinded by constant attention to the details of his own department and his endeavours to perfect his own Professional branch of the service, thinks that the way to have good Surgeons is to make them fit for work, and let them do it, and that the intrusion of civilians would be nothing more nor less than a blight. We suspect that the same optical defect renders him insensible to the wealth which the nation possesses in the shape of men who, without any special training, and with their qualifications a

secret to all the world but themselves, are ready to volunteer to conduct Hospitals and practise military Surgery, trusting to their own innate genius to deal with people whose tongues they speak not. This by the way. The detailed history of some of the Red Cross Knights would teach military Surgeons a good deal.

There was no discussion as to the relative merits of the "regimental" and "general staff system" of organisation in the British Medical Service. It could hardly, indeed, have been expected that the Director-General and officers of the Army Medical Service should ventilate their respective views in a mixed meeting on a point so much controverted, and which is still under official consideration.

The mode of working and the remarkable efficiency of the krankenträgers, or bearers of sick and wounded, in the Prussian army, the care taken for the identification of the dead and wounded by means of the personally-descriptive label worn in his clothing by every Prussian soldier, as also by the Surgically-descriptive tickets which the Medical officers who apply the primary dressings on the field attach to the button-holes of the wounded, reporting site and nature of wound, and of dressing applied or operation performed, were described, as furnishing most valuable information and being well worthy of introduction into our army. On the other hand, the Prussian military Hospitals do not confer upon the sick and wounded the advantages of a regular system of Hospital diet, clothing, and general comforts, which are so liberally provided for our soldiers.

The observations upon the necessity of a Medical organisation, in connexion with the National Aid Society, being framed and prepared for our reserve forces in time of peace, elicited much approval from the Medical volunteer officers present, and a resolution embodying their tenor was passed by the meeting.

In support of his statement as to the generally healthy condition of the Prussian armies in France, Mr. Hart appealed to Staff Surgeon Fitzgerald, who, during his late official visit to that country, had had peculiarly favourable opportunities for forming an opinion. Mr. Fitzgerald replied, that although in many respects the sanitary measures employed in the Prussian army are defective, the general health of the troops has been good. There has been little or no true typhus; specific dysentery was rare, although diarrhœa—in some instances of dysenteric character—prevailed considerably. The food of the men was not particularly abundant or good; but one great reason of their comparatively good health was—in Mr. Fitzgerald's opinion—the care taken not to over-work them. Regiments, as a rule, were only employed on continuous advanced duty four days at a time, instead of for weeks, as had been the case with our army in the Crimea.

The results of the labours of the National Aid Society and of the Geneva Convention were mentioned by the lecturer in highly laudatory terms. A certain amount of good must of course have been effected by such means; but if the thing had to be begun again, it would be done otherwise or not at all. English society now has very serious doubts if it be desirable to relieve States from the expenses of war, and we still believe that each belligerent should depend upon its own resources.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. IX.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

Sketch of Mr. Aston Key—Reporting from Memory—Interview with Mr. Bransby Cooper: His Character; Effects of the Trial upon him—Reflections.

After I had been on the *Lancet* about five years (1839), in a conversation one day with Mr. Wakley, he lamented the closure of *Guy's Hospital* against anyone reporting for the *Lancet*. He suggested that I should make an attempt to report some Surgical cases of Mr. Key, who was not unfavourable to the proceeding. Accordingly, I took a letter of introduction to Mr. Key, to his house in Great St. Helen's, and arrived there just at 12 o'clock, and as he was about to leave home—that being his hour for doing so. His man informed me he would not see any more "patients" that day. I sent my letter in, and was almost immediately admitted to his consulting-room. He was affable, and, as he was always, gentlemanly in the extreme. He said he had no possible objection to his cases being reported, and would give every facility he could possibly afford me. This, however, he said, smilingly, would be but little, for, in face of the Board in the Hall, he could not countenance me in taking a single note. I explained that this would not be an insurmountable difficulty, as I could do something from memory; at all events, I could make a trial. I felt, however, under the circumstances, that I could not do so in opposition to the wishes of Mr. Bransby Cooper, and therefore, before I visited Guy's, I would see that gentleman. Mr. Key gave me a card of introduction, and next day I paid my visit to Spring-gardens.

Before describing that interview, I would diverge for a moment from my narrative, to say a few words about one of the most accomplished Surgeons of his time. Amongst the "giant Surgeons" of the Borough Hospitals, Charles Aston Key, if not the foremost, was inferior to none. He was less brilliant—or, perhaps, showy—as an operator than Sir Astley Cooper, less learned and accomplished than Green, and less philosophical than Travers; but he was superior to Sir Astley in accuracy of diagnosis and in the higher principles of Surgery. He was a far better operator than either Green or Tyrrell; and, though he had not that originality of thought which belonged to the author of "Constitutional Irritation," yet in all that constitutes a first-class practical Surgeon he was the superior of Travers. His operations were the most neat and finished—no flourish, no demonstration; if one could coin a phrase with propriety, they might be called the "poetry of Surgery." I know but one man amongst his contemporaries who came at all near him in this respect; this was Robert Keate, in his palmy days. But Keate was inferior to Key in those higher elements of mind which are necessary to the formation of a great Surgeon. It is to be regretted that neither of these remarkable men have given anything of importance to the literature of Surgery. No work was written by either with which we could identify his name. Key's appearance and manner were much in his favour. He had a handsome, intellectual face, denoting great perception and great reflecting powers, and an eye of extraordinary intelligence. His manner was finished without being finiking, and affable without being familiar. He was, if anything, too cold and unemotional; but the calm power he displayed at the bedside was striking, and gave instant confidence to the patient and his friends. He was somewhat above the middle height, of a graceful figure and carriage, and dressed in the full dress of the time—a blue coat with bright buttons, and black continuations.

It was somewhat remarkable that I had never, to my knowledge, spoken to Mr. Bransby Cooper, and it is quite certain, if I had, he had no recollection of the circumstance. I called, in Spring-gardens, at the house so long occupied by Sir Astley Cooper, and having sent in my card, was almost immediately ushered into Mr. Cooper's presence. Those who knew this amiable, kind-hearted, and good man can imagine how I felt when he rose from his chair, walked to me, and took me by the hand. I had placed the word "Surgeon" on my card. He said, with that frankness and *bonhomie* which were so characteristic of him, "I see you are a Surgeon, Mr. Clarke, what can I do for you?" The moment I mentioned the object of my visit, the effect upon his face was most painful, and for the moment I regretted that I had made my visit. He sunk back in his chair, put his hands before his face, and sobbed—literally sobbed like a child. I cannot describe my emotions at this juncture. I felt almost inclined to leave the room, but feared this was scarcely justifiable. After the first shock was over, he said, still under much emotion, "This is cruel, sir, indeed; very cruel. Why bring up to me remembrances always painful, sometimes too painful for me to bear? I am the last person you should have applied to in this matter." I assured him that I had come to him out of respect for his feelings, and not to hurt them; that, if he had any objection whatever, I would not enter Guy's Hospital as a reporter. He became calmer, and thanked me for my "consideration," adding that he had never had any objection to his cases being fairly reported, and should offer no objection to it now; but how could he give me permission to do so whilst the board which was placed in the hall by the committee of the Hospital was retained in its place? I told him I was prepared to take all responsibilities and labour upon myself if he could assure me that he really would not feel hurt at my attempting to report some of Mr. Key's cases from memory. On his further assurance on this point, I rose to leave, but he requested me to prolong my visit for a few minutes—this I did to half an hour. The conversation was to me most interesting, but

withal somewhat melancholy. He spoke of the utter ruin that had befallen him in consequence of the trial; the mental anguish he had endured, and which, even then, would give rise too frequently to those "dark hours" when he seemed almost hopeless. I expressed my regret that the trial had ever taken place, and believed that Mr. Wakley now regretted it. But Mr. Cooper contended that it was the only course open to him: had he not gone into court he might have been branded as a murderer as well as an incompetent Surgeon. What had afflicted him most was the expression of the defendant in the cause:—"I will ruin Bransby Cooper, if I ruin myself." I expressed doubts as to the accuracy of the expression, but he persisted in its correctness, and all I could say was, that I hoped a better feeling now prevailed. Some years after this, at the first interview with Mr. Wakley, I have reason to believe he asked him if the words had been uttered by him, and Mr. Wakley replied "not exactly." But the intensity of feeling which then prevailed, and angry passions which predominated, render it likely that words quite as bitter had been really spoken. I left Mr. Cooper, very favourably impressed with him in every way, and the next day repaired to Guy's Hospital to "take some cases" under the care of Mr. Key. Four new cases of joint disease had been admitted into the Hospital, and of these I took mental notes, putting these to paper as soon as I got home. I was much struck with the power of clinical teaching displayed by Mr. Key. Nothing could have been more to the purpose or more instructive. But I soon found these teachings were not regularly pursued, but were only like occasional gleams of sunshine on an otherwise cloudy day. On the next visit, Mr. Key hurried through the wards, scarcely said a word, and, after a regular "run," jumped into his carriage and drove from the Hospital. In fact, there was no system, no regularity, either in attendance or teaching, and, having finished my four cases and published them, I did not again attend at Guy's. I used, after this, to come often into contact with Mr. Bransby Cooper. He was a frequent visitor at the Medical and Chirurgical Society, and invariably spoke. Let the subject be what it might, he rose to address the meeting, sometimes more than once in the evening. He always appeared to me to talk much better than he thought; he was clear and glib, but he seldom said much that was really worthy of recording.

That Mr. Bransby Cooper was not equal in mental power and manual dexterity to those of his colleagues at the Borough Hospitals I have mentioned, will, I think, be readily admitted; but he was a man of average ability and skill, and not an "incompetent" Surgeon. He was kind-hearted, and an immense favourite with the pupils. His lectures were popular, and his class well attended. I believe he never recovered completely the effects of the trial. This was evidenced in many ways, but more particularly by his being remarkably emotional. He could not address an audience on any subject which touched on a tender point without bursting into tears. We may sum up his claims to our esteem in a few words. He was a good, but not a great Surgeon; a somewhat weak, but highly honourable and amiable gentleman.

I may conclude my account of the memorable trial associated with his name, and of which he was the innocent victim, by a few general reflections on the the subject.

I stated in my last paper that the trial did immense injury to us as a Profession in every way; lowered us in public estimation, and sank the Medical press to the lowest level. If there *could* be an excuse for the tone then assumed by the *Lancet*, it might be urged that the evils were of such magnitude, and so deeply rooted, as to require the most violent remedies. But the history of all such struggles, whether the fight be literary or otherwise, is in favour of moderation on the part of the stronger antagonist.

> "'Tis good to have a giant's strength,
> But tyrannous to use it like a giant."

The narrative of the trial of Cooper *versus* Wakley may not be without its use at the present time. It must have been observed by many that, for some time past, there has been a disposition, in one quarter at least, to carry out the objects of the writers by what may be called, in the mildest language, "undue pressure" on individuals. This course, if persevered in, cannot fail to lessen the respectability of the Medical press. It is one that all men of matured thought and proper powers of judgment must deeply regret and strongly condemn. The young gentlemen who now "wield the thunder" should consider that the state of the Profession in 1828 was very different from what it is in 1870. Let them remember that, the stronger the cause, the less need of threats or abuse; that truth will prevail and be triumphant, whatever be the means resorted to to stop her progress or trammel her exertions.

NOTES OF THE GALLO-GERMAN WAR.

By a STUDENT.

No. II.

In my first paper I mentioned, in a brief and cursory way, the points of greatest interest which strike one most in following in the rear of a victorious army. I should now like, as far as I am able, to enter more minutely into the *modus operandi* of warfare—looking at it strictly from a Medical point of view. It must not be thought, however, that I intend to give a long, detailed account of the wounded, ambulances, Hospital arrangements, etc.; this, even if I were able to do it, would occupy too much of your valuable space, and, as regards a great many points, would be of interest only to a few of your readers. This must be left to more able hands than mine. In the first place, then, as to the Prussian soldiers themselves. I suppose that it is almost useless here to mention that they are a remarkably fine, well-built, broad-shouldered body of men, very strong, and inured to all sorts of dangers and difficulties. On an average they are about two inches taller than their adversaries. The Line is composed of young men, as a rule, the Landwehr being altogether formed of men who have seen upwards of fourteen years' active service, having previously served for that period in the Line. The army is composed necessarily of men from every rank of life—high and low, rich and poor serving together. One man I saw (a private) was a London merchant; and of course thousands of other instances of this kind could be brought forward. On account of this the education of the men is far above the average, some speaking not a few languages. Position there does not imply rank. Their kit weighs about 80 lbs., of which the chief part are the rifle, ammunition, knapsack, and greatcoat.

The *ammunition*, carried in cartouche boxes (two in number, placed one on either side of the buckle in front, and fastened to the belt) consists of forty rounds of ball cartridges. The *knapsack* contains a change of underclothing, including a flannel waistcoat and drawers, an extra pair of boots, a clothes and boot brush, a comb, and in some cases—what is there thought a great luxury—a pair of socks (more frequently, however, a triangular piece of canvas or linen, which is so folded as to entirely envelop the foot). The boots were not of the best, being stiff and hard from rain, and not a few sore feet resulted from them. The knapsack is carried well on the back by means of straps, which encircle the shoulders. There are no cross belts. However hard they may be pushed, or whatever they may have to leave behind them, they never forsake their knapsack; they always carry it into action, and take it off only when they are wounded or wish to lie down; and this in itself was a great contrast to the French, who, when suddenly surprised or in a retreat, invariably threw theirs away. The Bavarians, whenever they were able, saved their men when on the march by carrying their knapsacks for them in carts, following the regiments; by this means, after a day's march they were comparatively fresh, and had few stragglers; but, unfortunately, this could not always be done. The *great-coat* is one of the great mainstays of the Prussian soldier. When not in use it is rolled up and passed round the right shoulder, being fastened under the left, much in the same way as an officer's sash is; they always go into battle with it rolled up and slung over their shoulders. On one of the dead, after an action, I found no less than four bullets lodged in the great-coat; but this was not of much avail, as the poor man had received a mortal injury in the head.

They were severely punished if they threw any part of their kit away, unless they had a very good excuse for so doing. Their whole uniform and accoutrements are admirably adapted to meet the present requirements, when quickness of action and celerity in movement rule the day. At present the kit of both combatants is hardly warm enough, and from this both sides seemed to suffer alike; very many Zouaves, and especially Turcos, who were taken prisoners, literally perish from cold from this reason. Their food was good, each man getting his allowance of meat per diem pretty regularly, as they drive cattle along with each regiment. The cooking is done by each man for himself, by means of a little cooking apparatus placed at the top of his knapsack; these they hang over the bivouac fire. The soldiers now around Paris fare particularly well, as plenty of provisions are to be bought, and these at a reasonable price, Prussian coin being always returned in exchange.

It is an astonishing fact, and one that speaks well for the moral discipline of the army, that, although there was every temptation in the way, I cannot remember a single instance of having seen a Prussian soldier drunk, and have only heard of two, so that I am inclined to think the punishment for such an offence must be very severe. But when I entered Metz, just after its capitulation, I met over 120 French soldiers in that condition. In justification of this, however, it might be said that they had hitherto been stinted in their allowance of animal food, and had had just then every opportunity of procuring strong drink.

Personal cleanliness does not meet with that care and attention which perhaps it ought to, the most generally-received opinion being that washing and campaigning do not go well together.

In camping out at night, they strive to seek protection from the elements by constructing rude huts, if trees be at hand, making in the first place a kind of framework, against which boughs are propped; the floor is the bare ground, in whatsoever condition it may be. I have frequently seen them, wrapped up in their already damp greatcoats, with their knapsacks serving as a pillow, lying sound asleep on ground on which the rain had been pouring all day; but, nevertheless, they seem to do well, their general health in the great majority not being affected; but I should think that it must surely tell upon them later on. Straw was a scarcity, difficult to be obtained even for the wounded to lie upon, and still more so for the common soldier, whose bed was but too often a sea of mud.

To satisfy the wants of nature, a deep trench was dug in the rear of the bivouac, and along one side was a simple pole, propped up at a short distance from the ground by two uprights; at the end of every day this trench was partly filled in with the mould already excavated, and hence every thing on this score was as perfect as it could be, no annoyance whatsoever being created by its presence. To guard against any infection—but, perhaps, as much as anything, to keep the men from *ennui*—the camps are constantly struck and moved to a short distance further off.

When marching, the distance usually traversed is from fourteen to fifteen miles; a forced march is from twenty-three to twenty-five miles per diem; and when this, as it often is, is continued for two or three days together, it tries the men severely. The footsore lag behind, but manage to get on somehow, generally availing themselves of any carts that may happen to be on the road. Those who from illness are unable to proceed, fall out, and sit by the road-side, the regiment when it comes to the next village sending back carts, which pick them up and carry them to the nearest railway station, Hospital, or town occupied by Germans. The staff of Surgeons was very deficient, and this was painfully found to be the case after any engagement. The usual allowance to every army corps of 36,000 men is seventy Surgeons, with about fifty attendants, and this number includes all connected with the care of the wounded. All medicines were committed to the charge of a field apothecary, to whom applications had to be made in writing for the various drugs required. They had generally a very limited supply, and only then the most ordinary drugs. Of chloroform there always seemed with the Germans to be a sufficiency.

The ambulances now need a short description. There were from four to eight ambulance waggons attached to each army corps; these were large, four-wheeled carts, drawn by two horses, and might be said to be of two kinds, the one shaped something like a baker's cart, with the lid opening on hinges, the other like a hearse, with the door behind. The former, when not in use, contained mattresses, but when used only the slightly wounded were placed in them—sitting on the floor; these were almost always filled directly after an action, since, in the majority of cases, the wounds sustained were not severe ones; the lid of this waggon was kept open by an iron bar. The latter, or hearse kind, contained two six-feet stretchers, alongside of one another, on which the badly wounded were placed. Underneath were lockers containing the various surgical appliances and dressings. Ventilation was well provided for by the canvas covering with which this description of waggon was provided. From six to eight men were attached to each, of whom four were sick-carriers, two Doctor's servants, a driver, and another man, whose duty it was to make himself generally useful at operations.

I have heard that some one has asserted that every officer carries a tourniquet, and every man in the Prussian army a bandage in his knapsack; if so, they keep the fact very dark, and forget to use them when they are wounded. A vast number of men who die on the battle-field could be saved if they had tourniquets or somebody to arrest hæmorrhage; but as Doctors are so scarce and are so urgently wanted, it is folly for them to expose themselves to danger by going under fire. Thus, hundreds—nay, even thousands—die from the fact that there is no one who gives them a few general rules as to the arrest of hæmorrhage by tourniquets or otherwise. It may be a fallacy, but I cannot help fancying that soldiers might each carry a tourniquet when they go into action in their pockets, or might be instructed how to make them from their pockethandkerchiefs or some equivalent.

The ambulances keep pretty near to their army corps—in fact, on the march, they are as much part and parcel of the army corps as the pontoon train. On bivouacing, however, the ambulances seem to fall somewhat in the rear. After a battle is over, they trot up to the field, and work night and day till all are removed. As may be supposed, with only thirty or forty waggons, the work of clearing 20,000 or 30,000 wounded from such a plain as by Gravelotte, Mars-la-Tour, and St. Privat which stretches many miles in length and breadth, would not do; so that all the towns and villages, far and near, are ransacked for carts. Straw, if it can be got, is put in them, and they do the real work of carrying the wounded from the battle-fields to the Hospitals.

BOARDING-OUT OF PAUPER CHILDREN.

By an order dated November 25, 1870, the Poor-law Board have carried out their intentions, as regards certain unions and parishes in populous places, with reference to the boarding-out of pauper children. The order is accompanied by a circular letter, which is too long to print in full, but of which portions appear specially worthy of attention. The regulations previously in force allowed the guardians to place out children in their own union or parish, but, under the existing orders, they could not board out the children beyond those limits. "The consequence has been that the guardians of large urban unions have been prevented from availing themselves of various proposals made to them for training orphan and deserted children in homes in agricultural parts of the country, and, consequently, from trying the boarding-out system under those conditions which alone seem likely to give security for its success."

Much stress is laid upon the success achieved by district or separate schools, while, in regard to workhouse schools, it is allowed that "the difficulties are so great, that the best efforts of boards of guardians to render them efficient are often defeated. Imperfect classification, incomplete separation from the adult inmates, the associations inseparable from the workhouse, and the circumstance that orphans who may be unfortunately thrown out of employment a few years after leaving the workhouse, invariably look upon it as their natural home, where they have left their friends and acquaintances, the fluctuating term for which children are admitted, and the smaller competition for the posts of schoolmasters and mistress in workhouse as compared with other schools, constitute difficulties of too formidable a character, both in social and educational respects, to justify any preference for the system if any other practice should appear to offer reasonable chances of success."

To these schools, equally with district schools, there is also the objection that the monotony and confinement being necessarily unbroken, the development of both mind and body is checked. The boarding-out system aims at solving these problems, and while, as an intellectual agency inferior to the district schools, it is looked to to restore to the children the advantages of that family life from which it is a calamity for them to be entirely excluded, it is further hoped that the boarded-out children may be merged in the general body of the population. The Board are, however, fully aware of the risks to which the system is exposed, and have founded their order "on the assumption of voluntary associations being formed for the purpose of co-operating with boards of guardians in providing and superintending homes for pauper children, evidence having been placed before the Board of a desire on the part of many persons in several parts of the country to devote time and personal attention gratuitously to this useful work. The Board are aware that many objections may be raised to the formal recognition of voluntary organisations formed with a view of taking a certain part in work of which the ultimate responsibility must fall on legally constituted bodies. But the Board see no reason why such a voluntary agency should not be made available, provided due securities

are taken (1) for the respectability and disinterestedness of such voluntary associations; (2) for the regularity of their proceedings, and for the due observance on their part of the legal requirements attaching to the work which they undertake."

The technical terms of the order are fully explained. Among other noteworthy points are the following:—That not more than two children are, as a rule, to be placed in the same family, as this would be liable to revive the objectionable "farming-out" system. No contract must be entered into to take for a round sum a given number of children; nor must advertisements be issued, inviting the applications of persons willing to take charge of the children. References will be required as to the standing and qualifications of those who may apply for authority to act on Boarding-out Committees.

Wishing to leave as much latitude as possible to the guardians, the Poor-law Board consider that engagements should be taken with respect to the following points:—

1. On the part of the guardians:—(*a*) As to the sum which they will pay for each child weekly on a suitable home being found. (*b*) As to the mode of payment; for instance, as to the periods at which the money will be remitted. (*c*) As to the clothing of the child. (*d*) As to school fees. (*e*) As to the payment of Medical fees, medicine, and extra nourishment in time of sickness. (*f*) As to the payment of burial expenses in case of the death of the child.

2. On the part of the Committee:—(*a*) To find homes for a certain number of children. (*b*) To visit the homes at certain intervals. (*c*) To insist on the fulfilment of the regulations prescribed by the guardians and by the Poor-law Board. (*d*) To make such reports to the guardians in such matters as may be agreed upon.

One of the most difficult arrangements to be determined relates to the Medical attendance to be given to the children. Boards of guardians will be bound to take precautions that Medical attendance is promptly secured for such children as may require it. At the same time it will be necessary to provide a proper and continuous check over the expenditure which may thus be incurred.

The children boarded out must be those who, in consequence of the death, desertion, or disability of their parents, are practically orphans. The limit of age is from two to ten years. The maximum limit of payment to the foster-parent is 4s. per week. The limit of distance is five miles from the home of some member of the Boarding-out Committee. The children are to be visited at intervals of not more than six weeks, and reports of the visitor are to be made to the Boarding-out Committee and to the guardians. As the success of the system appears to depend entirely on the regularity of inspection, if "cases should occur of Boarding-out Committees becoming remiss in this respect, immediate action will have to be taken, either for the removal of the children, or for their inspection by other means. Accordingly, the order prescribes that if the guardians are not informed as to visits paid to the children at their respective homes for four consecutive months, the guardians must either arrange for the visiting of the children by their own officers, or take back the children." As, moreover, under Section xx. of 11 Vic., cap. 109, any Poor-law inspector may visit any place where any poor person is lodged, the Poor-law Board will have no difficulty in enforcing proper supervision.

Finally, the Board specially recommend:—

1. That children should not, save in special cases, be boarded with relations or with persons in receipt of relief out of the poor rates.

2. That children should not be boarded out in any home where the father is employed in night-work; and that in every case the foster parents should be by preference persons engaged in out-door, not in sedentary, labour.

3. That in choosing the home especial attention should be paid to decent accommodation and the proper separation of the sexes in the sleeping-rooms. Children over 7 years of age should never be allowed to sleep in the same room with married couples.

4. That no child should be boarded out in a house where sleeping accommodation is afforded to an adult lodger.

5. That particular attention should in all cases be paid to the schoolmaster's quarterly report; and if after two warnings to the foster-parents the report continues unfavourable, the child should be instantly withdrawn, and either transferred to another home or sent back to the union from which it came.

6. That great care should always be given to providing the children with good ordinary clothing. No child should ever be sent by the guardians to be boarded out of their union or parish without a suitable outfit, for the repair and renewal of which a quarterly allowance, not exceeding ten shillings, should be made to the foster-parents by the guardians. Anything resembling a "workhouse uniform" should be most carefully avoided.

7. The Board have been unwilling to lay down any regulations as to the size of towns or villages to which pauper children might be sent, but they recommend the adoption of the rule, that children should not be sent out to homes in places containing more than 15,000 inhabitants. All boarding-out in larger towns should be avoided.

We can heartily join with the Poor-law Board in inviting the cordial co-operation of boards of guardians in their endeavours so to arrange and organise the system of boarding-out orphan and deserted children as to secure, wherever it be adopted in England and Wales, as satisfactory results as those which have crowned the labours of its supporters in Scotland and Ireland.

REVIEWS.

A System of Practical Surgery. By Sir William Fergusson, Bart., F.R.S. Fifth Edition. John Churchill and Sons. 1870.

After a lapse of thirteen years, the oldest acquaintance may be expected to be considerably altered, if not absolutely grown, and so it is with the tried friend now greeting us for the fifth time. At first sight, indeed, the recognition is hardly possible, for the little fat volume which modestly took its place amongst the series of excellent manuals so familiar to all Medical students has given place to a grave and dignified tome twice the size of its predecessor, whilst the well-known woodcuts assume a new importance, adorning large pages, from which the old voice speaks to us in large, bold type—and seems to acquire thereby additional weight and authority. With this new addition of the "Practical Surgery," and Mr. Paget's classical work on "Surgical Pathology," the Surgeon is well furnished with instruction for both hand and head, and it is no mean praise of both books to say that they are fit and worthy companions. The publication of the "Lectures on the Progress of Anatomy and Surgery," in 1867, has doubtless delayed the appearance of the present edition of the older work, and it has left an unmistakable impression on its pages—for the prominence given in the "Lectures" to conservative Surgery is reflected in the increased attention now bestowed on this branch in the "System." We notice also with pleasure that the old dedication is, with well-timed courtesy, replaced by a kindly inscription to the distinguished Surgeon who now occupies the chair filled for thirty years by our author. In running through the book to see in what particulars changes have been made, we notice that local anæsthesia is now introduced when speaking of chloroform, but its employment, whether by solution of freezing mixtures or by evaporation of liquids, is not too warmly praised. It is said to "suit well for superficial incisions not involving much nicety in the application of the knife, such as in opening abscesses, or dividing skin in erysipelas; but it is worthless in operations requiring careful movements among deep-seated parts." No doubt this statement is made under the common impression that sensibility returns to the part as soon as the hardness of the congealed tissues disappears; but it has been shown that, if the part be kept frozen for a few minutes, anæsthesia remains for some considerable time after the tissues have regained their wonted pliancy, so that even considerable amputations have been painlessly performed after freezing the surface thoroughly by means of ice and salt. A case of amputation of the forearm well illustrating this observation was contributed to a Medical contemporary a few weeks ago by an Australian Surgeon.

Reference is made to the recently revived method of arresting hæmorrhage by torsion; but here, too, Sir William has not much to say for the improvement, having never seen reason to prefer this plan to that with the ligature. It is objected that the thoroughly twisted bit of vessel is as much a foreign-body in the wound as a ligature thread, whilst the latter gives so much temporary security that it should, as a rule, be preferred. The effect of torsion in averting the risk of secondary hæmorrhage is, however, not alluded to. Acupressure is also mentioned, but the author does not seem kindly disposed towards it, still rather trusting to an old friend in the ligature than believing in the "alleged advantages and superiority" of the new method. Carbolic acid is now attracting so much attention that we may profitably extract all that one of our first

English Surgeons has to say of it. The extract is not a long one, but it is the only place in the volume where we can find any reference to the subject, and it has the merit of giving in a few words the probable reason why this method has not made greater way amongst us :—

"Within these few years, the use of carbolic acid in solution or in paste has been much extolled by Professor Lister for cases of compound fracture, both as a deodoriser and as having special virtues in preventing or limiting the formation of pus. Hence has arisen the extensive use of carbolic acid in all wounds generally when suppuration may be anticipated, and there are many Practitioners who seem to be convinced that it has extraordinary powers in arresting suppuration. It is beyond doubt that thousands of wounds have united without suppuration when this method has been employed; but the same may be said of instances where it has not been used, and suppuration has often occurred when carbolic acid dressings have been faithfully applied."

Other applications to fresh wounds—as, *e.g.*, Mr. De Morgan's use of solutions of chloride of zinc, which may be said to be the father of the method of treatment by carbolic acid and its allies—are not even referred to.

Perhaps the bitterest criticism in the volume occurs in the remarks on the treatment of cancer: "The treatment of tumours, particularly of cancer, by means of caustic has attracted considerable attention of late years. Spasmodic periods seem to arise from time to time. Generally the empiric takes the initiative, and then weak-minded Professionals fall into the rank—charlatan Doctors and patients vie with each other in praise of the nostrum. At last the delusion fades away, or gives place to a new 'infallible,' whose story runs the same course. The latest 'thing' in that way has been heretofore respectable acetic acid!"

After all, though, this becomes rather melancholy fun, when we read that the author—although strenuously insisting on the knife as the only remedy (a position singularly confined to operating Surgeons, by the way)—can yet give us no better hope of its ultimate success than "any other unprejudiced observer of such cases." Now, seeing that it is still an open question with most Surgeons whether amputation of the breast for cancer does or does not prolong life—taking an average of a large number of cases, and considering the immediate risks of the operation—it does seem rather hard upon those who seek for other remedies to hold them up to ridicule as "charlatans," or, at best, as "weak-minded Professionals." In this portion of the book important additions have been made, including some wonderful tumours about the face and neck—tumours whose size suggests that previous editions of this work have not received sufficient attention at the hands of those who had the care of the patients.

Mr. Henry Smith's treatment of hæmorrhoids by the clamp and cautery is favourably noticed, the author describing the operation as both ingenious and effectual, and having been much pleased with its results, both as regards pain and rapid convalescence.

Ovariotomy has at length won such a position that it could hardly longer be passed by in a work on Operative Surgery, and accordingly we find now, for the first time, that it receives a fair share of attention. Due credit is given to John Lizars as the originator of the operation in this country, and the various steps required in the removal of a large ovarian tumour are given with the perspicuity and attention to details which characterise every portion of this eminently practical work.

Of course the sections relating to Resections of Joints bear copious marks of careful revision and amplification, and, in fact, form perhaps the most valuable parts of the book, abounding, as they do, in illustrative cases and practical suggestions. Among formidable operation cases introduced into this edition, one of the most instructive is that of a girl, aged 20, from whom Sir William successfully removed the whole upper extremity, including the scapula, for recurrent tumour in the axilla and scapula.

The chapters on the Surgery of the Genito-urinary Organs also bear marks of careful revision, and of consequently enhanced value. Indeed, the whole of the book is so greatly improved in this last edition, that we recommend it more cordially than ever as a thoroughly practical companion, both for the Student and Practitioner of Operative Surgery.

Sir Roderick Murchison has had an attack of paralysis, but hopes are entertained of his recovery.

GENERAL CORRESPONDENCE.

FUNGOUS PATHOLOGY.—DR. BEALE IN REPLY TO DR. BUCHANAN.

Letter from Dr. Beale.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the short paper I wrote (*Medical Times and Gazette*, November 12), I remarked that Mr. Simon and Dr. Sanderson had favourably entertained Hallier's theories, which were long ago given up by most observers who had studied the matter; some, indeed, believed from the very first, and upon very good grounds, that, in many particulars, these theories were not to be trusted. It is not likely that Dr. Sanderson should have "espoused" the "fungous pathology of cholera." He could not do that in the face of all that has been advanced against it; but I imagine there is little doubt that Dr. Sanderson looks with favour upon fungous pathology generally. On p. 246 is a figure (fig. 9) called "cryptococcus cells, obtained by the cultivation of vaccine, magnified 350 diameters, and drawn by the author with the camera lucida." Dr. Sanderson remarks that—"This figure shows the form of these cells, and the mode in which they multiply by budding, better than that copied from Hallier."

Now, I would ask whether Dr. Sanderson is quite sure that these unquestionable fungi were in the vaccine when it was fresh, and possessed the properties for which vaccine is distinguished. I have examined vaccine many times, by powers as low, lower, and higher, and never saw anything like the bodies represented. Is it not most probable that the fungi in question have nothing whatever to do with the vaccine, and that they grew in the fluid just as similar bodies grow in urine and other animal fluids exposed to the air? I am sorry thus to criticise the microscopic observations of Dr. Sanderson; but it seems to me that the manner in which Dr. Sanderson and Mr. Simon have expressed themselves, not only invites criticism, but renders it a duty to criticise.

On reading the report of the Medical Officer, an innocent reader would be led to suppose that a great discovery had been made in the year 1869. The italics in the following sentences are my own:—"We believe that at last (1869) *it has become possible, with the assistance of the microscope*, to make direct studies of the intimate nature and natural history of contagia!" "I am particularly glad to report that *our* scientific work of the year includes a begining of labour in this direction" ("direct studies of the intimate nature and genesiology of the most tremendous causes of disease"). "Our ætiological investigations of tubercle . . . . . had led us to confines where it seemed we were entering on questions of zymotic pathology"—and very much more in the same strain.

If Dr. Buchanan will come forward to defend these claims, or to support the fungous pathology generally, it will give me pleasure to meet him, and I am sure that the discussion would be productive of good, and would be studied by many earnest workers and thinkers with the greatest interest.

The conclusion to which I have been forced, after considering the question as carefully as I have been able to consider it, is, that a case cannot be made for the fungous theory of disease unless most positive facts of observation are utterly ignored. The writers of this report have not only ignored many facts and observations opposed to their theory, but they have failed to make their investigations with due care. They have not employed magnifying powers which can now be used with facility and with advantage. A power magnifying three times as much as the highest power employed by them can be used without difficulty, even for the investigation of animal tissues. In such an inquiry as the one in question, a power of 350 diameters, or even 500 diameters, is not likely to lead to the discovery of much that is new.

The writers of this report have not only ignored work that was done some years before their observations commenced, but they have advanced new and imperfect work to bolster up a theory of fungous pathology which can only serve to retard progress, for fungous pathology rests on no firmer ground than might be found for the establishment of a theory of *fungous physiology*.

I much regret to have to speak thus, but I feel that I should be fully justified had I spoken much more strongly than I have done concerning the remarks of the Medical Officer of the Privy Council upon the scientific questions referred to on pages 58, 59, and 60 of his twelfth report. I shall consider the matter more in detail elsewhere. I am, &c.

Lionel S. Beale.

ALGIERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—As I know that many invalids have been deterred from thinking of spending the winter in Algiers on account of the difficulty of getting there *viâ* France, will you allow me to inform your reader that I find that the *Magdala*, one of Moss and Co.'s screw steamers, leaves Liverpool on the 10th proximo, proceeding direct to Algiers. I have a letter from Col. Playfair, H.B.M. Consul-General at Algiers, within the last week, and he states that Algiers is as tranquil as ever, and that the winter promises to be a genial one. I am, &c. A.M.

November 26.

VENEREAL SORES.

[To the Editor of the Medical Times and Gazette.]

Sir,—The letter of "A Student" opens up questions as to the pathology of syphilis, not only of scientific interest, but especially, at the present crisis, of great practical importance. I know, from conversations I have had with various Practitioners, that the impression is very general among Professional men, that the condition which communicates syphilis in the female is readily recognised on examination with the speculum; in fact, that chancres hard or soft were always to be detected wherever there was danger of infection. As this impression is entirely erroneous, I hope you will accord me space to mention a few facts in connexion with a subject of so much practical importance. Mr. Evans, an army Surgeon, who wrote a most excellent work on venereal sores, was, I believe, the first to remark "that an altered secretion that cannot be detected is sufficient for the production of disease," adding that when he attended the examinations of 200 women of the lowest description, who were frequented by the soldiers belonging to the army of occupation at Valenciennes, that no disease could be detected in the women, and yet the Hospitals were filled by diseased soldiers infected by these very women. He noticed exactly the same thing at Lille, and observes "that the condition that communicates disease in the female is only to be known by its effects;" and says, "it is thus that government regulations, made for preventing the propagation of venereal diseases, so completely fail in the attainment of their object."

Dr. Macloughlin, who was for twenty-seven years in practice in Paris, whenever a gentleman applied to him suffering from syphilis, endeavoured to ascertain from what person the disease had been contracted; and it was his regular practice, in company with the French police agents, to visit the brothels, and find out the person who had communicated the disease. He took considerable trouble in this matter, and used, on each occasion, to give the police agent a napoleon, and the woman a napoleon.

In all these cases the woman was submitted to careful examination by the police-Surgeon, himself, and others; and Dr. Macloughlin declares that "they were scarcely ever able to detect disease in the female—that it was excessively rare for them to discover the source of infection in the female." In one gentleman, where secondary symptoms of a severe type were developed very speedily after the primary symptoms, in a case pronounced to be unequivocal syphilis by M. Biet and others, the only two women with whom the patient had ever had connexion were brought up, and repeatedly examined by five or six Medical men, including the police-Surgeon, and not the slightest trace of disease could be detected in either of these women. Dr. Macloughlin had immense opportunities for studying the disease in Paris and elsewhere; and whatever we may think of his peculiar opinions, no one can deny that his testimony as to facts is thoroughly trustworthy and invaluable. Mr. Skey, in a letter written to Dr. Macloughlin, on May 19, 1864, and referring to these facts says:—"I am convinced, in common with many Surgeons, that disease is not necessary to the same form of disease in the other sex, and that every variety of sore, and every form of purulent discharge, from the slightest to the severest in intensity, can be obtained from women who have not in their own persons indications of disease of any kind." Dr. Aitken, who is well known as one of the most eminent of practical Physicians, says, in his work on the Science of Medicine, fifth edition, revised and published last year:—"Medical inspections are formal and look useful, but the infecting sore, the true syphilitic one, can rarely be detected in the female." In another part of this work he observes:—"The syphilitic sore, when it does occur in women, is readily overlooked, even when searched for with great care, aided by a vaginal examination with the speculum." Mr. Simon, who is acknowledged to be one of the first pathologists in Europe, says:—"The various local states which most habitually spread the infection of true syphilis are constantly overlooked in examinations made expressly for their discovery." Dr. Alfred Fournier, a great authority on this matter, who has succeeded M. Ricord as Surgeon to the Hôpital du Midi, the venereal Hospital for males in Paris, has written a thesis on syphilitic contagion, and, in conjunction with M. Puche, carefully traced the disease to its source in 873 cases. The result is contained in the accompanying table:—

Males infected by public prostitutes, registered and periodically examined	625
Males infected by clandestine prostitutes	46
" " kept women, actresses, etc.	52
" " workwomen	100
" " servant women	26
" " married women	24
	873

Thus, out of 873 cases coming promiscuously under the care of these gentlemen, 625 contracted syphilis from women registered by the police, carefully and frequently examined by the police-Surgeon. Dr. Vintras, in his evidence before the Venereal Commission, says, in confirmation of the above facts:—"You will find almost all chancres (the local sores that produce true syphilis) are, in Paris, derived from women who make prostitution their sole business," and are consequently registered and subject to periodical examinations. Indeed, it is a fact well known to experts, even before Mr. Morgan's experiments, that true syphilis is constantly communicated by secretions when there are no sores whatever. Suspicious-looking secretions are universal among prostitutes, and very common to all women, and it is the usual practice among the examined women to use syringes before presenting themselves, so that the Surgeon has no ground even for suspicion in many of the worst cases. So well is the contagious nature of apparently healthy secretions of persons who have suffered from secondary syphilis understood on the Continent, that Guichard and Davila insist that not only the genital organs must be carefully inspected, but also the anus, mouth, throat, stripped skin, etc.; and Lanceraux in his recent work remarks:—"Since it has been admitted that secondary lesions are contagious, and that they produce infection more frequently, perhaps, than the primary lesion, introspection of the anus becomes indispensable."

In a recent lecture, published in the *Lancet*, Mr. Skey stated that some of the worst cases of gonorrhœa were derived from women free from disease, but who had recently recovered from menstruation; and the practical inference to be derived from these scientific facts is simply this—that no method of examination can guarantee freedom from disease, either from syphilis or gonorrhœa; and that the Contagious Diseases Act is all a mistake, and calculated only, by affording a false security, to increase the evil it is intended to repress.

I am, &c., L.R.C.P.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 22, 1870.

Dr. Burrows, F.R.S., President, in the chair.

Dr. John Harley read

A THIRD COMMUNICATION ON THE ENDEMIC HÆMATURIA OF THE SOUTH-EASTERN COAST OF AFRICA, WITH REMARKS ON THE TOPICAL MEDICATION OF THE BLADDER.

An almost daily opportunity of watching a case of this disease for nearly a year enables the author to give precise information concerning, firstly, the prostatic form of the disease and its treatment; and, secondly, the structure and development of the parasite. The prostatic form of the disease is attended by an intermittent discharge of venous blood, never exceeding a teaspoonful, and always mixed with urine, recurring after variable intervals of from two to fourteen days, and continuing for several days in succession. The morbid appearances are confined to the last tablespoonful of urine, which contains the blood and casts (composed of mucous or blood) of the passages in which the parasites lie. Apart from the passage of blood and the egg-bearing casts, there was no inconvenience—no impediment to the flow of urine, nor the slightest irritation of the

genito-urinary apparatus. The treatment was at first general, consisting in the use of such remedies as iodide of potassium, henbane, etc., which are eliminated unchanged by the kidneys. This general treatment affected the parasite to a limited extent only, and was, therefore, supplemented by local medication in the form of injections of strong infusions of wormwood and quassia, emulsions of oil of male fern in these solutions, and of solutions of iodide of potassium and some other salts. The author describes the effect of each of these drugs, and relies most of all on iodide of potassium, which was given in quantities varying from ten to thirty grains, in five ounces of infusion of quassia, as a daily injection. Evidence of the absorption of this remedy was manifest, and the effect was very beneficial; and by the intercurrent use of injections of oil of male fern, the parasitic products with which the tunnels in the mucous membrane are stuffed were thrown off, and the parasites destroyed. Morbid products, including portions of the adult animals, and laminated corpuscles, derived from the prostate, are figured and described. With a view to its detection in the waters of the infected districts, the author has very carefully described and delineated the embryo of the parasite, which is a little ciliated animalcule, strongly resembling some of those found in stagnant water in this country. He says: "I have several times succeeded in liberating simultaneously from the egg as many as twenty embryos, and watched their movements in a drop of water under the microscope. No sight can convey, either a more vivid impression of the activity of animal development, or a more complete realisation of the energy of parasitic life. It is an interesting display, but its general attractiveness is certainly not increased by the unavoidable reflection that the tissues and fluids of the human body may readily become the abode of these lowly animals." Experiments were made to determine whether the parasite may be developed from ova introduced into the body. From negative results, and from other facts, the author concludes that, as a rule, this does not happen, from some cause which prevents, or too long retards, the liberation of the embryo from the egg. He is, however, inclined to think that, if the hatching be timely effected, or if the liberated embryo be artificially introduced into certain parts of the body, more especially the bloodvessels, its further development into the adult parasite may proceed. As to the primary mode of invasion, the author mentions the fact that the colonists of the infected districts are early attacked by a peculiar kind of boil, which passes into an indolent ulcer, and which, ultimately healing, leaves a large and indelible scar. He thinks it very probable that these boils result from the insertion of ova beneath the skin in the act of bathing, and that the subsequent progress of the ulcer, and the infection of the genito-urinary organs, is due to the liberation of embryos (which may readily occur upon the naked surface of an ulcer), and their convection or ascent to the pelvic organs along the veins that lead to them.

The PRESIDENT spoke of the great value of the researches which Dr. Harley had, now for the third time, communicated to the Society; and said that, possibly, other diseases attended with hæmorrhagic or serous discharge from mucous membrane, might be due to parasitic invasion.

Mr. JOHN WOOD inquired whether there had been any opportunities of post-mortem examination of the prostate in these cases, and whether the parasite invaded any other part of the urinary organs.

Mr. FAIRLIE CLARKE suggested the application of the solid nitrate of silver to the prostatic portion of the urethra.

Dr. SYMES THOMPSON inquired as to the extent of country in South Africa over which the disease prevailed.

Dr. WEBSTER inquired whether the disease prevailed chiefly in high or in low localities. He believed that loss of blood was more common at elevated than at low situations, and under low barometric pressure. He inquired also the state of the water.

Dr. CHURCH asked whether anything was known about the stages of development of the parasite, and suggested that it might require two hosts.

Dr. HARLEY, in reply, said that he hoped shortly to receive more detailed information from a Practitioner in Natal about the post-mortem appearances, and also about some other points that had been raised. The parasite was sometimes located in the pelvis or veins of the kidney; and, when thus situated, its embryos were apt to form the nuclei of oxalate-of-lime renal calculi. The disease was chiefly seen in the district of Port Elizabeth, where the water was said to be "brackish," and was almost confined to stations within twenty miles of the coast, and elevated not more than 300 feet above the sea level.

Dr. GEORGE JOHNSON read a paper on

A CASE OF TRAUMATIC TETANUS; RECOVERY AFTER THE REMOVAL OF A FOREIGN BODY FROM THE WOUND, AND THE ADMINISTRATION OF CHLORAL.

H. N., aged 13, a newspaper boy, was admitted into King's College Hospital on June 24. Three weeks before, whilst getting over a hedge, he ran a sharp piece of wood into his thigh. He stopped the bleeding by tying a handkerchief round the thigh. The wound soon healed, and he is confident that no portion of the pointed wood remained beneath the skin. About nine days before his admission the lower jaw began to feel stiff; this gradually increased until it interfered with mastication. Then the muscles of the trunk and limbs began to be affected with spasm, and he came into the Hospital. On his admission he was well nourished, with a healthy colour. There was a peculiar expression of the face, resulting from spasm of the occipito-frontalis, corrugator supercilii, and other facial muscles. He could separate the incisor teeth only to the extent of about half an inch. There was some rigidity of the abdominal and erector spinæ muscles, and movement of the body occasionally increased this rigidity to a painful degree of spasm, the pain being especially severe in the back. The spasm also implicated the muscles of the legs. The temperature, pulse, and respiration were normal. At the upper third of the thigh there was a cicatrix about half an inch long, the scar and the tissues beneath felt unusually hard, and pressure caused considerable pain. It was suspected that there might be some foreign body beneath the skin, therefore chloroform was given, and an incision was made through the cicatrix by the House-Surgeon, Mr. Whitmore, who discovered and removed a small, dark mass; this proved to be a piece of woollen stuff from the boy's trousers, which had been driven in, and lodged beneath the skin. The piece of wool was about the size of a small pea. A poultice was applied to the wound, and, during the next twenty-four hours, no medicine was given. There was continuous rigidity of the muscles, with occasional paroxysms of spasm and pain. He was now ordered to take fifteen grains of chloral hydrate, at first every four hours, afterwards at longer intervals. Between June 26 and July 9 he had twenty-four doses of the chloral, amounting in all to 360 grains. The symptoms gradually subsided, the spasms became less frequent and less severe, the last slight attack of spasm occurring on July 13; the wound healed, and he was discharged cured on July 27.

Dr CHOLMELEY inquired whether tetanus had any tendency to wear itself out and to terminate in recovery, if the patient were kept alive sufficiently long.

Mr. SPENCER WATSON related the particulars of a case of tetanus that had been under his care in the Great Northern Hospital, and that had recovered under the use of chloral in full and frequently repeated doses. The disease followed a wound of the tongue by a splinter; but the splinter had been removed prior to the occurrence of spasm.

Mr. BRUDENELL CARTER inquired whether the state of the circulation in the optic nerve had been observed by the ophthalmoscope during the chloral narcotism.

Dr. GEORGE JOHNSON briefly replied. He dwelt upon the importance of the removal of the piece of cloth, and admitted that he had neglected to make ophthalmoscopic observations.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 15, 1870.

RICHARD QUAIN, M.D., President, in the Chair.

MR. JAMES E. ADAMS exhibited a specimen of Dislocation of the Wrist. This specimen was taken from the body of an old woman in the dissecting-room of the London Hospital College, and is without any history. All the tendons were normal in their insertions and relations, lying in healthy synovial sheaths, and there was no sign of any old inflammatory mischief about them or the ligaments. When the tendons and annular ligaments were removed, it was observed that the proximal end of the metacarpal bone of the first finger was of normal shape and size, and fitted into a depression on the inner side of the articular end of the radius. The end of the middle bone of the second finger was opposite to the interval between the radius and ulna, but articulated with a small piece of bone, which was probably the remains of the os magnum. The fifth metacarpal bone articulated with the unciform, which articulated closely with the inner side of the ulna. On the radial side of the unciform a process of bone reached from the ulna to the base of

the fourth metacarpal bone. This Mr. Adams took to be the styloid process of the ulna. On the palmar surface the unciform process and the pisiform were very close together, and so placed that a line passing through the unciform process and the centre of the palmar bone had a direction parallel to the long axis of the ulna. The metacarpal bone of the thumb articulated with the remains of the trapezium. A horizontal section showed the scaphoid and semilunar, and probably the cuneiform, to be fused together, the cancellous texture being continuous. The inferior radio-ulnar articulation was also partially anchylosed. The remains of the carpal bone projected in front of the fifth metacarpal bone, and the ulna inclined to one another at an angle of about 130°.

Dr. SILVER exhibited the Supra-renal Capsules of a man, aged 24, who had died of Addison's disease. The man came under his care at Charing-cross Hospital, in the month of June, and he afterwards became an in-patient. He had been growing dusky for two years; previous to that he had been fair, but the cause of this change was rendered somewhat obscure by an attack of ague two years before. He was very weak, complained of inability to take a deep breath, and had palpitation. Some time before death he showed cerebral symptoms. He died in the night. After death the vessels of the brain were found to be loaded, the ventricles containing more fluid than ordinary, and the corpora striata softened. The lungs were tolerably healthy, the left apex slightly adherent, and both containing masses of obsolete tubercle. The spleen was normal. The supra-renal capsules were adherent, and completely converted into a calcareous mass on either side. He considered the case important, as tending to show the connexion between Addison's disease and tuberculosis. He also alluded to two similar cases he had encountered in visiting country Hospitals.

Dr. POWELL brought forward a series of specimens, and a table of fifteen cases which had occurred at the Brompton Hospital, illustrating the Pathology of Fatal Hæmoptysis in Advanced Phthisis. Specimen 1 consisted of the lung of a man, aged 25, who had died, while under Dr. Powell's care, from exhaustion, three days after his first attack of hæmoptysis. Both lungs were the seat of lobular pneumonic consolidations in all stages of degeneration, and in the right lung there were some old smooth-walled cavities, the largest of which, situated at the base, contained a sacculated aneurism, the size of a small walnut, of a secondary branch of the pulmonary artery. The aneurism had thin, brittle walls, contained few coagular lamina, and had ruptured by a small opening. Specimen 2 showed a small sacculated aneurism situated in the wall of an old indurated quiescent cavity, which had given rise to abruptly fatal hæmoptysis, in a patient of Dr. Symes Thompson's, at the Brompton Hospital. This patient had been ill for several years, but had never had hæmoptysis before. Specimen 3 had been removed from a patient under Dr. Powell's care, who had died suddenly of hæmoptysis on October 12, 1870, having had previous attacks of copious hæmoptysis in January and September. This specimen showed a large thin-walled cavity, the surface of which was in a state of active ulceration, which had led to extensive exposure of large vessels, and erosion of their walls. From one of these branches of the pulmonary artery the hæmorrhage had occurred; and on the same vessel, a little higher up, a small aneurism was situated, partially obstructing a bronchus. Specimen 4 was removed from a patient of Dr. Pollock's, who had died from rapid tubercular phthisis, but had never had any important hæmoptysis. This specimen, like the preceding, showed a large cavity in a state of active ulceration, leading to extensive exposure and erosion of vessels. It illustrated the long-continuing patency of large vessels in the walls of cavities, and the formation of fibrinous coagula in them, attached to the side first exposed, and invaded by the ulceration, and the subsequent removal by the same process of the vessel-wall, leaving the coagulum bare while the vessel still remained patent. Of the 15 cases of fatal hæmoptysis in the table (including 3 of the above cases), 12 had resulted from rupture of the pulmonary artery in a cavity, preceded in 11 by dilatation (5 sacculated, 6 varicose), and in 1 case from ulcerative erosion. In 3 cases the source could not be discovered. Dr. Powell regarded old-standing unilateral cases of phthisis with quiescent cavities as most favourable for the formation of aneurisms or ectasias of branches of the pulmonary artery; cavities in a state of active ulceration as most liable to cause fatal hæmorrhage by erosion of the vessel; in both these cases the artery being invaded on one side only, the other being still in connexion with living tissue. When a vessel was surrounded by pneumonic consolidations it was more likely to become obliterated. Dr. Powell referred to a paper by Dr. Rasmussen, in which eight cases of fatal hæmoptysis were related—four from sacculated aneurisms, and four from dilatations of pulmonary branches.

Dr. T. WILLIAMS asked what was the state of the vessels. He had seen them sometimes dilated, and thin-walled—sometimes almost calcareous. Was there any change in the vessels in early consolidation?

Dr. BASTIAN thought it was not difficult to account for fibroid change in the coats of the vessels. In the brain this was generally the case. With an old cavity and chronic induration, he could understand the vessels partaking of the change, and dilating or giving way where there was no support.

Dr. MOXON had failed entirely in discovering the source of hæmorrhage in two suddenly fatal cases. One was a girl who died in five minutes; yet he could find consolidation merely. It was a matter of surprise that Dr. Powell's cases should be of the kind they were, as in such chronic cases it was usual for the vessels to contract. He would rather expect to find such change in rapidly fatal cases.

In reply to Mr. Arnott, Dr. MOXON said he had pursued his search for the source of the hæmorrhage systematically till the lung was reduced to exceedingly small pieces.

Mr. DAVY exhibited two Hip-joints from patients of Mr. Holt and Mr. Holthouse—the one was an example of the destructive form of the disease, with general erosion and abscess in the pelvis; the other, of bony anchylosis, the result of a fractured neck of thigh-bone, taking place long ago, and ending in a stiff joint.

Mr. DAVY also exhibited the Ruptured Stomach of a Dog which had been run over in the streets. There was no external injury, yet the stomach was traversed by a large rent.

Mr. ARNOTT had no idea these cases were rare or he would have brought some before the Society. In one case a little boy fell from a ladder; there was no external mark, yet there was a large rupture of the stomach. While at University College Hospital a man came complaining of colicky pains, and it turned out that he had already been supplied with diarrhœa medicine; but while there he was taken very ill and speedily died. It was found out that the day before he had had a fall and hurt his side, but he walked home and partook of a meal as well as of the physic, yet there was a large rent in the wall of his stomach, and its contents were lying in the peritoneal cavity.

Dr. MURCHISON had seen as many as three in one day, the result of a railway accident, the passengers' stomachs being full.

Mr. HULKE had seen a case where the stomach formed part of the contents of an umbilical hernia, and in forcible attempts at reduction a rent four or five inches long was made in its wall.

Dr. MOXON had seen the stomach of a boy run over by a carriage, where the vertebral column seemed to have cut the stomach like a knife.

Mr. ARNOTT alluded to another case of a young man playing at football who had received a blow from an elbow; death followed on the second day. There was a large opening in the jejunum.

Dr. WHIPHAM exhibited a specimen of Diseased Tricuspid Valves, the left side being healthy. The patient, a male, had symptoms of pneumonia, and had suffered from hæmoptysis. He gradually sank, when it was found that the right lung in its lower lobe was hepatised, and that the pleura had given way. All the valves of the heart were healthy, except the tricuspid, which was ulcerated, and some of its chordæ tendineæ were broken across. There was no apparent cause for this, and no pyæmia. Dr. Anstie had recorded a case where there was pus under the aorta valves, which seemed to resemble this.

Dr. KELLY showed specimens:—1. Of Malformed Heart in a case of Cyanosis. The heart was taken from a child, aged three months, admitted into King's College Hospital under Dr. Priestly. There was a transposition of the great vessels, so that the pulmonary artery arose from the left ventricle and the aorta from the right ventricle. The only communication between the systemic and pulmonary systems was through the patent foramen ovale; the ductus arteriosus was closed. There was no other malformation to be noticed in any other organ. The child was not cyanotic until five weeks after birth; it then became rather livid, and every morning had slight convulsive attacks, probably brought on by impure blood passing through the nervous centres. During life a loud systolic bruit could be heard nearly all over the thorax, but most distinctly at the apex. Another child in the same family had previously died of a similar affection.

2. Malformed Heart. The specimen was taken from a child, aged 6 years, who died in King's College Hospital of renal dropsy after scarlet fever. There were no symptoms of heart disease during life, with the exception of a systolic bruit being

heard between the base and apex of the heart. After death the septum between the ventricles was found defective above, so that there was an oval communication between the right auricle and the two ventricles. The adjacent portions of the tricuspid and mitral valves were intimately adherent.

3. Necrosis of Patella. The patella was taken from a girl, aged 7 years, under the care of Mr. Wood. She ran a dirty fork into her left forefinger last August, and shortly afterwards symptoms of pyæmia came on; there was shivering, and a fluctuating range of temperature, and swelling of the left knee-joint, which was also very painful. The joint was opened and some pus escaped. In a few weeks it was again opened, and a good deal of pus came away. The girl then began to improve in health, and one morning last October, when the wound was being dressed, the patella was found lying loose, and removed by forceps. The bone was of a yellow colour, and somewhat destroyed on its lower and posterior aspect. It weighed, when dry, 1·485 grammes. The finger at this time was nearly healed. Both wounds had been treated with carbolic acid, according to Mr. Wood's method. The child soon made an excellent recovery, and left the Hospital in November.

Mr. Wood said the case was really one of pyæmia. An abscess had formed over the metacarpal bone and destroyed that. It was let out, but a swelling of the knee-joint followed, and an opening had to be made to allow the matter to escape; another had also been required after a time. He had used McDougall's powder as a disinfectant.

In reply to Mr. Hulke, it was stated to be too early to look for repair.

Dr. Payne exhibited a specimen of Cancer of the Thyroid in an elderly lady who had suffered for years from goître. Latterly she had bronchitis, dyspnœa, and loss of voice, supposed to be due to a thoracic tumour. After death, it was found that the left lobe of the thyroid had pressed on the recurrent laryngeal, and was converted into a thick-walled cavity containing creamy material like medullary cancer, also isolated nodules containing multiple nucleated cells. The mass really consisted of two structures—that of ordinary goître and cancer.

Mr. Arnott exhibited a specimen of Recurrent Myxoma from the gluteal region. The patient was a middle-aged woman, and a similar tumour had been removed twelve months before. It apparently sprang from the periosteum, and was soft, lobulated, and jelly-like. On microscopical examination, it looked a spindle-celled sarcoma; but, by a higher power, it seemed a network of double contoured fibres, the meshes being filled with nuclei.—Referred, along with Dr. Payne's specimen, to the Morbid Growth Committee.

Dr. J. D. Hill exhibited a Tumour that day removed from the scapula having been attached to its under surface and costa. It pressed on the vessels and nerves, and was of rapid growth. It had not been examined.

OBITUARY.

J. LUMLEY EARLE, M.D., M.R.C.S., Etc.

It is our painful duty to record the untimely death of Dr. Earle, of Birmingham, which took place on the 23rd inst., after a short illness. Dr. Earle was one of the candidates for the office of Surgeon-Accoucheur to the Queen's Hospital, but was compelled to retire from the candidature in consequence of an attack of illness, pronounced to be, by his Medical attendants, of a serious nature—unhappily proved to be too true, for Dr. Earle lingered only three weeks from the time when he was first taken ill. Dr. Earle was one of the Honorary Surgeons to the Children's Hospital, and had held several public appointments, always showing a preference for those of an obstetric character. He was Obstetric Surgeon to the Queen's Hospital for some time, and his connexion with this Institution was severed only when the department was closed. Dr. Earle devoted himself principally and *con amore* to midwifery, in which he was highly proficient. His predilection for this branch of the Profession is testified to by the numerous instruments he has invented, or improved and perfected, and by the several papers on obstetric subjects contributed from time to time to the Medical journals. His *brochure* was his treatise on "Post-partum Hæmorrhage," a work which has been reviewed favourably by the Medical press. Dr. Earle was a successful and skilful Practitioner—popular with his patients and *confrères*, and universally respected. Had he lived, from what we personally knew of his acquirements, we may predict he would have achieved for himself, as an obstetrician, fame and a *name*.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 24, 1870:—

Atkinson, Walter Mark, Cheshunt, Herts.
Gray, Clement Frederick, Newmarket.
Pugh, Edgar Joseph, Waltham Abbey.
Simon, Arthur Charles, St. Helier's, Jersey.

The following gentlemen also on the same day passed their First Professional Examination:—

Baldock, Alfred, St. Bartholomew's Hospital.
Bethell, Alfred, King's College.
Pilkinton, Henry Oldfield, Manchester.
Sealy, George James, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Carter, William, M.B., B.Sc., LL.B. Univ. Lond., F.R.C.S.I.—Honorary Physician to the Southern Hospital, Liverpool.

Caton, Richard, M.D.—Lecturer on Comparative Anatomy and Zoology at the Liverpool Royal Infirmary School of Medicine.

De Zouche, J., M.D.—Curator of the Museum of the Liverpool Royal Infirmary School of Medicine.

Dunkley, William W., of the Liverpool Royal Infirmary.—Assistant to the House-Surgeon at the Stockport Infirmary.

Horsley, Henry, Esq., M.R.C.S.—Surgeon to the Croydon General Hospital.

Topham, John, M.D. Lond., M.R.C.P.L.—Honorary Physician to the Torbay Infirmary, Torquay.

MILITARY APPOINTMENTS.

Royal Regiment of Artillery.—Staff Assistant-Surgeon Willam Taylor, M.D., to be Assistant-Surgeon, *vice* Samuel Pratt Woodfull, promoted.

44th Foot.—Surgeon Daniel Macqueen, M.D., having completed twenty years' full-pay service, to be Surgeon-Major, under the provisions of the Royal Warrant of April 1, 1867.

90th Foot.—Staff Assistant-Surgeon Thomas Seward, M.D., to be Assistant-Surgeon, *vice* Alexander Thomson, M.D., who exchanges.

Medical Department.—Staff Surgeon-Major George Cunningham Meikleham, M.D., to be Deputy Inspector-General of Hospitals, *vice* William Home, M.D., who retires upon half-pay; Assistant-Surgeon Samuel Pratt Woodfull, from Royal Artillery, to be Staff Surgeon, *vice* Staff Surgeon-Major George Cunningham Meikleham, M.D., promoted; Assistant-Surgeon Alexander Thomson, M.D., from 90th Foot, to be Staff Assistant-Surgeon, *vice* Thomas Seward, M.D., who exchanges.

BIRTHS.

Ashley.—On November 24, the wife of Dr. Ashley, 28, Ladbroke-square, Kensington-park, W., of a daughter.

Blake.—On November 21, at Hustbourne Tarrant, Hants, the wife of T. W. Blake, M.R.C.S., of a daughter.

Buans.—On November 25, at 286, London-road, Glasgow, the wife of Wm. McGregor Burns, L.R.C.P.E., M.R.C.S.E., of a son.

Elliott.—On November 27, at Manor-road, Forest-hill, the wife of John W. Elliott, M.R.C.S.E., of a son.

Parker.—On November 18, at the Vicarage, Abbotsbury, Dorset, the wife of Theophilus Parker, M.D., of a daughter.

Roberts.—On November 21, at Plas Eryr, Caernarvon, the wife of G. W. Roberts, M.R.C.S., of a daughter.

MARRIAGES.

Dalton—Mellor.—On November 26, at St. George's Church, Llandudno, Thomas Dalton, M.D., to Fanny, daughter of C. S. Mellor, Esq., Bryn Conway, Llandudno.

Edwards—Newman.—On November 22, at the parish church, Brighton, Edward Noble Edwards, Surgeon, of 51, Buckingham-road, Brighton, to Leonora Godslave Harding, sixth daughter of the late Richard Harding Newman, of Helmes, Hornchurch, Essex.

James—Annandale.—On November 18, at the United Presbyterian Church, Carlisle, David James, M.D., Dunbar, to Annie, third daughter of Thomas Annandale, Esq., Wetheral Plain, Carlisle.

Nicholson—Brown.—On November 26, at St. Saviour's Church, Herne-hill-road, John Markham Nicholson, second son of John Nicholson, M.D., of New Brighton, Cheshire, to Harriet, second surviving daughter of the late William Gregory Brown, Esq., of Ludgate-hill and Peckham.

Tatam—Waller.—On November 24, at All Souls', Langham-place, Edward John, younger son of Henry Hardy Tatam, Esq., of Moulton, Lincolnshire, to Marion, younger daughter of the late Francis Henry Waller, M.R.C.S. Lond., of Broadway, Worcestershire.

DEATHS.

Andrews, John, Surgeon, eldest son of the late William Andrews, Esq., of Salisbury, in the Close, Salisbury, on November 25, aged 64.

Bowers, Robert Arnold, Surgeon, at his residence, Romford, S.E., on November 27, aged 72.

Chambers, F. Evans, M.R.C.S.E., of 49, Upper Gloucester-place, on November 28, aged 36.

Lano, William, Surgeon, rt 6, South-parade, Clifton, Bristol, on November 26, in his 62nd year.

McRae, Louisa Sophia, relict of the late John McRae, M.D., Surgeon R.N., at 45, Stock Orchard-crescent, Holloway, on November 24, in the 79th year of her age.

Merriman, Caroline, wife of John Merriman, Esq., Surgeon (retired), of Bridgeman House, Teddington, at Bournemouth, on November 24, in her 71st year.

Price, Catharine, widow of William Price, F.R.C.S.E., at St. Paul's-street, Leeds, on November 28.

Roper, George Trevor, M.D., of Rock Ferry, Cheshire, youngest son of the late Cadwallader Blaney Trevor Roper, Esq., of Plas-Teg, Flintshire, on November 14.

Seodall, John Vernon, M.D., Surgeon 86th Regt., at Cape Town, South Africa, on October 8.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Evelina Hospital, Southwark-bridge-road, S.E.—House-Surgeon; must be properly qualified. Applications and testimonials to the Committee of Management.

Evesham Union.—Medical Officer for the Third District; candidates must be duly qualified and registered. Applications and testimonials to John W. Adams, Esq., Clerk, on or before December 12.

Faringdon Dispensary, Bartlett's-buildings.—Resident Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. S. Green, Hon. Sec., 10, St. Swithin's-lane, London, on or before December 3, 1870.

Guisborough Union.—Medical Officer for the Danby District; candidates must be duly qualified and registered. Applications and testimonials to Wm. Weatherill, Esq., Clerk, on or before December 13. Election the same day.

Hackney Union.—Dispenser; must thoroughly understand his duties, and produce unexceptionable testimonials. Applications to Mr. John Godwin, Clerk to the Guardians, on or before December 14.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-Street, W.—Visiting Physician; must be M.R.C.P.L. Applications and testimonials to the Secretary, on or before December 7.

Lincolnshire County Asylum.—Assistant Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Dr. Palmer, at the Asylum, Bracebridge, Lincoln, on or before December 3. The duties will commence on the 17th.

Manchester Clinical Hospital and Dispensary for Children, Park-place, Cheetham-hill-road, Manchester.—House-Surgeon. Applications and testimonials to the Chairman of the Medical Board on or before December 3.

Manchester Royal Infirmary.—Senior House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Weekly Board on or before December 10.

Metropolitan Free Hospital.—Honorary Surgeon; must be F.R.C.S. Eng., or pledged to become such within twelve months, if elected. Applications and testimonials to the Committee of Management on or before December 15.

Southport Infirmary and Local Dispensary.—Resident House-Surgeon. Must be duly qualified and registered. Applications and testimonials to be sent in on or before December 6, endorsed, "Application for House-Surgeon."

Stamford, Rutland, and General Infirmary.—House-Surgeon, Apothecary, and Secretary; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Chairman of the Committee of Management on or before December 31.

Western General Dispensary.—Resident Dispenser and Assistant; must be fully competent for the office. Applications and testimonials to the Secretary on or before December 9.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Hartley Wintney Union.—Mr. J. J. Gillam has resigned the Crondall District; area 8732; population 2436; salary £80 per annum.

Medway Union.—The Second District is vacant; salary £65 per annum. Also the Workhouse; salary £80 per annum.

Poplar Union.—The West District is vacant; population 26,168; salary £150 per annum. No fees.

APPOINTMENTS.

Caernarvon Union.—Owen E. Owen, L.R.C.P. Edin., L.F.P. and S. Glas., to the Llanidan District.

Erpingham Union.—Frederic A. Helsdon, M.R.C.S. Eng., to the North Walsham District.

Mitford and Launditch Union.—Thomas L. Lack, M.R.C.S. Eng., L.S.A., to the Hardingham District.

Neath Union.—John Davies, M.D., M.B., and M.C. Glas., to the Llangonoyd District.

St. Saviour's Union.—Robert A. Bolt, M.R.C.S.E., L.S.A., to the Third District. Thomas Evans, M.R.C.S.E., L.S.A., to the Sixth District.

The Royal Society.—At the annual election, on the 30th ult. (St. Andrew's-day), the gentlemen, a list of whom appeared in the *Medical Times and Gazette*, of November 26, were duly elected to their respective offices. On the same occasion the following award of medals was made, viz.:—The Copley Medal to Mr. James Prescott Joule, F.R.S., for his experimental researches on the dynamical theory of heat; a Royal Medal to Professor William Hallowes Miller, Foreign Secretary to the Royal Society, for his researches and writings on mineralogy and crystallography, and his scientific labours on the restoration in the national standard of weight; a Royal Medal to Mr. Thomas Davidson, F.R.S., for his work on the recent and fossil brachiopoda, more especially his series of monographs in the publication of the Palæontographical Society; the Rumford Medal to M. Alfred Olivier des Cloizeaux, for his researches in mineralogical optics.

In our list of Medical Mayors we omitted to mention one—viz., Mr. Kirk, M.R.C.S.L. and L.S.A., as Mayor of Hedon.

Professor Lister, Surgeon-Extraordinary to her Majesty, has bought High Cliff House, Lyme Regis, the residence of Mr. J. W. Treeby, ex-M.P. for Weymouth.

Dublin Obstetrical Society.—The thirty-third annual session was opened on the evening of Saturday, the 26th ult., with an address from the President, Dr. George Johnston, Master of the Rotunda Hospital. The meeting was held at the College of Physicians, and was largely attended by members and visitors. The following were elected as officers for the ensuing year:—*President:* G. H. Kidd. *Vice-Presidents:* J. A. Byrne, Henry Kennedy. *Treasurer:* H. Halahan. *Secretary:* L. Atthill. *Committee:* T. E. Beatty, F. Churchill, J. Denham, A. H. M'Clintock, Wm. Roe. A vote of thanks to the ex-President having been proposed and seconded, the Society adjourned.

Quekett Microscopical Club.—A paper on a new form of Polarising Selenite Film was read before the members on Friday evening last, by Mr. W. Ackland, L.S.A., and was followed by a practical demonstration by the President, Professor Lionel S. Beale, wherein he showed the method adopted for injecting the vessels of small animals for the purpose of microscopical investigation. There was an unusually large attendance of members, who closely watched the President while he carried them through the whole process, illustrating his subject by the exhibition of the instruments and fluids employed, and by diagrams of the formulæ of the preparations required. It need not be said that such a demonstration was warmly appreciated in such an eminently practical body as the Quekett Microscopical Club. Nine new members were elected, four of whom were members of the Medical Profession, and the meeting then terminated in the usual *conversazione*.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Parish Surgeon.—We would refer our correspondent to Dr. Barnes's work "On Operative Midwifery."

Miles.—The National Society for Relief to the Sick and Wounded was an expression of English benevolence, subjected to the mishaps of a voluntary and *impromptu* association, and when it has done its work had better be dissolved.

A Constant Reader.—The subject of the Astley Cooper Prize is the "Anatomy and Physiology of the Lymphatic System." Essays to be addressed to "the Physicians and Surgeons of Guy's Hospital" before January 1, 1871.

A Pharmaceutical Chemist.—If a Medical Practitioner chooses to write prescriptions that cannot be understood and properly dispensed by a qualified druggist, he is to a certain extent answerable for any results that may arise therefrom. When a Medical Practitioner, under such circumstances, objects to any comments that a respectable journal, in the interests of the public, may think right to make upon his conduct, he shows his ignorance of the law. The press is for the protection and safety of the public, and would fail in its duty if it did not fairly comment upon transactions which, to say the least of them, are "irregular."

E.C.—As to wintering abroad, it is understood that the Archbishop of Canterbury engaged the services of Mr. Cook, the excursionist, to conduct him to his journey's end at Naples, arrange the railway journeys, to select the hotels, pay the bills, and provide against detention on the railway. It might be impossible to avoid stopping one or more days in a hotel, but before starting care was to be taken that the line was clear for the day's route. It is said that Mr. Cook is to receive £500 for the task.

Plymouth.—We are fully acquainted with the strong and persevering efforts which are being made by a certain party to ignore and defeat the wholesome clauses of the Contagious Diseases Act. As far as the Profession is concerned, we have no hesitation in stating that those efforts will not be successful.

Lector.—There is no ground for the imputation: the gentleman mentioned is a most respectable member of the Profession.

N.—The preparation is a secret remedy, and cannot safely be prescribed.

R. P.—It has been decided by the Council of the Pharmaceutical Society that such a diploma will not be received.

Peterfamilias.—Such circulars are highly offensive, both to morality and truth. Our correspondent should place the facts before a magistrate of the police-court nearest to his residence.

Cairo.—We get good reports of the new hotel at Cairo. A private letter says—

"The hotel is very large. The rooms lofty and beautifully clean, and the food good. There is an excellent breakfast, and an equally good lunch, and the cooking is good. I, indeed, have nothing left to wish for. The servants are all well-dressed Frenchmen, and most attentive. The waterclosets are beautifully built and walled with white tiles. The bath-rooms are excellent, and if you will come to us I think I can promise you a nice corner on a southern verandah, where you may be baked in the sun while gazing on the distant pyramids and desert. The town is well lighted with gas. There is a splendid opera, a theatre, and a circus for those who care for such amusements. For the direction of any visitors, I would say, on reaching Alexandria, dragomen [or, properly speaking, drogmans] will come on board the steamer—engage one, to whom say, 'Procure me a boat, for which I will pay 1s. 6d., and 3d. each for the carriage of each trunk from the boat (which is to land you at the Custom-house) to the omnibus or carriage standing outside the Customs.' If you decide on going to the P. and O. Hotel at Alexandria, you have only to ask for their omnibus, which will take you, free of charge, with your luggage; if you prefer a carriage you will pay 1s. 6d. for it, and then your dragoman you must pay 2s. 6d. when he has delivered you safe at the hotel from the hands of the Philistines. I may tell you that you must pay no attention to the demands of the crowd of Arabs, and refuse to pay anyone; your contract is with the dragoman, and having told him your terms, you pay him in bulk at the end of the affair.

"The P. and O. is a very comfortable hotel, and you will always be obliged, as a rule, to stay a night at Alexandria, since the steamers rarely arrive in time for the trains. Trains leave for Cairo at 8 a.m. and 2 p.m.—the first being the quick train. Order breakfast in your room at 7, and leave in a carriage, which you will be able to secure at the door, by 7.15. Always secure *one* Arab for the execution of your wishes (and you will find one speaking English if you look round), and tell him that you will pay him, and him *only*; any one who assists him he must settle with. For carrying six trunks from the hotel passage and putting them into the carriage, 6d. gave satisfaction; the same for taking them out at the station, placing them on the counter, from which they are taken, weighed, and removed to the train. Secure your tickets (first-class 21s.), and on handing them up at the counter they will give you the bill for your luggage (all of which is charged for that you do not take in the carriage with you). On the bill is the number which is pasted on you boxes, and you will not receive your parcels without producing it at Cairo; there you arrive pretty punctually at 12.30 (by the early train). Call out 'New Hotel,' and eventually, from the herd, a man will produce the card of the hotel; ask, 'Is he one of our dragomen;' if he says 'Yes,' tell him to get you a carriage, and give him the ticket for your luggage. You drive here at once, and he will bring your luggage all right. I may add that a good stick perpetually extended may keep off the herd, but if you cry '*Impshee*' (get away), and keep your purse out of sight, it will greatly add to the comfort of your passage. When the Arabs think you are made of money, which they will get if they can only knock you to pieces, they will; but I managed charmingly, and it is surprising to see how quickly they will fly if you are only sharp and determined with them; but the more money you give the more urgent becomes the demand, and the crowd rapidly increases. My invalid is delighted, and feels already a new creature. The walls of the house are very thick, and you have good glass doors and windows to your rooms, besides the venetian shutters. The roads here are very good, and the place is well wooded, and looks bright and green.

"A telegram from Malta to Mrs. Appleton, at the New Hotel, Cairo, will enable her to meet or send a dragoman for any party, who wish to be saved all anxiety and trouble about their transit. I travelled most comfortably by the *Memphis*, one of Messrs. James Moss's steamers (Tower-buildings, Liverpool), for which I paid £16 16s. Visitors coming out should telegraph to their office for places, as they fill so rapidly. The weather, I may add, is like lovely English June."

Oxford as a School for Medical Men.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—There has been a great deal said and written lately about the advantages held out by Oxford to men purposing to enter the Medical Profession. To speak frankly, these articles have appeared to me to emanate from persons who had never been near Oxford, and knew very little about the matter. Would you permit me to add a few words to what has already been said, though in a short letter it is most difficult to deal with such a subject properly.

I am not disposed to undervalue the advantage of spending three or four years at one of the best colleges here, such as Balliol, Corpus, or Lincoln, and taking the B.A., and then going to one of the London schools and passing four or five years in the study of Medicine; but the time and money needed render such a course impossible to all except a few wealthy men, who purpose keeping to a very select practice; but I am disposed to think that two or three years directed to science at University or King's, during which time a man could take the London B.Sc., would be a far better preparation for the Medical course than the Oxford studies.

Oxford is not a cheap place, and contains too many wealthy, idle men, who are likely to lead a young man into extravagant habits; and the tone of Oxford society is not a good one for Medical students. Not only is Medicine little respected, but the absurd views and the idle, luxurious lives of many of his fellow students would ill prepare any man for the comparatively humble position, ceaseless drudgery, and disagreeable work which fall to the lot of nineteen out of every twenty Doctors. At Oxford there are many commoners, and even some few of the scholars, who came with the intention of eventually taking to Medicine; almost without an exception they have found it more profitable to give up their earlier plans, and turn their thoughts to the church, literature, tutoring, or the bar.

There is really no Medical school at Oxford, and the science department is hardly in the good working order or so well adapted for Medical students as the same department at University College. Again, the courses of lectures here are very short, and very unlike the systematic and exhaustive courses delivered by Professors Williamson, Sharpey, Ellis, and Burdon Sanderson.

The scholars *non ascripti* are still very few. As yet, for obvious reasons, they are not overloaded with prestige, and they enjoy hardly one of the advantages, whether valuable or not, which fall to the lot of the College men. They can live cheaply, it is true, but surely not for the £50 mentioned. If, as usual, they are backward in their work, they need a great deal of private tutoring, the cost of which is very heavy. Perhaps £80 a year would be nearer the mark for maintenance, books, and tutors. As far as I see, Edinburgh is a better place for these men, unless, as usually happens, they are designed for the church.

It has of late been the custom to laugh at our examinations; now, though the Oxford "pass" examinations are not hard, they offer insuperable difficulties to persons who have not had a very good classical training. After entering, there are "responsions" almost wholly classical; then "moderations," demanding a still better knowledge of classics; candidates are expected to know all their works thoroughly; having passed the latter, but not till then, a man can take to one branch, and give his whole attention, if he will, to science. It shows great ignorance to despise the two examinations I have named, for, few though the subjects, perfection and accuracy go for everything; they are easily passed by clever lads from the great public schools, but few of the Medical students of my acquaintance could have passed under three or four years' close study.

Lastly, as to the prizes held out by Oxford. Not a few of the scholarships are attached to certain schools, and are given to picked men from those schools; of the remainder, very few are science scholarships, nearly all being classical ones, and for these the competition is tremendous; few men can count on getting them, and certainly not unless they have given their full attention to the special subjects. Two of the recently elected scholars of Lincoln are London B.A.'s in high honours, and two of the new Balliol scholars are First B.A.'s London in high honours, one being an exhibitioner in Latin. Nor is all this surprising, for would a scholarship confer the prestige it does through life, and be a great distinction, if not very difficult to obtain? As to the fellowships, perhaps one B.A. in twelve or fifteen gets one; most of the Fellows have been very high in honours, and most of the fellowships are classical ones; the All Soul's Fellowships are for Law and Modern History; but after having gained one of the latter, would any man in his senses take to a new course of studies, and begin afresh at Medicine?

These few disjointed observations will show that, for the present, at least, Oxford is not the best place for the disciples of Physic.

No. 23, 1870. An Oxford Man.

On Medical Charges.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In submitting the following system of charges to the notice of your readers, I should premise that it is specially adapted for the general Practitioner in the country, and, for all practical purposes, patients in country practice may be thus classified:—

I. The nobility and gentry.

II. The ordinary well-to-do farmer.

III. This class includes small occupiers of land, little country shopkeepers, village tailors, shoemakers, etc.

IV. The labouring class—not paupers.

To dispose of the last class (IV.) first. The labourer earning from 10s. to 15s. a week only cannot, of course, afford to pay a regular Doctor's bill, nor even a small charge for each bottle of medicine; therefore the only equitable method of charging the able-bodied working man must be based upon the club system, and should be done by the parish Doctor, who, by the way, is the only man that can afford to do it. The writer happens to be one of those unfortunates, and accordingly has a "sick list" for each of his parishes. Terms as follows:—

Labourers (not already in clubs)	4s.	a year each.
Wives "	" 4s.	"
Children (not in service)	1s.	"

Prepayment for the year is required.

Before considering the other classes of patients, it may be as well to discuss in detail the three separate items referred to in a previous letter, viz.—1. Medicines supplied. 2. Visits. 3. Mileage.

1. *Medicines Supplied.*

Mixtures for adults,	℥vj. (6 doses)	1s. 0d.
"	" ℥viij. (8 doses)...	1s. 6d.
"	" ℥xij. (12 doses)	2s. 0d.
"	" ℥xvj. (16 doses)	2s. 6d.
"	children up to ℥vj.	1s. 0d.

Gargles and lotions of similar size would be similarly priced.

Pills	from 1 to 6	0s. 6d.
"	12	1s. 0d.
Powders	from 1 to 3	0s. 6d.
"	6	1s. 0d.
Draughts	each	0s. 6d.

Blisters and plasters, 6d. to 1s., or more, according to size.

Ointments to ℥i., 6d.; ℥ij., 1s.

Although it may sound paradoxical, in a certain sense this is the basis of the system; for the prices of medicines should be the same for all classes of private patients. They should be much what the patient would pay at an ordinary druggist's—for the Doctor, be it remembered, is his own druggist. The difference between the fees due from each class should be shown in the item "visit." The poorest in class III. can only afford to pay for the medicine with which they are supplied, according to the above scale. I give them the attendance and advice gratis, and this should always be explained to them.

2. *Visits.*

Class I.	3s. 6d. to 5s., or more.
" II.	2s. 6d.
" III.	From nothing to 1s. 6d. Servants 1s.

Under this heading the fees are most arbitrary, and I have merely indicated the amount that patients in this neighbourhood are willing to pay.

3. *Mileage.*

Journeys from 1 to 2 miles		2s. 6d.
"	2 to 3 "	3s. 6d.
"	3 to 4 "	4s. 6d. and so on.

This item of mileage, of course, is only applicable to Classes 1 and 2, and should be the same for both. The time consumed in going to a nobleman is no more than that spent in going to a farmer, and it simplifies matters to make the difference in the fee evident in the charge per visit. Special visits, night work, consultations, midwifery, accidents, etc., should be charged upon the principles enunciated in the well-known Manchester tariff. To make the matter clearer, let us take as a practical illustration a case of supposed illness in the typical farmer class (II.). The patient shall live, say, three miles off; the nature of his case requires, in the way of medicine, a dose of mixture every four hours, and he needs seeing again on the fol-

lowing day. The items will be as follows:—1. Mixture ℥ij. (1s.) 2. Visit (2s. 6d.). 3. Mileage (3s. 6d.). Total 7s.

In bringing these remarks to a conclusion, allow me to thank you, Sir, for your courtesy in permitting me so much space in your valuable columns. Whether the view I have taken be correct or no, I trust the subject will not be allowed to drop, and I look forward with pleasure to the "summing up" you announced last week. I am, &c.

A Constant Reader and Subscriber.

COMMUNICATIONS have been received from—

Dr. Parkes; Dr. J. R. Roberts; Mr. Thomas Moore; Dr. Sedgwick; Dr. John Barclay; Dr. Burns; Dr. E. Perceval Wright; Mr. H. Horsley; Mr. T. C. White; A Parisu Surgeon; A Constant Reader and Subscriber; Dr. E. Long Fox; Dr. J. Cautley; Dr. R. Caton; Mr. J. R. Leeson; Dr. A. Fleming; F.R.C.S.E.; Dr. Topham; A Constant Reader; Mr. Charles Williams; Dr. A. Mackintosh; Mr. H. Arnott; Dr. James Russell; Mr. Morgan; Mr. J. Chatto; Dr. Lionel S. Beale; Dr. William Carter; Mr. T. Buzzard.

BOOKS RECEIVED—

A Book about Shams relating to the Great French Revolution, by Dr. Lory Marsh—Seehohm on Compulsory Education—Odd Showers, by Carribber—Barewell on Lateral Curvature of the Spine—Fourteenth Annual Report of the Medical Officer of Health, made to the Vestry of St. James's, Westminster, June, 1870—Notes on the Sanitary State of Stamford, by William Newman—Fourth Report of the Sydenham District Medical Society—John Dougall, M.B., on Bromal Hydrate—Science Gossip, No. 72—Edinburgh Medical Journal, November—Practitioner, November.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Birmingham Daily Post—Saunders's News Letter—The Scotsman—The Edinburgh Evening Courant—Medical Press and Circular—Musical Times—The Scotsman—New York Medical Gazette.

APPOINTMENTS FOR THE WEEK.

December 3. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

St. Andrews Medical Graduates' Association, 5 p.m. Dr. Richardson, F.R.S. (President), "For the Future of Physic" (Anniversary Address).

5. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

Medical Society of London. 8 p.m.: Casual Communications. 8½ p.m.: Dr. John Brunton, M.A., "On Prolapse of the Funis Umbilicalis, and its Treatment by the Postural Method."

Royal Institution, 2 p.m. General Monthly Meeting.

6. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Anthropological Society, 8 p.m. Mr. A. L. Lewis, "On the Races inhabiting the British Isles," and "On Archaic Structures of Cornwall and Devon." Sinclair Holden, M.D., "On Forms of Ancient Interment in Antrim."

Pathological Society, 8 p.m. Dr. Liebreich, "Ophthalmic Illustrations of Diseases of the Eye." Mr. Foster (for Mr. Thompson, of Nottingham), "Tumour Removed from the Breast." Mr. H. Arnott, "Secondary Epithelioma of the Heart and Lungs." Dr. Dickinson, "Cystic Sarcoma of Lumbar Glands." Mr. Trotter, "Malignant Disease of the Kidneys." Mr. C. Heath, "Fibrous Tumour from the Axilla; Procidentia Uteri, with Ovarian Cyst; Lipoma of the Nose." Mr. Squire, "Enlarged Spleen." Dr. Tilbury Fox, "Keloid Tumour from the Ear"—the Illustrations contributed by the Editor of the *New American Photographic Review*.

12, Hinde-street, W., 5 p.m. Lectures on Experimental and Practical Medicine, by Dr. B. W. Richardson, F.R.S.

7. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

Obstetrical Society. 7 p.m.: Council Meeting. 8 p.m.: Mr. J. T. Mitchell, "Case of Hydrocephalic Head necessitating Craniotomy." Mr. Cullingworth (Manchester), "Case of Pelvic Cellulitis, noted with special reference to the Temperature." Dr. Wiltshire, "Fibro-enchondromatous Tumour complicating Pregnancy; Safe Delivery." Concluding Report of the Infant Mortality Committee; and other Papers.

Society of Arts, 8 p.m. Meeting.

8. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

9. *Friday*.

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Clinical Society, 8½ p.m. Sir Henry Thompson, "Operations for the Restoration of a Large Portion of the Male Urethra lost by Sloughing." Mr. T. Smith, "On the Nature of the so-called Congenital Tumour of the Sterno-mastoid." Dr. Handfield Jones, "A Query as to the Safety of Subcutaneous Injections." Report upon Mr. T. Smith's Case of Ulcer following Vaccination. Dr. Silver, "On the Use of Veratrum Viride in Acute Rheumatism." Mr. Teevan, "Four Cases of Operation for unusually Large Calculi."

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 26, 1870.

BIRTHS.

Births of Boys, 1081; Girls, 1057; Total, 2138.
Average of 10 corresponding weeks, 1860-69, 2062·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	860	792	1652
Average of the ten years 1860-69	753·2	738·5	1491·7
Average corrected to increased population	...	...	1641
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	2	9	14	...	1	...	7	1	4
North ...	618210	12	6	46	...	6	...	9	1	3
Central ...	383321	...	...	13	...	1	1	1	1	1
East	571158	23	5	14	1	10	3	6	...	3
South	773175	4	4	35	4	8	2	5	7	7
Total	2803989	41	24	122	5	26	6	28	10	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·295 in.
Mean temperature	46·8°
Highest point of thermometer	58·9°
Lowest point of thermometer	36·9°
Mean dew-point temperature	43·2°
General direction of wind	S.W. & S.S.W.
Whole amount of rain in the week	0·95 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 26, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Nov. 26.	Deaths Registered during the week ending Nov. 26.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2138	1652	58·9	36·9	46·8	8·22	0·95	2·42
Portsmouth ...	122084	12·8	65	41	57·2	32·4	46·4	8·00	0·86	2·18
Norwich	81087	10·9	59	62	...	...	...	...	...	...
Bristol	171382	36·6	107	102	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	51	23	55·0	32·4	44·1	6·73	1·38	3·50
Birmingham ...	369604	47·2	241	156	56·2	33·1	44·8	7·11	1·62	4·11
Leicester	97427	30·4	72	66	56·0	1·5	43·3	6·28	0·82	2·08
Nottingham ...	88888	44·5	45	45	55·9	31·2	42·3	5·73	1·26	3·20
Liverpool	517567	101·3	340	364	52·1	35·4	43·5	6·39	1·71	4·35
Manchester ...	374993	83·6	244	187	...	...	...	...	...	...
Salford	121580	23·5	64	64	54·5	31·1	42·7	5·95	2·00	5·08
Bradford	143197	21·7	98	84	56·1	34·2	43·5	6·39	1·75	4·45
Leeds	259527	12·0	187	153	55·0	33·0	42·7	5·95	1·49	3·99
Sheffield	247378	10·8	201	136	55·0	33·0	43·0	6·11	1·38	3·50
Hull	130869	36·7	86	63	56·0	30·0	40·8	4·88	0·65	1·65
Sunderland ...	100979	30·5	55	43	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	92	61	52·0	35·0	41·7	5·39	0·66	1·67
Edinburgh	178970	40·4	111	115	50·7	31·0	40·6	4·77	0·40	1·02
Glasgow	468189	92·5	343	271	49·5	32·1	40·1	4·50	0·86	2·18
Dublin (City, etc.*)	321540	33·0	162	194	57·2	32·0	43·0	6·11	0·46	1·17
Total of 20 Towns in United Kingd'm	7216325	33·8	4761	3882	58·9	30·0	43·1	6·17	1·14	2·89
Paris—Week ending Nov. 26	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Nov. 19 ...	622087	167	...	318	...	...	43·5	6·37	...	...
Berlin—Week ending Nov. 24 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·295 in. The highest barometrical reading was 29·81 in. at the end of the week, and the lowest was 28·97 in. on Tuesday.

The general direction of the wind was S.W. and S.S.W.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

MEDICAL CLUB.

The premises at present occupied by the Union Bank in PALL-MALL EAST and SUFFOLK-STREET have been secured, for the purpose of converting them into a Club-house, and the Medical Club will remove to them some time during the ensuing Summer. In the meanwhile it will continue to be conducted in the present house, No. 9, Spring-gardens.

New Members will be received during the present year upon paying an Entrance Fee of Eight Guineas, and the following annual subscriptions—viz., London Members, Five Guineas; Country Members, Three Guineas; Supernumerary Members (*i.e.*, whilst abroad), One Guinea. All subscriptions paid before the 1st of January next will free the Members until the 1st of January, 1872. After the first of January, 1871, the terms of admission will be raised.

Medical Club, Spring-gardens, 10th November, 1870. H. T. L. BEWLEY, Secretary.

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(Manufactured only in France.)

ANNUAL CONSUMPTION EXCEEDS 5,000,000 lb.

The healthiest, best, and most delicious Aliment for Breakfast known since 1825; defies all honest competition, unadulterated, highly nutritious, and pure.

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REDUCTION IN PRICE OF
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(*Registered.*) Price 5s. 4d. per lb.

Prepared of definite strength, and from Chloral of ascertained purity, it may always be relied upon. Each drachm contains 10 grains Chloral Hydrat. Ferris and Co.'s Syrup is the only recognised preparation. (See "Lancet," Feb. 19, 1870, and "Medical Times and Gazette," Feb. 12, 1870.)

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And through all leading Wholesale and Retail Chemists in Great Britain and the Colonies.

N.B.—3 lbs. Syrup of Chloral, or 1 lb. Nepenthe and 1½ lb. Syrup of Chloral, sent carriage paid to any railway station in the kingdom on receipt of Post-office Order for 16s.

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FOX'S
"PALATABLE" COD-LIVER OIL, "PALATABLE" CASTOR OIL, AND "PALATABLE" COD-LIVER OIL WITH QUININE
ARE THE FINEST OILS,

So prepared as to be really pleasant to the taste, whilst their medicinal properties are not in the least impaired.

From the LANCET, June 18th, 1870.

"Our attention has been called to the preparations named (by Messrs. Fox and Co., of Manchester) Palatable Cod-liver Oil and Palatable Castor Oil. We have made ourselves acquainted with the means employed to render these Oils 'palatable,' in place of being, as they are to so many persons in their natural state, nauseous and disagreeable to the palate, and calculated to derange—especially cod-liver oil—the stomach and the organs of digestion. These means are simple and unobjectionable, and they have the effect of removing certain impediments to the free and general use of these Oils, and, in the case of Cod-liver Oil, of endowing it with mildly tonic properties. The idea of rendering Cod-liver and Castor Oils palatable is an exceedingly good one, and no doubt there will be a large demand for, and consumption of, the Oils thus prepared."

From the MEDICAL TIMES AND GAZETTE, June 4th, 1870.

"In these preparations the Patentees have succeeded in making the Oils not only palatable, but easily retained upon the stomach without rising. We have tried them in several cases with marked benefit, and in some instances in which the Oil in its natural state could not be retained. The mode of preparation is such that the medicinal properties of the Oil are unimpaired. To children in particular the Oils as prepared by Fox and Co. will be highly advantageous."

From the MEDICAL PRESS AND CIRCULAR, May 4th, 1870.

"Hospital Report, North London Consumption Hospital.—Mr. George Fox, a chemist of Manchester, has recently sent some samples of Palatable Cod-liver Oil to be tried at the Hospital, stating that his preparation contains 50 per cent. of the purest Oil. This compound is very palatable indeed, and patients who could not take oil by itself or with the addition of sulphuric ether, took and retained it without any difficulty. Fox's Cod-liver Oil is well suited to patients of the better classes, with whom it will probably become very popular on account of its exceedingly pleasant taste."

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Palatable Cod-liver Oil, 1s., 2s., 3s. 9d.; with Quinine, 2s. 6d., 4s. 9d. Palatable Castor Oil, 6d., 1s.

ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital.

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

Lecture X.

THE RELATIONS OF INFLAMMATION THROUGH HYPERTROPHY TO TUMOUR, AND THROUGH ATROPHY TO DEGENERATION.

Unless we have a clear view of the nature of inflammation, and perceive that this great overgrown word has a very fast-and-loose application, we shall find ourselves in hopeless confusion when we try to understand the relation of inflammation to hypertrophy, atrophy, tumour, and tubercle.

I hope it is now clear that, in the scope of inflammation, as we commonly and practically use the word, and as we must go on using it, there are two wholly and entirely distinct, and even, I may say, incompatible branches—of which the first is a matter of function, consisting of pain, heat, redness, swelling, and such things, which are in the domain of physiology; while the second is a matter of structure, dead, and consisting in increase of the number of nucleated elements or wasting of those elements, according to the manner we have already considered—things which belong to the domain of anatomy.

There is only one way in which a word that includes such different things can be safely used, and that is by always clearly comprehending its import and contents (if I may so speak), and thus being always on your guard in its employment in questions relating to other sorts of diseased change. I have proposed to you that we should use the word inflammation to especially mean the clinical facts. We cannot do without such a word at the bedside. After death, or when the products of inflammation are under consideration, it is quite possible for us to use the word *hyperplasia* in place of inflammation, and say acute or chronic hyperplasia for a rapid or slow production of lymph in a tissue, after the manner we have already described.

While describing the behaviour of the several kinds of elements of tissue under inflammatory irritations, we have seen that they vary very much in their kinds of change. Some of them—the cellular and intercellular—increase and multiply; others—the tubular chiefly—waste away. The gland cells, also, under prolonged irritations which increase the connective elements, waste likewise, and lose their form and disappear.

We are now in a position to understand what is the relation of hypertrophy and of atrophy to inflammation, and to understand why it is that some say a given change is atrophy, while others say it is chronic inflammation; some say another change is hypertrophy, and others say it is chronic inflammation. If you cannot settle these questions, you may at least see clearly why you cannot, and what sort of questions they are.

When, in an acute pleurisy, there are pain, heat, etc., and production of lymph, which subsequently organises, then there is no doubt about the use of the word inflammation, but you see that there is hypertrophy of the fibrous tissue of the pleura in it beyond question.

When in a chronic thickening of the pleura there is production of new fibrous tissue, very similar to that which resulted from the acute pleurisy, but there is no account of pain, heat, etc., then one will call the case hypertrophy of the pleura, and another will call it chronic pleurisy.

Now, knowing that inflammation, in the simplest, and clearest, and best sense, is (1) the pain, heat, etc., in addition to formative change—*i.e.*, to hypertrophy—(2) which usually accompany this, but (3) may be absent from formative change, we see that the question between those who say hypertrophy and those who say chronic inflammation in the case, is that the latter affirm that pain, heat, etc., existed in it, but were unnoticed; the former deny this. The question is so far one of fact, capable of solution by further consideration of the history of that and the like cases. But it is one of words so far as the two views may differ about the propriety of calling such cases with practically unappreciated pain, etc., by the term inflammation, referring to the vital actions, or by the term hypertrophy, referring to the products. It is exactly as though the question should arise whether the slow oxidation of iron filings should be called combustion, that word being used for the more active production of fire with light, etc., in acute oxidation. But the physical philosophers have the advantage of us in possessing the word ignition, which properly applies to the appearance of fire, and can be used to obviate all obscurity in discourse on the phenomenal and real results of oxidation. We very much want such a word in our present difficulty.

Hypertrophy thus stands in a very clear and simple relation to inflammation, and it is not necessary for us to consider any further its nature. It is *hyperplasia without phenomena of clinical inflammation*. The process and results of it are not different *in kind* from those found when inflammation accompanies it. But as the heat, redness, etc., of inflammation are the signs and products of intensity and rapidity of the change, so the absence of these signs, which characterises hypertrophy, proves and is the expression of a slowness of action within the part. This slowness of action makes the hyperplasia a different hyperplasia from that of inflammatory hyperplasia, although not a different kind, *for we do not call things different in kind when we know the reason of their differences*. The difference of hypertrophy, with its increase of normal elements, from inflammatory hyperplasia, with its production of elements ill-formed or abnormal, is due to this very general law, that what is done in a hurry is not done well—a law which we can all appreciate without having recourse to such examples as alumina, precipitated amorphous, quickly, from its solutions, and precipitated slowly, in the beautiful forms of the ruby and sapphire; or to the infusorium formed from its ovum in six hours, while a man takes twenty-eight years to make from his very similar ovum. If I made a scale of time in development and another scale of perfection in development, I should find them vary together very closely. Development is governed by time.

This relation to time is exceedingly interesting. It brings the living and the lifeless within the same law. Hyperplasia done with heat and pain in haste brings products which are low in development. This is inflammation. But hyperplasia that is done patiently and slowly and in quiet brings products which are high in development. This is hypertrophy. The excessive number of the multiplying elements in the rapid production of profuse inflammatory action may be thought very naturally to divide up the *vis conservatrix* into too minute quantities, so that each of the degenerate offspring has too small a share of the parent cell's vigour, while in hypertrophy the few offspring have a large share of the *vis conservatrix*, and hence are better formed and preserved. Indeed, we should note, when speaking of hypertrophy, that it may consist of a mere enlargement of the existing elements without any multiplication of them. Hypertrophy is always now spoken of as being of two distinct kinds in its relation to the elemental structure. The first is what is called *simple* hypertrophy; in this the individual elements are only enlarged, not increased in number. The second is called *numerical* hypertrophy; and in this the elements are multiplied in number. The former sort will be viewed as augmented nutrition; the other passes from nutrition to reproduction, and when passing so from nutrition to reproduction begins a line of unbroken continuity, which ends in pus formation; heat and redness commencing when the rapidity and disturbance is in a certain pass of activity. On the other hand, when heat and redness accompany mere swelling of the individual cells, we should, if the change were limited to this, have a condition which we should clinically call *irritation*.

It is curious how little is positively known in individual kinds of change as to the simple or numerical character of the hypertrophy. In the case of hypertrophy of the heart, it is not even now certain whether the augmentation of the weight of the organ, from ten ounces to thirty or more, is due to the addition of new fibres or the growth of the old ones; and, before any of us think this is due to inadvertence, we must try how difficult it is to arrive at certainty. Generally it is believed—I think correctly—that both simple and numerical hypertrophy affect the heart. But the enlargement of cylinders to thrice their weight does not require so great a change in their diameter; and the heart's muscle-fibres, as you know, branch and subdivide, so as to have very different sizes in the natural state. It is important to observe that true hypertrophy—such as that of the heart, which furnishes an additional amount of apparently normal tissue—appears not to occur in any tissue without proportionate loss of the self-sustaining power of the tissue. So that, when a heart is hypertrophied, you generally find that some of its substance, usually the internal part, is in a state of fatty degeneration. The overgrown tissue is weaker

in its nutrition, so that the failure of general nourishment that precedes death tells exceptionally on it. Besides the division of hypertrophy into simple and numerical, which concerns only the method by which the increase is arrived at, there is another division of hypertrophy of greater practical importance, which is indifferent to the simple or numerical nature of the change. This division is into true and false hypertrophy. Hypertrophy is said to be *true* when all the components of a tissue, and especially the functioning components, are increased; and *false* when only part, and especially the mechanical supporting part of the tissue, is increased. The muscle and bone of the great arm of the typical blacksmith is usually said to be truly hypertrophied. Their proper elements are apparently increased, and the working power of the part is augmented. But, when thinking of this common example of altogether effectual increase, we must not be misled by it into supposing hypertrophy to be an innocent thing generally. In truth, it would be perhaps more proper and natural if, instead of thinking the blacksmith's arm hypertrophied, we were to think weaker arms atrophied. The blacksmith is one who gives his arm its full and fair development, and we do him scant justice in going at once from his fully-developed arm to really morbid hypertrophies. Such as pass their lives on office-stools do not give their legs and arms a fair chance, and the thinness which, when they set to athletics, becomes a stoutness,—this thinness it is which is the morbid and unnatural thing.

If you exclude this and the like cases of healthy action producing full development of the normal germ-power of a man's frame—for a man will get no new fibre by being a blacksmith: he only brings out what strength nature prepared in him; and you do not find all blacksmiths to have these great arms, but only those that are originally muscular—and if you take up hypertrophied hearts, bladders, and such examples of truly morbid enlargement, I believe you will always have occasion to remark that, when the heart or bladder is greatly overgrown, there are always some signs of weakness and imperfection in the nutrition of the bloated tissue. Or, at least, that when the abnormal nutritive supply which enlarges and sustains the part begins to fail, the bloated organ falls with exceptional rapidity into a state of degeneration. The best example of this is in the case of the uterus after delivery, which, we know, soon, in its muscular tissue, passes through such changes that the muscular fibres become grains of fat and albumen, and are absorbed and removed, the free circulation through the tissue of which they, during pregnancy, had the benefit, having ceased, and left them to starvation.

In last lecture I endeavoured to state how inflammations become peculiar or specific, and we found that it is sometimes from peculiarities in the external or extrinsic irritant cause of the inflammation, and sometimes from peculiarities in the intrinsic power, which furnishes the growth of those elements which constitute the inflammatory product.

Now, it is worth while to reflect on this latter power of growth. If we see an inflammation as a thing that may begin upon a surface—say of the skin—and then, according as this thing inflammation is more vigorous, it dips deeper into the skin, then we have a very insufficient and false conception of an inflammation. There is no such thing as this objective inflammation. Thinking so of it is like thinking that fire is the cause of combustion, and that the fiercer the fire the more combustion it causes, the truth being that the combustion creates the fire, which is only its phenomenal product; and so inflammation is the phenomenal product of the cell changes, and consequent nerve and vessel-play of irritated parts. One who thinks only of inflammation dipping deeper and deeper into the skin will never understand the difference between eczema and ecthyma. But seeing eczema as epithelium and ecthyma as corium change, the change having in each respectively still the nature of epithelium and corium, we get rid of the false objectiveness of the inflammation, and realise the organic or intrinsic factor of these diseases. The reality and importance of the distinct kinds of productive action which the several elements of tissue exert we cannot realise too plainly; it is well, I believe, to make the effort to appreciate this intrinsic factor in all cases.

Now, what we call typical inflammations appear to us most naturally, and no doubt correctly, as being always the products of some extrinsic thing acting on, disturbing, and elevating into increased and confused activity the growing and nourishing power of the cells of the part affected.

But, in less typical inflammations, we may detect no extrinsic cause, while the growing and nourishing power is disturbed so gently and, if I may so speak, so continuously, with the normal action of the part that the result is an almost insensible augmentation of the whole of the substance of a part, as in ichthyosis of the skin, the alliance with inflammation being, perhaps, only evinced by the greater readiness of such parts to inflame acutely.

Such apparently spontaneous changes in the nourishing power of an organ may, when there is no suspicion of an extrinsic irritant, lead an organ into a very great overgrowth, which produces tissue of perfect development. A whole organ, or part of an organ, may thus swell into a tumour—the augmentation being a *true* hypertrophy, very different from the false or spurious hypertrophy which sub-irritant causes bring out in compound organs by augmenting the mechanical elements at the expense of the functioning elements. Take, as instances, enlargement of the thyroid gland or spleen, or any lymphatic gland; these will increase enormously, without any alteration of their structure.

These productions will, of course, come within the description of hypertrophy which we have arrived at, and it will be well to consider their place in it. Such slow growths of the tissue of an organ certainly are very remote from inflammatory action, and they make up the side of hypertrophy which is least in relation to inflammation. Indeed, you will see that it is in this direction that hypertrophy merges towards the confines of tumour. We shall see that, in the formation of tumour, the intrinsic formative power of tissues appears to have as much way as in the normal processes of development. A tumour arises like a liver or a kidney—so much so that Mr. Simon, in his very ingenious theory, makes the tumour equivalent to a liver or a kidney—in fact, subserving some function of an eliminative kind, which we may not be able to identify and realise, but which is, nevertheless, required at the time to free the blood from some abnormal constituents, of which such tumour is the proper eliminator. I shall speak more of this view when we consider the nature of tumours, and we shall then see that the sort of hypertrophy of the thyroid, spleen, etc., of which I am now speaking, is commonly included among tumours. The relation of it to the intrinsic growing power makes some such recognition of its relation to the growths proper and, indeed, necessary.

On the other hand, we find in inflammation that, while some tissues, as I have just said, increase, others waste away. And the same difficulties exactly are experienced in such cases of atrophic wasting of tissue as in hypertrophic increase, in saying whether they belong to inflammation or not.

Atrophy stands to inflammation in exactly the same relation as hypertrophy; for some elements of tissue, the tubular, in particular muscular and nervous fibres, and gland cells when inflammation is intense or prolonged, waste away under inflammation. Now, when atrophy of nervous and muscular elements is found, the question whether this atrophy is or is not inflammatory is just such as the question we have lately been considering—whether, in case of increase of connective in a pleura, the increase is due to inflammation, or is simple hypertrophy. In either case, indeed, we have a question, partly real and partly verbal. It is real in so far as it requires us to settle whether pain, heat, and disturbed action, etc., which make up clinical inflammation, have accompanied the atrophic process; it is verbal in so far as it only seeks whether it is proper to use the term inflammation to this kind of process when the phenomena are known.

It is, however, important to recognise this relation of atrophy to inflammation. Inflammatory atrophy is a thing which we often meet with. The first sign of inflammation in solid texture is commonly loss of bulk and consistence; it is so in the brain and liver, when inflammation is acute. The question, whether certain wastings of nerve fibres in the substance of the spinal cord and brain are passive atrophies or are inflammatory, is a very nice question, and one of much interest now that great attention is directed to locomotor ataxy and sclerosis. I have already noticed that the connective elements—the neuroglia—of the cord are augmented in the posterior columns in ataxia, while the nerve fibres waste away, yet no other signs of active inflammation are present; signs of functional irritation of the affected parts are, however, present. Knowing that the neuroglia, as a connective substance, will increase from chronic irritation, and the nerve fibres will waste from the same cause, we get double reason, from the co-existence of these changes, for thinking that the cause of the disease belongs to the inflammatory kind—that it is a slow inflammation of the posterior columns, though evidently the inflammation is in very low degree.

When considering the several kinds of hypertrophy, we found that some kinds of hypertrophy led us into tumour by furnishing growths of organs to large size from such an augmentation

as appears to be continuous with, and of a kind identical with, the power of growth that originally produced them.

Now, in a way opposite but corresponding to this fact in hypertrophy, we have the lapse of atrophy into degeneration and decay. Such disappearance of the nerve and muscle fibres under ordinary inflammations, and of the glandular cells under very severe and prolonged inflammations, make a certain relation of atrophy to inflammatory hypertrophies. But there are some examples of atrophy which show us a breaking down of the elements of texture affected, as though from simple failure of the growing and maintaining power; and the circumstances of these occurrences make it tolerably certain that the cause of the atrophy is such simple failing of power. They occur after prolonged diseases or in old age.

Little interest would belong to the atrophies of old age, if old age came upon us uniformly in all our components; we then need not study each part; but we age in systems. Some men, especially gouty men, have kidneys that grow old before their time; every person over three years old has some old age about him, and we cannot over-estimate its importance. In different people this atrophy affects different systems; in some the lung ages and wastes early; in others the aorta or cerebal arteries; in others the bones or cartilages. The same fact is familiar enough in different people, in the falling off of the hair, which we know occurs in people without any weakness in intellectual and muscular vigour. Many insurance offices ask after the teeth and after arcus senilis, as if the failing of one system showed all to be weak; but no insurance office, as far as I know, cares for a man being rather bald, though this is quite as significant as the other signs sought. Arcus senilis has no relation to other fatty degenerations, so as to prove more dangerous states within, although it has been thought to have such a value. We age in systems; the cornea in one, the arteries in another. It is interesting to notice where the arcus begins: this points to its cause. You see the arcus first under the upper lid in the part of the cornea so covered and prevented from its function of transmitting light; a patch of arcus is very common there, evidently from loss of its function. In the same way, when the bones are old and fatty, you will find the fixed ribs soft when the false ribs are hard—the latter still doing duty more actively as levers in breathing than those fastened to the sternum. We mentioned that, just as hypertrophy passed into tumour, so atrophy passes into degeneration. There is a very sharp distinction between atrophy and degeneration; the former means wasting without change of composition, the latter means change of composition; but I cannot say this very natural distinction has much value, for we rarely see elements waste very much without change of their composition; the distinction is best realised in the case of baldness (atrophy of hair) and greyness (degeneration of hair). The two forms of senile imperfection of the lung are also like this in their relation—the one being a passive wasting away of air cells, leaving a simply thin, delicate, atrophic lung; the other a coarse, thickish, bloated lung deformed with blebs, and in its minute texture having undergone rather transformation of its elastic tissue to an inelastic or less elastic substance, with fatty degeneration of its epithelium. The first is a bald lung, the second a grey lung; and each kind has its own peculiarities of history and results. Except in these examples, we scarcely ever see wasting without degeneration of the wasting tissue into fat grains, or albumen grains, or lime, or pigment. Some authorities feel a satisfaction in ascribing this change of the cell elements into fat to a slower flow of the liquids in their course within the cells; but the immediate cause of it is not likely to be made out until we know better what constitutes life.

There is a very close relation between the abnormal change to fat which always supervenes on mere atrophy and the normal fatty change which occurs in the life processes of some tissues. Thus, in the formation of milk, cells grow, become fatty, and break into a fluid charged with fat. What is normal in these cells of the acini of the mamma may occur abnormally in the muscular and elastic fibres of the arteries in atheroma, and in many other places, even to the connective and other tissues of the milk glands, so that in old people the mamma itself turns to a sort of milk. This is so far unfortunate; but it is not only in the case of strictly normal fatty destruction, as in milk formation, that we have a desirable result. Take the case of pneumonia, which you know now is anatomically a charging of the air vesicles of the lung with vast crowds of nucleated cells which stuff the vesicles.

The normal process of recovery from pneumonia consists of a fatty change of these cells until they behave exactly like milk cells, and burst into a milky fluid that is easily absorbed. Thus we get rid of them. The fatty change of these cells is the principal cause of the grey colour of old hepatisation, and it is the promise of recovery, not at all to be confused with purulent infiltration of the lung, which is always primary, and never results, as a further stage, from grey hepatisation, as is often assumed. Purulent infiltration of the lung only occurs in low and bad inflammations, and is purulent from the first; pus will come from the crepitant lung. The fatty change that is normal in milk and fortunate in the pneumonic cells is a serious disease when implicating the arterial coats, through exhaustion of their vitality in old age, and it is a serious and significant thing when occurring in the epithelium of kidney as a consequence of the exhaustion from long-lasting inflammation of Bright's disease, where its presence makes the whiteness of the large white kidney—not that the fat is the disease, but it is an index of the inflammatory exhaustion. For, as we have seen that atrophy may be the direct result of inflammation in muscle fibres and nerve fibres, so it may also be the indirect result of inflammation in tissues little prone to such atrophy; indeed, no tissue is exempt from this. Excessively-prolonged irritation will at last lead to the wasting away and degeneration of areolar tissue of skin. In the leprous subject which we inspected two years ago, the skin and subcutaneous tissue, which had long been the seat of the leprous inflammation, had its elements wasted beyond microscopic recognition, and lines of fat and pigment took the place of areolar fibre-bundles, the skin being so rotten in consequence, that it tore when pinched. Long-standing inflammation so produces the results of senility.

Atrophy, then, like hypertrophy, stands in this relation to inflammation—that inflammatory irritations produce it directly; but, on the other hand, either occurs without inflammatory irritations, and those cases, where they so occur, lead into opposite kinds of pathology—atrophy into senescence in decay, hypertrophy into juvenescence in tumour.

ORIGINAL COMMUNICATIONS.

LABIO-GLOSSO-LARYNGEAL PARALYSIS.

By LAWSON TAIT, F.R.C.S.E.

I COMMUNICATE the following rough notes on this most interesting malady, with no hope that I can add anything new to the almost exhaustive researches on the subject by Tronsseau, Duchenne, and Lockhart Clarke, but trusting that, by adding a little to the store of facts bearing on it, I may contribute slightly to some future generalisation, or that, at least, I may draw the attention of a few to it, to whom it may previously have been unknown. The disease is far from being common, and the record even of a single case is of value.

A. S., aged 36, was brought to me by a friend, on Nov. 25, 1867. Before a single question was asked or a word spoken, I had made up my mind that the patient was suffering from Trousseau's disease. I had never seen a case, but his description is too vivid ever to be forgotten. The patient stood before me with a large handkerchief in her hand, with which, every few seconds, she mopped her mouth. The lower part of the face was perfectly expressionless, while the upper was overcast with intense anxiety. In answer to my question as to what she suffered from, she turned to her friend, and, giving the characteristic grunt, confirmed my immediate diagnosis only too plainly. This grunt she gave vent to at irregular intervals, and apparently unconsciously. Occasionally, also, there spread over her face a horribly sardonic grin. The history given by her friend, and assented to by herself by means of signs, was that about eighteen months previous to my seeing her, she began to experience difficulty in speaking, that her family had difficulty in understanding her; certain words especially were deficient—those containing labials. Her speech became gradually more and more indistinct until six months ago, when she lost it entirely; and as the difficulty in speaking increased, so did that of retaining the saliva. Her intelligence was never in the least affected, but remained clear to the very end. Taste was perfect on every part of the tongue, as I determined by careful experiment, but the organ lay immobile on the floor of the mouth. When she took food she had to employ her fingers to place it between the teeth, and when she drank she had to do so like a bird, by closing the mouth with the fingers and holding the head back. She very frequently had severe fits of coughing when she ate or drank. She had been in receipt of advice and treatment, and came to me as a sort of

last resort; but when I told her that her case was hopeless, she returned home and placed herself under the care of my friend Dr. Mackenzie, of Altofts, and under his care she remained until she died, in the beginning of 1868. From a misunderstanding, no post-mortem was obtained, and all that I know further of the case is contained in a note from Dr. Mackenzie, to the effect that she died from suffocation, caused by her inability to expectorate, consciousness remaining clear to the very end.

This was undoubtedly a case of Trousseau's disease, and I would refer those who are not familiar with his lecture on it, to Lockhart Clarke's papers, for the anatomy of the nerves implicated—an anatomy now so complete as to make Duchenne de Boulogne exclaim, when it was described to him, "La maladie est expliquée!"—and also to a valuable paper by Dr. Wilks in the last volume of *Guy's Hospital Reports*.

Waterloo-street, Birmingham.

POLYMORPHISM OR XENOGENESIS IN DISEASE.

By METCALFE JOHNSON, M.R.C.S.

During the last few years it has occurred to myself, as well as other Practitioners, to notice that the symptoms characteristic of certain diseases (by which they have been classified by nosologists) have developed themselves in such a manner as to render the former boundary lines less and less distinct, until we have seen cases which presented the distinctive characteristics of two separate diseases in one person at the same time. Thus, I repeatedly see a rash of distinct measles on the skin, with the equally characteristic tongue and throat of scarlatina, followed, in many cases, by dropsy and albuminuria. I have seen frequent cases of cynanche trachealis with rubeola, cynanche trachealis with hooping-cough; in one case cynanche parotidea, while the other members of the family developed rubeola, in close proximity to a house where scarlatina maligna was fatal in two cases. Indeed, these diseases are at present epidemic among us in such curious combinations, that it appears probable that the cause of all is one and the same thing. The similarity of rubeola to scarlatina is noticed by most writers. Dr. Thos. Watson groups "chicken-pox, measles, and scarlet fever" together, and says, "like different human faces, all the complaints belonging to this group have the same set of features, and, therefore, a mutual resemblance."

In measles, he says of the eruption, "you may feel it slightly elevated above the general surface of the skin." Again he remarks, "the eruption is the distinguishing feature of measles, but the catarrhal affection is in every way the most important." Again, "on the arms and legs the eruption of scarlatina is more spotty, more papular, and the papulæ are somewhat prominent;" and the appearances of the tongue in scarlet fever are also peculiar and characteristic: "At length the whole surface of the tongue becomes preternaturally red, and clean, and raw-looking"—"like a strawberry."

In our present epidemic these characters are so mixed up that it is difficult to assign the class to most of the cases.

The following are records of two children who occupy the same bed and are ill at the same time.

Case 1.—A. Z., aged 3; March 27. Rash distinct, raised, vesicular; tongue slightly furred; catarrhal symptoms; no sore throat; fever slight.

28th.—Rash very distinct, especially on arms; tongue furred at back, front red; enlarged papillæ; ulcers on lips; cough harsh, rather resembling hooping-cough (which is now epidemic); temperature 98°.

29th.—Temperature 99·4°; tongue clean (strawberry); submaxillary glands slightly swollen.

31st.—Rash disappearing. Recovery.

B. Z., aged 2; March 31. Rash uniform, red; swelling of submaxillary glands; tongue slightly furred; temperature 101°·4. Between the last date and the following a Medical friend visited the child for me, and pronounced it scarlatina.

April 5.—Rash very distinct (scarlet); coryza; throat ulcerated; submaxillary glands enlarged; bowels confined.

6th.—Bowels opened; temperature 101°; throat less swollen.

7th.—Temperature 101°; skin peeling off; breathing calm.

8th.—Temperature 99°; better, but very weak.

15th.—Submaxillary glands enlarged; much discharge of puriform mucus from nose and mouth; eyes much swollen; no albuminuria.

29th.—Submaxillary glands less swollen; discharge from mouth and nose less; large petechiæ, size of peas, all over the body, about six inches apart.

May 3.—Petechiæ disappeared; after this made a slow but perfect recovery.

Case 2.—Miss E., aged 5 years; April 23. A rubeolous rash in small patches, not raised; frequent sneezing; cough harsh, with a slight whoop. In a week she was quite well. At the same time, Mrs. E.'s baby, aged 7 months, was covered with a small vesicular rash, which faded away in a few days.

Case 3.—Mrs. Y., aged 28; April 27. Sore throat; œdema glottidis; ulcer of right tonsil; enlargement of submaxillary glands; small vesicles on face and chest.

30th.—Vesicles less red; small dark crusts forming; a speedy recovery.

Case 4.—A. B., aged 8; April 24. Slight ulcer of tonsils; swelling of submaxillary glands; a few spots of chicken-pox; a speedy recovery.

Case 5.—Miss Q., aged 5; April 12. Rash, like a red cloak, all over the face, arms, and neck; body and legs less red.

13th.—Rash even, scarlet; tongue whitish; temperature 100°.

15th.—Rash more distinct, not raised, most distinct on arms and legs; temperature 97°; tongue clean, red, papillæ not enlarged.

16th.—Tongue clean; no prominent papillæ. A few vesicles on scalp.

18th.—Progressing favourably.

30th.—A scarlet rash on face and arms; vomiting; fever; dyspnœa.

May 4.—Abscess in axilla.

20th.—Rash still apparent, red, not raised, crescentic.

22nd.—Rash gone. A rapid recovery.

On June 2 Mrs. Q.'s baby, aged 6 months, broke out in a rough, red, patchy rash, having some resemblance to a croton oil rash of a few hours, which began on the loins three days since. Recovery took place in a few days.

Case 6.—Miss A. W., aged 5; had measles as a baby.

July 17.—Vomiting, diarrhœa, delirium in sleep; tongue white; submaxillary glands swollen; tonsils inflamed; rash on legs in patches; more diffused and scarlet on arms; temperature 101°.

18th.—Rash on arms and body more prominent.

20th.—Tongue beef-red; submaxillary glands still swollen.

25th.—Tongue very red; papillæ enlarged; tonsil glands ulcerated.

After this a rapid recovery.

Master J. W., aged 3, sleeps in same bed with the above. July 23.—Rash distinct, prominent crescentic patches; evident measles.

July 25.—Rash very distinct and prominent on arms; tongue clean, papillæ not enlarged; no swelling of submaxillary glands; made a rapid recovery.

Case 7.—A. B., aged 9 months; distinct rubeola.

Mother, ulcerated throat; no rash.

R. B., ulcerated throat; tongue red; enlarged papillæ. The whole family had a very severe attack of scarlatina. One child, aged 5 years, had a very large abscess of cervical glands, and extending over the breast; all recovered.

Case 8.—C. D., aged 13. August 31. Ulcerated tonsils; no rash.

September 1.—Rash on body; patches very rough; small elevated spots on arms; tongue red in raphe.

D. D., a cousin and playmate, had distinct scarlatina on the same days, with cancrum oris and abscess of tonsils.

In the cases here detailed, some of which were children who apparently absorbed the disease under the same atmosphere and circumstances, yet developed appearances so different, that, had they been apart from one another in time and locality, they would have been classed under different heads of disease. As it is, however, the appearance of the epidemic, when viewed as a whole, leads to the opinion that the even scarlet rash and the raised distinct vesicular rash, if not the varicella eruption, are but varieties of development from one common poison.

In a paper entitled the "Polymorphic Characters of Monas Lens," published in the *Monthly Microscopical Journal* for April, 1870, I have ventured to suggest that monas and its congeners, as found in the atmosphere, and deriving origin from the plants allied to the unicellular algæ, may present points of interest as a probable means, whereby the dyalysis known as epidemic disease may be brought about. In this, and two preceding papers, I have endeavoured to show that polymorphism, resulting from xenogenesis, is one of the characters of these dyalisers, and that the product of growth of these zoophytes, microsymes, or bioplasts varies as the "accidents

of their life," and I am inclined to think that an observation of Professor Darwin's facts in reference to variation would lead us to expect a variation in the efflorescence of cutaneous disease, supposing its origin to be from some such cause as the presence of a dyaliser in an atmosphere varying as to composition with every great or small meteoric change. In considering xenogenesis, it must be borne in mind, from Mr. Darwin's facts, that there are two phases of the law of genesis—viz., variation and recurrence by a modifying balance, of which xenogenesis is so regulated as to prevent confusion of characters in the resultant organism.

Notwithstanding the remarks of Professor Beale in his most interesting paper on germs in disease (*Monthly Microscopical Journal*, October, 1870), I am still inclined to the opinion that the sources of disease will be found as belonging to the zone of protozoa; they may be infinitesimally minute; but of the progress of epidemic disease, it may be said that it only resembles in its spread and growth the germination of organised life. The mode of spread of *so-called* contagious or infectious disease is inconsistent with a gaseous mode of propagation, as it would in that case radiate in all directions, instead of spreading, as it does, in eccentric and apparently capricious modes. See "Hawkins' Progress of the Asiatic Cholera."

However much or little facts may seem to support these views, it can at any rate be shown that, as the world grows older, the circumstances, atmospheric as well as social, are every day developing new varieties of combination; and the more evident facts of our human history point to causes for such modifications of aptitude to develope disease as will lead us to consider that the morbific causes of past days would show results at the present time, different from what must have been the case a hundred years ago. The public are continually reminding us that "heart disease" is more frequent than it was, and the old sportsmen lament their "degenerate" offspring.

The arts of civilisation, with richer and cheaper food, warmer clothing, drier housing, and greater objectivity in general experience, extended over larger numbers of the community, tend to produce an increased population of the Wohlgeboren class; and though

> "The grand old gardener and his wife
> Laugh at the claims of *long* descent,"

Yet, when we see the results of this more gentle nurture in the short upper lip, the aquiline nose, and high instep becoming more common among us than formerly,(a) we can hardly fail to expect that the cells of our bodies will in that process of disintegration which we call "disease" show progressive changes, which are seen equally around us on whatever side we look.

True it is that my few cases, which "serve to point a moral and adorn the tale," are like the "one swallow that does not make the summer;" but the record of more cases would be but to describe the everyday experience of each member of our Profession, and I therefore venture to say, "*Ex uno disce omnes.*"

Lancaster.

CASES OF

ELEPHANTIASIS OF THE SCROTUM,

IN THE MEDICAL COLLEGE HOSPITAL, CALCUTTA, FROM 1866 TO FEBRUARY, 1870.

By J. FAYRER, M.D., C.S.I., F.R.S.E.,
Professor of Surgery and Senior Surgeon, Medical College Hospital, Calcutta.

(*Concluded from page* 559.)

1869.

Case 1.—S. I., a Mahomedan washerman, aged 40, of Tarrukeshwar, admitted October 11, 1868, with a tumour of three years' duration, which weighed 2 lb. 13 oz. after operation, on January 12, 1869. Had double hydrocele and elephantiasis of the right leg and foot; was subject to elephantoid fever, and had had syphilis. The testicles were healthy. Discharged cured on May 23, 1869.

Case 2.—S. S., a Hindoo watchmaker, aged 35, of Burdwan, admitted February 5, 1869, with a tumour of eight years' duration, which weighed 6 lb. 6 oz. after operation, on February 12, 1869. Had double hydrocele, but no elephantiasis of legs; was subject to elephantoid fever, but had no history of syphilis. The testicles were healthy. Died of cholera on April 3, 1869.

Case 3.—J. C., a Hindoo priest, aged 25, of Goirrah, admitted February 12, 1869, with a tumour of two years' duration, which weighed 1 lb. after operation, on February 16, 1869. There was no hydrocele; was subject to elephantoid fever, and had had syphilis. Testicles were healthy, and he was discharged cured on April 10, 1869.

Case 4.—G. D., a Hindoo farmer, aged 30, of Shuree, admitted January 15, 1869, with a tumour of twelve years' duration, which weighed 2 lb. 10 oz. after operation, on February 16, 1869. There was hydrocele of the right side; was subject to elephantoid fever, but had no history of syphilis. Testicles were healthy. Died of pyæmia on February 26, 1869. No post-mortem permitted.

Case 5.—H. C., Hindoo, aged 50, of Kidderpore, admitted February 24, 1869, with a tumour of five years' growth, which weighed 4 lb. 8 oz. after removal, on March 16, 1869. There was hydrocele on the left side; no history of syphilis; and he was discharged cured on July 11, 1869.

Case 6.—J., a Mahomedan driver, aged 40, of Beniatollah (Calcutta), admitted March 24, 1869, with a tumour of a month's growth, which weighed 2 lb. after operation, on March 26, 1869. Had double hydrocele; was subject to elephantoid fever; and had had syphilis. Discharged cured May 15, 1869.

Case 7.—M. A., a Mahomedan priest, aged 35, of Jessore, admitted April 3, 1869, with a tumour of eighteen or nineteen years' growth, which weighed about 2 lb. after operation, on April 13, 1869. Discharged cured on July 19, 1869.

Case 8.—R. N., a Hindoo, aged 26, of Hurripore, admitted May 28, 1869, with a tumour of two years' growth, which weighed 5 lb. 2 oz. after operation, on June 3, 1869. Had hydrocele of the left side; was subject to elephantoid fever, but no elephantiasis of legs; testicles healthy, and he was discharged cured on September 28, 1869.

Case 9.—G. R. H., a Bengali sircar, aged 45, of Tontoniah (Calcutta), admitted on April 20, 1869, with a tumour of ten years' growth, which weighed 2 lb. 5 oz. after operation, on June 28, 1869. No hydrocele; the left leg was hypertrophied; had had elephantoid fever and syphilis. The testicles were healthy. The femoral artery was ligatured in this case for elephantiasis of the leg on October 4, 1869. He was discharged on December 31, 1869, without any permanent improvement in the leg, but cured of the scrotal tumour.

Case 10.—R. B. B., a Bengali Brahmin, aged 30, of Nimtollah (Calcutta), admitted July 30, 1869, with a tumour of seven years' growth, accompanied with right oblique inguinal hernia. Operated eight years before for radical cure. There was no elephantiasis of legs, nor hydrocele; no history of syphilis, but he had had elephantoid fever. The tumour was removed in the usual way on July 31, 1869, but the hernial sac having been cut, it was stitched up with iron wire sutures to the extent of one inch. The tumour weighed 4 lb. 15½ oz., and the testicles were healthy. A little peritonitis ensued, which soon passed off. The wound took a long time to heal, and he was discharged cured on January 4, 1870.

Case 11.—M., a Mahomedan tailor, aged 36, of Puddipukur, admitted August 6, 1869, with a tumour with chronic enlargement of right testicle, and hydrocele on the left. The tumour was removed with the diseased testicle on August 21, 1869, and it weighed 2 lb. 3 oz. There was no history of syphilis, but he had had elephantoid fever. The patient was anæmic before operation, and he died of tetanus on September 11, 1869. No post-mortem permitted.

Case 12.—M. D., an Ooryah bearer, aged 40, of Chorebagan (Calcutta), admitted September 27, 1869, with a tumour of two years' growth, which weighed 3 lbs. 9½ oz. after removal, on October 6, 1869. There was no hydrocele, and no elephantiasis of legs; never had elephantoid fever, but had had syphilis. Suffering a long time from pyæmic symptoms; he recovered at last. Discharged cured on February 5, 1870.

Case 13.—H. M., an East Indian clerk, aged 39, of Calcutta, admitted November 17, 1869, with a tumour of seven years' growth, which weighed 5 lb. after operation, on November 20, 1869. There was an old-standing hæmatocele of the left tunica vaginalis, with laminated fibrinous clots adhering to the walls. Had had syphilis. The testicles were healthy. Discharged on March 15, 1870, with the wound nearly healed.

Case 14.—K. D., a Hindoo mohurrer, aged 25, of Chundunnugger, admitted November 22, 1869, with a tumour of five years' standing, which weighed 12 lb. after removal, on December 2, 1869. There was neither hydrocele nor any

(a) Take the types of anatomy referred to (lip, nose, and ankle) in the dressmakers, waitresses, and barmaids taken from the purely industrial classes in our large towns, and compare them with the country farm servant or dairymaid, and their remarks will be found to hold good.

other elephantiasis; was subject to elephantoid fever, but there is no history of syphilis. Testicles were healthy. He died on December 16, 1869, from tetanus. No post-mortem.

Case 15.—P. C., a Bengali Brahmin, aged 25, of Kossipore, admitted December 5, 1869, for hypertrophy of the prepuce of three years' growth. Was operated on as for scrotal tumour on December 14, 1869. The parts weighed about 1 lb. Discharged cured on February 9, 1870.

Case 16.—K. C., a Hindoo goldsmith, aged 23, of Budabatty, admitted November 28, 1869, with a tumour of only two months' growth, which weighed about 1 lb. after removal, on December 18, 1869. There was hydrocele of the right side, but no elephantiasis of leg. He is now doing well. The wound has nearly healed.

Case 17.—T. R., Hindoo, aged 32, of Potuldangah, admitted November 7, 1869, with a tumour of three years' growth, which weighed about 3 lb. after operation, on November 11, 1869. There was hydrocele, but no elephantiasis elsewhere. Testicles were healthy; and he was discharged cured on January 25, 1870.

1870.

Case 1.—F. K., Hindoo, aged 25, of Chagdah, a blacksmith, admitted January 8, 1870, with a tumour of only three months' duration, which weighed 2 lb. after operation on January 11, 1870. There was hydrocele of the left side. No elephantiasis of legs. He is now doing well and the wound is cicatrising.

Case 2.—H. J. De S., an East Indian, aged 28, of Calcutta, admitted January 19, 1870, with a tumour of only three months' growth, which weighed 2½ lb. after operation on January 22, 1870. There was neither hydrocele nor elephantiasis of legs. Gradually sank from exhaustion on February 7, 1870. No post-mortem.

Case 3.—H., Hindoo, a cultivator, aged 15, of Burdwan, admitted February 28, 1870, with a tumour of ten years' growth, which weighed 4¾ lb. after operation on March 2, 1870. There was a large hydrocele on the left side and a small one on the right, but no leg disease. Died of tetanus on March 11, 1870. Post-mortem :—A decolorised clot in the right ventricle, other organs being healthy.

Case 4.—O. C. K., Hindoo, aged 40, of Nuddea, admitted February 19, 1870, with a tumour of ten or eleven years duration, which weighed 1¾ lb. after operation on March 7, 1870. There was a large hydrocele on the right side, and a small one on the left. No elephantiasis elsewhere. The right testicle was so imbedded in the thickened tunica vaginalis and hypertrophied structures, that it was removed with the hypertrophy. He died of exhaustion on March 11, 1870.

Race.	Number.	Recovered.	Died.	Cause of Death.							Remarks.
				Shock.	Tetanus.	Pyæmia.	Pulmonary embolism.	Cholera.	Diarrhœa.	Exhaustion.	
Hindoos	45	*33	12	...	4	4	2	1	...	1	*Two of these cases are still in Hospital (April 19, 1869).
Mahomedans ...	13	9	4	...	1	...	2	...	1	...	
Eurasians ...	4	3	1	...	...	...	...	...	...	1	
Total ...	62	45	17	...	5	4	4	1	1	2	

There were 62 cases of scrotal elephantiasis; of these 45 were in Hindoos, 13 in Mahomedans, and 4 in Eurasians. The weight of the largest tumour was 22 lb., of the smallest 14 oz. The shortest time under treatment from the date of operation to that of discharge was 50 days of recovery, and 4 days of deaths, the longest 273 days. The mortality was rather high, and was due to the following causes :—Pyæmia, tetanus, pulmonary embolism, cholera, diarrhœa, exhaustion. A large proportion of the deaths were due to causes that one cannot but think must be classed under the head of "avoidable," but which it is to be feared will prevail so long as Hospitals are not constructed on sound hygienic and sanitary principles. The tumours were all comparatively small, indeed, it is rare to see a large one now. The inference is that most of the very large growths have been removed, and that the people no longer wait until exaggerated growth drives them to seek admission into the Hospital.

I would remark the prevalence of one cause of death, that which for want of a better name I have called cardiac or pulmonary embolism, a morbid condition of the blood in which fibrinous coagula form in the right side of the heart or pulmonary circulation and cause death by apnœa.

I have already recorded my views on this subject in former communications (*vide Indian Medical Gazette*, October, 1866, p. 281), and I would remark that it is a form of disease that may occur after Surgical operations involving removal of large portions of the body, and in exhaustive diseases where the blood assumes that imperfect or post-perfect condition in which fibrinous coagula have a tendency to form. I am aware that it is said by some that this is only a condition due to the moribund state, but I am convinced it is not so in all cases, and that many are hurried off by it who otherwise would have recovered.

I am indebted for the foregoing abstract of cases to my House-Surgeon, Baboo Ishen Chunder Roy.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

We are indebted to Mr. L. Beech, the dresser of the case, for the notes of the following very instructive instance of the successful employment of the carbolic acid method for preventing suppuration. As the result of this mode of treatment is said to depend entirely upon the attention given to details, we have been glad to record the case as fully as possible.

COMPOUND DEPRESSED FRACTURE OF RIGHT PARIETAL BONE IN A BOY, FOLLOWED BY HEMIPLEGIA—RAPID CLOSURE OF THE WOUND, WITHOUT SUPPURATION, UNDER LISTER'S ANTISEPTIC DRESSING—RECOVERY, WITH RESTORED VOLUNTARY MOVEMENT.

(Under the care of Mr. COUPER.)

On January 25, a healthy, well-nourished boy, aged 6, was brought to the London Hospital a few minutes after being struck down by a heavy chimney tile, which had fallen on his head from the roof of a house. He was pale, cold, and all but pulseless. By-and-bye he vomited and shivered repeatedly. His pupils were dilated and sluggish. Although drowsy, he breathed without stertor, and was partially aroused when loudly spoken to. There was complete loss of voluntary motion in the left leg and arm, but sensation was unimpaired on both sides of the body. Thus, when the right palm or sole was tickled or lightly pricked with the point of a pin, it was instantly withdrawn, with a gesture of annoyance. On the other hand, when the left hand or foot was pricked, there was the same impatient gesture, but the irritated limbs were not at first withdrawn. When the irritation was repeated, the right hand was used to grasp and withdraw the left arm, or the right foot was placed underneath the left ankle, and an attempt thus made to withdraw the irritated limb. There was a scalp wound two inches long, that communicated with a depressed fracture of the right parietal bone, running parallel with and close to the sagittal suture. Two plates of bone, each measuring 2″ by ¾″ were depressed into a deep furrow, in the floor of which their edges met. At the posterior wider end of this furrow was a cross-piece of bone, depressed more deeply than the other fragments. As the child cried, venous blood welled up from the fissures of the fracture. The scalp was at once shaved and washed with carbolic acid dissolved in nineteen parts of water. Chloroform was administered. Mr. Couper then enlarged the skin wound, and after removing with a small trephine just so much of the uninjured bone as was necessary to admit the blade of a pair of duck-bill forceps, removed the fragments without difficulty. The dura mater had not been opened, but its outer surface bled a little from some minute veins which had been lacerated. The hæmorrhage ceased after the wound had been syringed with the one-to-nineteen watery solution of carbolic acid. The edges of the skin were carefully cleansed of soot particles, with which they were blackened, and then were brought accurately together by numerous sutures of fine carbolised silk. The cavity of the wound was next distended by the one-to-nineteen solution, in such a manner that the carbolic acid reached and remained some minutes in contact with every portion of its surface. Finally, a piece of lint dipped in carbolic acid dissolved in four parts of linseed oil was laid on the wound, covered with gutta-percha tissue, and retained by a bandage. All the instruments were smeared with carbolised

oil before being used, and the hands of the operator and his assistants were moistened with the one-to-nineteen solution before touching the wound. During the operation a fine stream of this solution was directed from time to time upon the wound. Six hours later the left side began to recover voluntary movement. The boy then slowly drew up the leg when it was pinched or irritated, but the arm was still powerless. Eighteen hours after the operation, when asked to give the left hand, he grasped the wristwith his right hand and so raised the paralysed limb. A few hours later the left arm could be moved feebly. On the morning of January 27 the movements were stronger. When asked to give the left hand he swung it out with an irregular, jerking movement, such as is seen in chorea; at the same time he grasped firmly with it. This defective co-ordination of movement quickly disappeared, and no vestige of it was discernible after Jan. 29, the fourth day from the accident.

The remaining cerebral symptoms disappeared with equal speed. Twenty-four hours after the accident, although still very drowsy at intervals, he could be roused more easily. At that time he had but one answer to every question that was put to him—*i.e.*, he told his name and that of the street in which he lived. At the end of forty-eight hours he was more collected, answered questions unhesitatingly and without mental confusion; complained of pain in the head and of great thirst, and drank a large quantity of milk and some beef-tea. Up to that time nearly all his urine was passed involuntarily, but on the third day that symptom had finally disappeared. Although there was still some pain in the head, it was not then severe enough to prevent him sleeping and eating well. On the fifth day he had a bright, cheerful expression, was able to sit up in bed, and laughed and talked with other children in the ward. All pain was gone, and the wound gave so little discomfort that he appeared to have forgotten its existence. His general health was completely restored.

Progress of the Wound.—On Jan. 26 the lint had become stained with reddish serum. It was replaced by a fresh piece, dipped, like the first, in carbolised oil, after the scalp had been washed with the one-to-nineteen watery solution.

January 27.—Much less staining of the lint. Dressing removed, and wound examined under a stream of carbolic acid, dissolved in thirty-nine parts of water. The wound was depressed below the level of the adjoining skull, and was completely covered by a layer of firm coagulum. This covering was not disturbed. On it was laid a piece of Lister's carbolised shellac plaster, of a size to overlap the wound several inches in all directions. Over this came lint, dipped in carbolised oil, secured as before. The plaster was placed next the wound, as being less irritating than the oil, and less likely to soften and disintegrate the clot. Under this dressing, the latter became quickly converted into a hard, dry scab.

On January 30 no fluid had exuded from the wound for two days. When the plaster was raised, its under surface was quite dry. The stitches were not visible, being buried in the scab. Apparently the wound had healed.

With a view to ascertain if pus would subsequently form along the tracks of the stitches if the scab continued antiseptic, fresh lac plaster and carbolised oil were applied, and renewed at weekly intervals (the carbolised oil somewhat oftener), until March 1. During that time not a trace of pus could be seen, and at the end of it the scab and stitches dropped off in one piece, disclosing a firm, perfect scar. The stitches must have been set free from the living parts by an ulcerative process, yet their presence had occasioned so little irritation that no pus was produced—at least, no trace of it was visible to the naked eye. If fluid exudation did take place at all, there was not enough of it to moisten the dressing.

The height of the mercury in the axilla was observed morning and evening for twenty-five days. The highest point—100·6°—was reached thirty hours after the accident. A partial descent followed, but was succeeded at the end of the second day by a rise to 100·2°. On the fourth day it had sunk to 98·8°, and thereafter continued (with an exception which will be referred to) within normal limits. On the tenth day the carbolised oil had begun to irritate the skin below the occiput. The pressure of the bandage, which at that spot was constantly saturated by the oil, had caused an abrasion, from which granulations, moistened with pus, sprang. At the time of this occurrence—whether due to it or not is uncertain—the evening temperature on one occasion reached 100·2°. No other reason than this could be found to account for the change. Four months after the injury the boy continued to enjoy perfect health. No new bone had formed under the scar, to which visible pulsation was imparted by the subjacent brain.

ST. GEORGE'S HOSPITAL.

The following cases we observed in Dr. Ogle's practice:—

Enlarged Spleen; Ague; Hæmoptysis.—The patient was a man who had been long in India, and there had ague and cholera; since his return he had been subject to irregular attacks of ague, and on admission had the attacks almost every other day. During the cold stages he was apt to spit up a quantity of blood. The thermometer showed frequently that the temperature rose before the cold stage was past. The spleen was exceedingly large; but under the use of quinine this organ has diminished and the hæmoptysis decreased; also the ague attacks have become much rarer. The man has an umbilical hernia and excessive enlargement of the superficial veins of the chest and abdomen, the results, he says, of a gunshot, which struck him on the buckle of his waistbelt, but did not bruise the skin. At times some of these veins attain the size of the little finger. Dr. Ogle pointed out that the bleeding from the lungs was probably owing, in part, to the congestion of the inner organs which occurs in the cold stage of ague, and partly to the condition of the blood which often attends disease of the spleen and other ductless glands.

Slight Case of Typhoid Fever.—This case was interesting, as, at first, owing to dulness of upper part of one lung and the rose-coloured clubbed state of the finger nails, in the absence of any very marked symptoms of fever, the case was of doubtful character. Subsequently, spots appeared on the skin, but they were never more than seven or eight in number, and the stools became characteristic of enteric fever. The evening temperature was frequently, but by no means regularly, higher than that of the morning. Under the use of ammonia and wine, occasional turpentine fomentations, and subsequently mineral acids and infusion of orange, the man is making a good recovery.

Effusion into Pericardium, the result of Rheumatic Fever; Digitalis; Cupping.—The patient, a girl, aged 18, had been in the Hospital recently with rheumatic fever. She returned suffering from intense dyspnœa, very irregular and intermittent pulse, and anasarca of entire body; much blood was being passed in the urine; and in a day or two very great hæmoptysis, with all the physical signs of pulmonary hæmorrhage, occurred. There was evidently also much fluid in the pericardium. At one time death seemed imminent. Digitalis and stimulants were given, and on one occasion blood was taken by cupping from the back of the chest, with rapid and continued benefit. The patient is now walking about the ward, with a soft and regular pulse. There is barely a trace of albumen in the urine. She is making a good recovery under the use of iron and ordinary diet.

Universal Tremors; supposed Disease of the Heart, the Sounds of which were interfered with by Bruit of Pectoral Muscles.—The patient, a hard-working man of middle age, had been unable to work for several months, owing to constant agitation of all his limbs and of the muscles of the chest and abdomen, and tremors of the tongue, especially when trying to stop the movements. He had been told this was owing to disease of the heart. There seemed to be no organic disease of the brain or spinal cord, and the tremors could not be traced to the use of alcohol, tea, or coffee, or to mental emotion. Dr. Ogle looked upon the case as one requiring the use of valerian, shower-baths, etc. The heart's sounds were distinct; and there was no irregularity of its action, no bruit, and no increased area of dulness. But it proved very difficult to hear the heart sounds properly, owing to the rapid and constant vibratory action of the pectoral muscles, which caused a curious, well-marked, constant bruit musculaire. This, Dr. Ogle thought, had been mistaken for a cardiac bruit. The patient quickly got perfectly well, and went out quite free from any tremor.

We also saw a child, aged 12, with abscess of cervical glands following scarlet fever, who, in the course of his life, had had typhoid fever, chicken-pox, hooping-cough, measles, and again typhoid fever before the scarlet fever.

Also a case of a woman with constipation of fourteen days' standing, having had constant vomiting for ten days. Calomel and castor-oil and enemata were given without result, but after a few two-drachm doses of sulphate of magnesia the bowels became relieved, sickness ceased, and she is doing well.

Also the case of a tailor with pain and weakness of the legs and numbness of the fingers, in whom the muscles of the legs are much less contractile under the action of the interrupted galvanic current than the arms.

Also the case of a man with left dilated pupil, constant

pains in the head and left ear, with deafness of the same ear. Dr. Ogle suspects some intracranial tumour or deposit.

He also showed us two severe cases of emphysema and bronchitis, both at first treated by Dover's powder, squills, senega, and bark and counter-irritants. One is recovering under treatment adopted with reference to the suspicion of a gouty complication. The other case proved fatal, and after death the cavities of the right side of the heart were found very dilated.

He also pointed out the case of a man with acute rheumatic fever attended by a systolic bruit at the base of the heart. During convalescence not only the bruit but the *first sound itself* of the heart quite disappeared. It has now returned, but is very faint. Patient is doing well.

*** In our Reports of Hospital Practice we lately referred to three cases of excision of the hip under Mr. Simon's care at St. Thomas's Hospital. It should have been mentioned that none of these patients are favourable instances of the results of this operation, open sluggish fistulæ remaining in each case, with but little evidence of bony union. In the same article an ingenious modification of the splint used after excision of the knee was erroneously ascribed to Mr. Croft. The splint was really contrived by Mr. Elliott, who has charge of the Surgical apparatus of the Hospital.

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Medical Times and Gazette.

SATURDAY, DECEMBER 10, 1870.

"SQUAT LIKE A TOAD."

A curious sense of bewilderment has come over family folk with old-fashioned family notions and ways. They hear mysterious discussions as to the "limitation of families"; as to whether the French or American Malthusian system is the better; and as to what change in woman's social position, the laws of marriage and divorce, and other matters of social economy and morals, are best fitted to attain the desired ends. They are not aware (simple people!) that all these discussions aim at the propagation of a new gospel and a new system of sexual morals, of which Mr. J. S. Mill is the prophet and founder. It is finding its way into this country from the United States, where the American Malthusians, following Mr. Mill, have excelled the French with their two in a family, by limiting their families to one child. The means by which this end has been obtained are well known: they are the prevention of conception, and, failing that, the practice of abortion on high moral and æsthetic principles.

Mr. Mill's new morals are set forth in his "Principles of Political Economy," book ii., chapter 13, and its applications are shown in the writings of certain of his disciples. For the purposes of illustration, we select those of two Medical neophytes—the one a "gentleman," the other a "lady" Physician. The doctrines of the one are to be found in Dr. Charles R. Drysdale's letters in two of our Medical contemporaries; of the other in Dr. Elizabeth Blackwell's address on "How to keep a Household in Health," delivered before the Working Women's College, on the invitation of a philanthropic lady. This lady Doctor, according to her preliminary statement, is a most successful Physician. During sixteen years' practice, owing solely to her great skill, she has not had a single death of a "little one" from scarlet fever; and we may say, once for all, that, except as to Miss Elizabeth's doctrines referred to and this absurd boast, we have nothing but praise.

Mr. Mill's new system of morals is intended to be a "remedy for low wages"—low wages being a fatal disease of the body politic. The fundamental principle is the high moral duty of limiting the number of children in a family. Prudential considerations are not enough. "Even in France," he says, "what is practised as prudence is still not recognised as duty." Dr. Elizabeth Blackwell, faithful to the teachings of the prophet, says, in her address to the working women, "Another important point for parents to observe, in securing good constitutions for their children, is, not to burden the household (of which the mother is the centre) with more children than it can bear. The waste of human strength and life from neglect of this wise rule is fearful." There is a distressing vagueness, and something like a mystifying *double entendre*, in this "wise rule." Does the verb "to bear," in regard to the household, mean to support? and, in regard to its maternal "centre," to bring forth? Another passage proves, however, that the lady Physician has studied Mill. He says, quite promiscuously, in a footnote, "Little improvement can be expected in morality until the producing large families is regarded with the same feeling as drunkenness or any other physical excess." So, enforcing this lesson, the lady disciple, with touching pathos, says:—"It is sad to see how the precious boon of physical health is thoughtlessly squandered by most people. . . . You see the bright young woman, overburdened with child-bearing, grow peevish, fretful, impatient of daily duties; you see the strong man, injured by gin, grow brutal and cruel, lose his self-respect, and become the father of miserable offspring," etc.

Mr. Mill, seeing that his new doctrine of moral duty would have powerful auxiliaries in women, if they were but convinced of its value—for they then would urge the duty of limiting families, "if supported by the moral feelings of the community"—inquires how these advantages can be attained. There are two kinds of obstacles to be removed: the one is religious and moral, the other conventional, being due to a "spurious delicacy," which confounds right and wrong. "People are little aware," Mr. Mill remarks, "of the cost to mankind of this scrupulosity of speech." Hence the unscrupulous language of the gentleman disciple, to which we shall shortly refer, and hence, too, the clamour for mixed classes of male and female students by which the Medical Profession, and more especially the female members, may be demodested and made to speak without scruple. As to the other class of obstacles to the spread of his views, Mr. Mill honestly laments that "there is still in many minds a strong religious prejudice against the true doctrine." The Roman Catholic clergy, he complains, in especial, "everywhere think it their duty to promote marriage, in order to prevent fornication." The lady disciple touches gently, but clearly, upon this point, and, at the same time, improves upon Mr. Mill's views, which wholly ignore the sentiment of maternal love. "Now I do not consider," she remarked to the working women, "as is often stated, that the great object of marriage is to produce children; marriage has higher humanitary objects; but children are a precious privilege of marriage," etc. If she had not already compared child-bearing with drunkenness, the precious concession as to children would have had more weight.

We may here observe, in explanation, that the expression "as it is so often said," applies best to the "exhortation" in the marriage service of the Church of England, in which the persons about to be married are exhorted to duly consider the causes or ends for which matrimony was ordained. The first cause is, "the procreation of children, to be brought up in the fear and nurture of the Lord, and to the praise of His holy name;" the second, to prevent fornication; the third, and last, for mutual society, help, and comfort—*i.e.*, humanitary interests. Miss Elizabeth Blackwell thinks differently with Mr. Mill. Before dismissing the unmarried lady, we may observe that Mr. Mill aims at the cessation of the practice of reproduction by women in asserting their equal rights with man. In this way unmarried ladies will be able to live and have no families at all, while, at the same time, if they be Medical, they will be efficient auxiliaries, both by word and deed, in the propagation of the new moral.

Turning to the "gentleman" Physician and neophyte, Dr. Charles R. Drysdale, we find him him much less reticent than the lady Physician. He has, in truth, all that plainness—we may say unscrupulosity of speech—which Mr. Mill desiderates in his disciples. Paris is the Jerusalem of the Malthusian, and to Paris, therefore, Dr. Drysdale betakes himself for his holiday, to study the question practically. His chief lessons are derived from the doings of the Germans in France, and he writes home enthusiastically as to the facts. In particular, he quotes a passage from a French newspaper as to the cause of the military successes of the Germans, "which," he says, "I must confess, I think nearly hits the mark." It is this, "Like all that is born of damp, the German race spawns rapidly. A woman who has four children is accused of sterility. Germany infests the whole world. At London, the Prussians have invaded the city," etc. Dr. Drysdale adds his comments:—"These rapidly breeding and grasping tendencies of the Germans are certainly the weak point of that clever nation"—(the German soldiers averaging two inches more in height than the French). The weak points Dr. Drysdale attributes to "the deplorable ignorance" of political economy amongst "even the best men" of the German nation. The faults of the German system are that it renders the men and women both numerous and strong, and so capable of emigrating to "the already overstocked labour markets of England and elsewhere. . . . . In future," he adds prophetically, "there will doubtless be a strong sentiment against all nations which, like the Germans, tend by their rapid breeding to lower wages." In praise of the French Malthusians, Dr. Drysdale remarks:—"As a contrast to the spawning habits of the Germans, I may mention that a Parisian lady told me yesterday that, among her acquaintances in Paris, very few families had more than *one* or *two* children. No wonder that such prudent persons look with disgust on the emigrating and grasping tastes of the Prussians." Mr. Mill is not so strong in his denunciation of unlimited maternity as his disciple; he only hints that people who indulge in it are likely "to be in the habit of making light of social obligations generally." It appears to us that he and his disciple rather make darkness of the latter. The propaganda has partly succeeded, however, in the United States. In the large cities, married ladies not only think it bad taste to "breed" children, but see no harm in having their "shape let down" (the fashionable phrase) by abortion. The end of their moral system is not, however, attained. The ladies are martyrs to uterine disorders and their nervous consequences, and the increase of the native population is duly checked; but wages are not affected, simply because the Irish and Germans, knowing nothing of the new moral principles, go on "breeding and spawning."

But how as to the practical means for limiting families? Mr. Mill judiciously hints at them only. "When persons are once married," he remarks, "the idea, in this country, never seems to enter any one's mind that having or not having a family, or the number of which it shall consist, is wholly amenable to their own control." This lamentable ignorance is, as Mr. Mill intimates, only in this country; they manage these, like other things, better in France. But even there the limitation is not so perfect as it might be in motive, because carried out from prudential and not high moral consideration. Dr. Drysdale informs us as to an obstacle to this higher morality, which he has sedulously laboured to remove. "There are two points" he observes. . . . "I have often argued with clergymen of the Catholic church in France that they ought to change them. The first point is that the catholic clergy make it a mortal sin to restrain the number of a family by any means save that of abstinence. I think that this is quite a silly doctrine, and liable to alienate most men and women from the confessional." We will not dwell on the means discussed in the confessional further than to say that the means discovered by M. le Docteur Condom is the most moral of them all. No sexual vice, however revolting, need be omitted from a list of "means" which includes both abortion and infanticide. What will be the kind of practice of those Physicians who adopt the moral principles of Mr. J. S. Mill, we need not inquire, as the conclusion follows obviously from the facts. We need only say that, as it is considered alike infamous, Professionally, either to practise abortion for economical purposes, or to counsel how to gratify the sexual lusts according to moral and physiological laws so as to avoid conception, the new school is likely to have a lucrative monopoly of the necessary kind of practice. Indeed, they already have this in the United States; the fashionable abortionist of New York inhabits a luxurious palace, and an ingenious rival to M. le Docteur Condom there has realised a fortune by his invention. Probably, however, as these new Practitioners emerge more into the light, their moral principles will appear hideous enough to excite police cognizance. Milton seems to have had a prophetic vision of this day when he represented Satan—

> "Squat, like a toad, close to the ear of Eve,
> Assaying by his devilish art to reach
> The organs of her fancy."

His object was to raise in Eve's pure soul "distempered, discontented thoughts; vain hopes, vain aims, inordinate desires." The words of Zephon to Satan may not be wholly without application to him who wishes the women of England to adopt his new moral principles of love and duty—

> "That glory, then, when thou no more wast good,
> Departed from thee; and thou resemblest now
> Thy sin and place of doom, obscene and foul."

IN CORPORE VILI FIAT EXPERIMENTUM.

Dr. De Renzy, Sanitary Commissioner of the Punjaub, in his report of that province for the year 1869, strongly reaffirms his belief in the influence of a contaminated water-supply in the communication of cholera. On this point it is well known how widely the views of Dr. Bryden are at variance with those of Dr. De Renzy, and, indeed, of most other observers. We hope shortly to notice more fully several of the facts and statements with which Dr. De Renzy supports his opinions, and at present merely refer to the question in dispute in order to notice a remarkable suggestion which Dr. De Renzy rather hints at than actually submits for the consideration of the Government of India. It is to the effect that, as there are annually about two hundred convicts sentenced to death in the province of Bengal, the lives so forfeited might be utilised for the purpose of questioning nature by experiments on the living body as to doubtful points in physiology and pathology and the causation of disease. To such a proposal many objections would be urged, particularly by the opponents of vivisection of the lower animals. But in a matter of such vast interest to the human race as the mode of propagation and extension of cholera, if persons competent to form opinions on the subject should come to the conclusion that by certain well-devised experiments on the living human body definite information

would probably be obtained, the propriety of instituting such experiments becomes a question of paramount importance. Experiments have been already tried on the lower animals, the earliest having been by Magendie, in 1831, of injecting cholera blood into the veins of a dog, in quantities varying from one to eight ounces. The smaller quantity produced no effect, but the larger caused death by diarrhœa, and the condition of the intestines resembled that of persons dead in cholera collapse. Similar experiments, with varying results, were tried by Mr. Marshall, of University College Hospital, Dr. Jos. Meyer, Carl Schmidt, and others. Professor Carl Thiersch, of Munich, in 1854 tested the effects of allowing white mice to nibble filtering-paper steeped in cholera fluids of various sorts and at all stages of the disease, and then dried by exposure to the ordinary temperature of the air. These experiments were repeated by Dr. Burdon Sanderson in 1866, with results confirmatory of those arrived at by Thiersch—viz., that a considerable proportion of animals so treated died from a disease strongly resembling the cholera of the human subject in symptoms and post-mortem appearances. Dr. Sanderson's experiments on dogs gave no results; but, as Mr. Simon remarks, in his report for 1866, in which Dr. Sanderson's experiment's are published, the impotence of the agent against one sort of animal is no disproof of its virulence against other sorts; so that the solution of the question as to the susceptibility of human beings to the poison of cholera through their digestive, respiratory, or circulatory systems, is aided but little by experiments on the lower animals.

Mr. C. Macnamara, in his valuable "Treatise on Asiatic Cholera," feels the weight of this difficulty, and says that although we cannot experimentalise on our fellows with cholera-stuff, he is perfectly convinced that he, or any one else, could induce an outburst of cholera among a number of people in India, or in any other part of the world, in twenty-four hours, independently of soil, climate, or any other influence, by means of water contaminated by cholera dejecta. His opinion that it is during the vibrionic stage only of decomposition that cholera fluids possess their poisonous properties, and that they become harmless as soon as this stage has been passed through, could certainly be confirmed or disproved by well-directed experiments on convicts condemned to death, without the knowledge of the subjects, and without altering their condition in any respect, except the chance of death by cholera instead of its certainty by execution. Other modes of experiment, such as by the injection of cholera blood into the veins or subcutaneous cellular tissue, by injecting or inoculating the alvine liquid in the same way, or by introducing it into the stomach in varying quantities, could not be entered upon without a certain amount of pain to the individuals subjected to such proceedings, as also of unwillingness on the part of the experimenters; but still, with such a world-wide object in view, such considerations become comparatively trifling, and we think that Dr. De Renzy's suggestion calls for most serious consideration on the part of the Indian government and its Professional advisers.

GUNSHOT INJURIES OF THE HEAD.

No. II.

Having in the previous article alluded to instances in which bullets have lodged in the brain for considerable periods without producing fatal results, and having mentioned the opinion of Dr. Hamilton, of the United States army, that the longest period of such lodgment was in the case recorded by Langlet, in which eighteen months elapsed between the infliction of the injury and the death of the patient, it may be well to add that Mr. Longmore, in his paper in the second volume of "Holmes' System of Surgery," gives the particulars of the case of an officer whom he had attended in 1861, and whose history left little doubt that he was then suffering from the effects of a musket-ball lodged in the brain since the siege of Delhi in 1857. The bullet had entered through the posterior and inferior portion of the left parietal bone, the dura mater had been penetrated, and brain substance had escaped, and the opinion at the time was that the bullet had lodged deeply in the brain. The symptoms observed by Mr. Longmore were those of well-marked cerebral irritation, and the appearances of the opening in the parietal bone tended to confirm the opinion as to the bullet having penetrated and become lodged in the brain. The officer, however, by living in the most abstemious manner and by strict regimen, was enabled to discharge certain home military duties till the unusually hot summer of 1868, when he fell into a state of stupor, which gradually increased until he died. No post-mortem inspection was permitted.

Gunshot wounds of the head with depression of bone, but without lodgment of the projectile, are much more serious than cases of fracture with depression caused by instruments impelled solely by muscular force. The contusion of the external soft parts is so severe that the wound cannot close by the adhesive process, and the concussion of the whole skull and its contents is proportionally greater. During the Crimean campaign, such injuries in our army, when they occurred in a severe form, were invariably fatal. Of 76 recorded cases treated in Hospital, in which depression of bone only existed, without lodgment of the projectile, 55 proved fatal. In the 21 survivors, the amount of depression is described as having been slight, yet of these 12 were invalided, and only 9 returned to duty.

When the bullet lodges, there is often much difficulty in ascertaining its course. It generally passes on to a greater or less depth, but is sometimes caught and retained by the fragments of bone which it has broken. In such a case it may be found entire, though flattened; but more frequently it is either partially or wholly divided. A bullet seldom strikes the head in a line directly perpendicular to the point struck. It more frequently strikes slantingly, and, having produced fracture and depression, its course becomes deflected, and it impinges upon the jagged margin of the fixed portion of bone forming the upper boundary of the aperture at the seat of fracture. It may then become deeply grooved and retained—impaled as it were—or it may be divided into two parts, one being retained, and the other, being carried onwards, may either escape altogether, or may be caught between the scalp and outer surface of the cranium; the inner half, in like manner, may lodge between the cranium and dura mater, or, piercing the dura mater, may lodge in the cerebrum. The still more remarkable result may ensue, of part of the bullet making its way into the cavity of the cranium, without producing a hole in the skull, as in a case recorded by Mr. Longmore. A bullet had caused fissured fracture with slight depression; trephining was performed without any relief of symptoms, and the patient died on the same day. On post-mortem examination, half the bullet, presenting as smooth a surface as if it had been cut with a sharp knife, was found just above the orbital plate of the frontal bone, on the side in which the wound had been received; the other half escaped altogether. There was some splintering of the internal table, but no opening whatever existed in the skull, the depressed bone having either sprung back into its place, through its own elasticity, or having been pushed back by the resistance and countermovement of the brain from within. A preparation of the bone illustrating this remarkable injury is in the Army Medical Museum at Netley.

The more usual course, however, of a rifle-bullet at ordinary speed is that it passes entire through the membranes into the substance of the brain, carrying along with it splinters of bone. When it does not escape by a second opening it may sometimes lodge at a point directly opposite to that of entrance, but its course within the cranium is altogether uncertain. Hennen warns us that, before making an unguided search for balls

under such circumstances, we ought seriously to consider the injury which we may inflict, although he does not say that the attempt may not be cautiously made. Larrey, sen., was of opinion that it might be done with safety and effect, and records one case in which, with an elastic bougie, he traced a bullet along the longitudinal sinus, from the wound in the frontal sinus, to the occipital suture, where he trephined and removed it. The patient recovered.

Mr. Longmore's paper, to which we have so often referred, contains a full description of the principles by which military Surgeons of the present day are guided in the treatment of this class of injuries. It is of great importance to maintain the horizontal position in moving the patient from the field to the Hospital; the head should not be raised; all constriction of the chest and throat by the clothing should be avoided, the extremities should be covered, so as to retain the normal temperature; bleeding may generally be checked by a small pad and bandage, but occasionally the ligature of a patulous artery may be required. The head should be shaved, and the wound examined by the Surgeon as early as possible.

When contusion of the scalp alone exists, the swelling caused by ecchymosis should on no account be incised; an opening will take away all chance of the effused blood being absorbed. When suppuration occurs, an opening is unavoidable, but every effort should be made to avoid it at the outset. A light dressing, with lint and cooling lotions, retained with a very moderate amount of pressure by the six-tailed head bandage, will be better than the strong pressure recommended by some Continental Surgeons. Purgatives, low diet, and avoidance of all forms of excitement are essential parts of the treatment. The same principles apply when there is an open wound. If the bullet have burrowed beneath the scalp, the tunnel so made may with advantage be occasionally syringed with tepid water. Wounds with fracture, without marked depression, should be treated on the same general principles. "There are reasonable grounds for hoping that recovery may ensue, without having recourse to any Surgical interference beyond the local treatment already described.

The treatment of wounds with fracture and marked depression requires more particular consideration, and involves the question of the propriety of trephining in gunshot wounds. The preventive trephining, recommended by the older Surgeons, has been proved to be not only useless, but dangerous, and is now universally considered to be an inadmissible operation. The tendency of the experience in Europe, within the last fourteen or fifteen years, has been to confine the operation of trephining within very narrow limits.

Baron Larrey, in a paper on Trephining in Injuries of the Head, read before *La Société Impériale de Chirurgie*, in April and May, 1867, and published in the *Mémoires* of the Society, concludes, from the analysis of 160 cases of injuries of the head, that the operation of trephining, although of great value, should be reserved for well-defined cases, presenting fixed indications, and not undertaken with precipitation, or in doubtful conditions, at the risk of aggravating symptoms and hastening the fatal termination, whilst the prompt and rational application of other therapeutical resources may in the majority of instances aid the marvellous efforts of nature towards recovery from the most formidable injuries.

In summing up his conclusions on this important point of practice, Baron Larrey observes that the persistence of well localised or circumscribed results, and the failure of all other means of relief, are the two fundamental conditions which indicate the propriety of trephining in the following cases:—

1st. In fractures of the vault of the cranium, whether by perforation more or less deep, or with depression of fragments, when the tearing of the dura mater or injury of the brain produces grave and persistent symptoms, efforts at relief by other means having proved impossible or unsuccessful.

2nd. In fractures complicated with retention of foreign bodies or projectiles in the substance of the cranium, or with penetration of the superficial layers of the brain producing persistent symptoms, if extraction cannot be effected by any other means.

3rd. In the various mechanical injuries of the head complicated with serious and persistent cerebral phenomena, such as contusion or compression of the brain, or prolonged hemiplegia with effusion of blood or pus, presumed to be circumscribed, provided that the local lesion is precise, and provided especially that active therapeutic treatment shall have proved insufficient.

He considers trephining to be contraindicated, on the one hand, in necessarily fatal injuries, and, on the other, in all which may be presumed to be curable by other means; also in the following instances:—

1st. When a foreign body, having penetrated the cranium, is lost in the deeper portions of the brain, or is inaccessible to instruments.

2nd. If blood or pus effused within the cranium seem to have no connexion with the opening in the bone.

3rd. In every fracture, whatever its extent, uncomplicated with fixed depression of bone or prolonged phenomena of compression or paralysis.

4th. In cerebral commotion or more or less profound coma, with or without a local lesion.

5th. In the transient, indeterminate, or epileptiform convulsions susceptible of cure.

6th. When general inflammation of the brain or its membranes is sufficiently well marked.

In the Surgical report of the Crimean war it is stated that the trephine was only successfully employed in four cases during the whole war. There were only three cases of recovery after elevation of depressed bone; in two the fragments had been raised by the elevator, and in one by the aid of Hey's saw. In these seven cases the dura mater was known to have been uninjured in four; in one it was torn and brain protruded, and in two its condition was not recorded. In none of the cases was the injury caused by such violent means as the stroke of a rifle-ball.

It is stated by Dr. Scrive that during the same war trephining in the French army was in most cases fatal in its results.

Stromeyer, although in the early part of his career an advocate for trephining in complicated fractures of the skull, has since abandoned the practice, and trusts entirely to antiphlogistic measures.

The experience of the results of trephining during the late American war was more successful, and has a tendency again to unsettle our notions on the subject. In 107 terminated cases in which the operation was performed, 60 died and 47 recovered—nearly 44 per cent. of recoveries. In 114 cases, fragments of bone or of foreign substances were removed by the elevator or forceps, and of these 61 died and 53 recovered—or more than 46 per cent. of recoveries. With reference to this unusual amount of success, Mr. Longmore remarks that deductions must be withheld until the Medical and Surgical history of the war is complete. He also suggests that while latterly European military Surgeons have employed the trephine only in cases otherwise hopeless, the Americans may perhaps have used it with less hesitation in ordinary cases of depressed fracture. In the Netley Museum there are several preparations showing extensive depressed fracture of the inner table of the skull, taken from patients who had recovered without trephining, and who died years afterwards from other causes. Only one, however, has a clear history that the fracture resulted from gunshot.

Pending fuller elucidation of the recent experience in the United States, the conclusions of Professor Longmore, as to the indications for and against trephining, coincide in all essential particulars with those of Baron Larrey, as detailed above.

THE WEEK.

TOPICS OF THE DAY.

At the meeting of the Committees of the Royal Colleges of Physicians and Surgeons which took place on Friday last week, a resolution was passed that the Apothecaries' Society should be invited to join the Colleges of Physicians and Surgeons in the formation of a conjoint Board for the Examination and Licensing of Practitioners in Medicine, Surgery, and Midwifery. If this resolution be carried into effect, and such a Board be established by the three Corporations, we have no hesitation in asserting that it will be the most practical and real piece of Medical reform—as far as England is concerned—which has been effected since the passing of the Act of 1815, when first it was made necessary that those who undertake the care of the lives and health of the community should have special qualifications for their work. We heartily rejoice, therefore, at the good feeling which seems to prevail between the three principal examining bodies in the kingdom, and can only hope that there will be no further obstacles to their mutual co-operation for the object they have in view—an object which we hold to be a most valuable instalment of Medical reform.

It will be seen, however, that the recommendation of the General Medical Council—that all the examining bodies in one division of the kingdom should combine to form an examination for the licence to practice—is not yet adopted in its entirety. We do not know what the final determination of the Corporations may be on the question of securing the co-operation of the Universities. From a general point of view, there can be no doubt that the presence of assessors or examiners from the Universities at the meetings of the conjoint Board would be a clear advantage on the ground of uniformity, and we should gladly see this part of the original scheme carried into effect. But if the Universities are to have such a share in the national examinations in Medicine, they at least must be prepared to forgo the right of conferring Medical degrees, unless it be, indeed, purely *honoris causâ*, on persons who have not obtained the national licence, otherwise there will be no practical uniformity, and the one portal system will be as far off as ever. This was one of the rocks on which the Medical Bill of last session split, and the difficulty remains. If the examination be as good as the Medical authorities can make it—and we have every reason to believe that it will be so—the Universities should be glad to submit their graduates to so thorough and practical a test. At least we think they cannot fairly complain if they are not allowed to take part in the work or honour of an examination at which they will not present their own students. The one portal system allows no exceptions. We have always advocated it, and should gladly see all the Medical authorities heartily and unreservedly joining in the formation of a conjoint Board, before which all candidates for admission to the Medical Profession (whether Physicians, Surgeons, General Practitioners, or University graduates) should be bound to appear. But failing this, we can thoroughly appreciate the good that must result from a combination of the three great Medical examining bodies of England for the purpose of testing and licensing Practitioners in all the practical departments of the Medical Profession. We think, however, that another effort should be made to carry into effect the original scheme of a general combination, the more so as this was undoubtedly the object aimed at by the vote of the Fellows of the Royal College of Physicians at the last Comitia. At the same time, unless the Universities yield on the question of their own graduates, we cannot expect such an effort to succeed.

An unusually large attendance at the meeting of the Pathological Society, on Tuesday, was attracted by Dr. Liebreich's demonstration with his clinical ophthalmoscope, and Dr. McCormac's exhibition of numerous gunshot fractures from Sedan. Dr. Liebreich's demonstration of the healthy and diseased conditions of the fundus oculi left nothing to be desired. Unfortunately, however, the arrangements of the Society's rooms, which were those for an ordinary meeting, were ill-calculated for the success of an ophthalmological demonstration. The demonstration was commenced in the ordinary meeting-room of the Society, and was proceeding, when a member, Mr. Christopher Heath, reminded the President that, by a law of the Society, no living patient could be exhibited in the ordinary meeting-room. As a consequence, the learned German Professor, with his apparatus, patients, and a large following of members, migrated into the tea-room, where the demonstration was continued under difficulties. We would suggest to the Society the propriety of adding to its list of officers, at the next annual meeting, a Ceremoniarius.

We have received a copy of suggestions as to Medical legislation, which have been agreed on at a conference of representatives appointed by Trinity College, Dublin, the Senate of the Queen's University, the King and Queen's College of Physicians, and the Royal College of Surgeons in Ireland. The suggestions are to the effect that all existing Universities and Medical Corporations should continue to grant their degrees and licences as heretofore; that, however, there shall be a general Examining Board for the three kingdoms, by which every Medical man shall be examined before registration; that this Board shall be a travelling one, visiting in turn England, Scotland, and Ireland; that the candidates should pay no fee on examination, but that all the expenses of the travelling Board of Examiners shall be defrayed by the State. We hear, however, that these suggestions do not command general assent, even in Ireland. In England we think they will be regarded as simply Utopian.

In consequence of the enlargement of Charing-cross Hospital, Dr. Julius Pollock and Mr. Hird have been advanced respectively to the posts of Physician and Surgeon "with care of in-patients." In consequence of these changes there will be shortly declared vacancies for an additional Assistant-Physician and Assistant-Surgeon.

FUNERALS.

A LETTER to the *Times* this week complains of the length of the funeral service of the Church of England, and of the danger which the attendants incur from standing so long uncovered on cold, damp ground. There is no Medical Practitioner who will not vouch for the reality of this grievance. Only a few days ago a patient was complaining to a Medical friend that he had caught a most bitter cold at Kensal-green; but in this case the Church was not in fault. The blame was laid on a Dissenting minister, who had the indiscretion to detain the mourners with a long extempore discourse in the chapel and another at the grave. There are really few things more dangerous for delicate people at this time of the year than funerals, and as Medical men are often the victims, we feel it not out of our place to say a few words on the subject. Most of the arrangements for modern funerals are so many ghosts of bygone days, shadows that linger long after the substance has departed. The religious rites at funerals are either public or private. If public, it is necessary that the body be taken to some public church, there to be presented for the last time before the friends, relatives, and fellow-parishioners of the deceased before it is deposited in its last home. If private, if confined to a small circle of friends and relatives only, there is no reason why the exhortations, lessons, and prayers should not be said at the house, and then the mourners would be detained a very short time at the grave. If a few people hear a short service, from which all the world are excluded, what is the use of doing this in a cemetery chapel—a mongrel sort of building—a church without an altar?

We may add that it is much to be desired that the public, social, or parochial element in funerals should be kept up; and

that every facility should be given to persons desirous of showing their regard for the deceased and their sympathy with his family. This could be done if part of the funeral rites were performed at the parish church, and if public notification were given of the time and place. This is the custom on the Continent and in America; friends are invited by a newspaper announcement to meet at such and such a church. As to whether they shall join the *cortège* from the house to the church, or accompany it from the church to the cemetery, would then be matter of choice. The substantial advantage would be that a large number of persons would be able to join in a charitable and religious office, and that the absurd paraphernalia of the funeral procession might be curtailed, and the danger to health from the chill dews of Kensal-green be abolished.

THE ANGLO-AMERICAN AND ENGLISH AMBULANCES IN FRANCE.

THE special correspondent of the *Daily News*, writing from Orleans on the 29th ult., mentions that the Anglo-American Ambulance, under Dr. Pratt, was in Orleans during the Prussian occupation, and remained there with its wounded when the French retook the place. It has one of the best houses in the town for its staff, and a magnificent Gothic church for its Hospital, capable of containing hundreds of beds. The obstructive influences of the French *intendance* have been much felt by the ambulance of the English Society. This ambulance provides beds, bedding, clothing, medicines—everything, in short, except food; but the French *intendance* makes the greatest difficulty in allowing rations for the wounded, and positively refuses to allow them for the staff, for which the Prussians gave *carte blanche*. It is satisfactory to hear that, notwithstanding such difficulties, this ambulance has been more successful than any of the others in treatment of the wounded, and has received greater numbers. At Amiens, the apathy of the inhabitants as to the relief of the French wounded has been the subject of indignant comment from many correspondents. The townspeople have, however, at last commenced to do something for their hundreds of wounded, but much has been left to the London International Society, which has given substantial succour in food, clothing, and medicines to over 700 French soldiers. Doctors Goodenough and Leslie are said to have rendered most distinguished service. The latter gentleman has had a serious illness, brought on by over-work, but is recovering satisfactorily.

BROMAL HYDRATE.

THE discovery of the peculiar effects of chloral hydrate (it is worthy of note that this is the first drug popularly known by the new chemical notation nomenclature) stimulated inquiry into the effects of the corresponding bromine compound, and results have been published by Dr. Steinauer, in Virchow's *Archiv*, and Dr. Dougall, in the *Glasgow Medical Journal*. The results are interesting, but only what might have been expected: the bromine asserts its intense acrid and irritating effects, which, indeed, are the most noteworthy of the phenomena of this so-called bromal. Here are some of Dr. Dougall's conclusions:—

"The results of my experiments agree, with those of Dr. Steinauer, in the following respects:—That the symptoms produced by the administration of hydrate of bromal are restlessness, imperfect sleep, dyspnœa, orthopnœa, salivation, and, in fatal doses, convulsions. That the simultaneous injection, hypodermically, of an alkali with the bromal hydrate, neutralises the restlessness, &c. That all the above symptoms are caused by the action of the bromal aldehyde itself, *i.e.*, by bromal, which is alcohol dehydrogenated by bromine. Our results disagree as follows:—That while it appears theoretically possible to produce hypnosis and anæsthesia with bromal hydrate, it seems to me practically impossible, from its intense irritancy and the large dose which would be necessary, to evolve bromoform sufficient to induce these conditions. I am therefore inclined to doubt the genuineness of the hypnosis and anæsthesia described by Steinauer."

DR. DAVIS, OF BARBADOES.

THE name of this gentleman deserves to be handed down to posterity with all the honours which devotion and self-sacrifice in the cause of suffering humanity can command. Having devoted himself to the relief of the suffering peasantry in the north-east of France, he displayed great energy in establishing soup-kitchens and in attending on the sick and wounded. He unfortunately overworked himself, and having contracted small-pox during his visit to one of the military Hospitals at Sédan, he sank under the disease. His remains were followed to the grave by large crowds of the peasantry in whose cause he had yielded up his life, and among whom he was known as "*le bon docteur noir*." A funeral oration was delivered over his grave by M. Philipoteau, the Mayor of Sedan, and the ceremony was attended by French, Germans, and English. Dr. Davis was a native of Barbadoes. He took out his degree of M.D. with high honours at Aberdeen, and was only 28 years old.

FROM ABROAD.—ANNIVERSARY OF THE BRUSSELS UNIVERSITY—SYPHILIS OF THE NERVOUS SYSTEM.

THE University of Brussels, on November 19, celebrated its anniversary (the thirty-sixth) with more than usual manifestations. Established in 1834 by the liberal party, having Verhaegen at its head, its foundation formed a grand centre of union for men of all shades of liberal opinion who were opposed to priestly interference and intolerance, and it has ever since been acquiring increased importance, both at home and abroad. Its main object has been to secure the unfettered cultivation of science, and the marked success with which it has succeeded has been matter of congratulation at each anniversary. Additional strength has been imparted to the present anniversary by the perilous position in which the country is felt to be—not only in consequence of the foreign complications which menace it, but also from the reactionist party now in power being well known to entertain hostile intentions towards it, which it is expected will soon be displayed in attempts at legislation with a view to cripple its present freedom of action. In the address delivered at the banquet by the Administrative Inspector, M. Van Schoor, he dwelt upon the immense service the University had done to the cause of liberty and progress, of which it constitutes a principal stronghold, and also upon the munificence and political perspicacity of the City of Brussels in supporting a "free university," which, while it contributed powerfully to the progress of science, would be able to resist the efforts of the reactionary party now brought into power. To an eulogium which he passed on the Professorial body, the Rector replied:—

"I must make the confession, although it may wound the modesty of my colleagues, that I think the Professorial body well deserves the praises that have been bestowed on it. All its efforts have been directed towards raising the level of the studies. It is true that these efforts have too often remained sterile; but then what obstacles they have had to contend with!—the indifference of public opinion, the materialistic tendencies of our epoch, and vicious legislation. It has been truly said that the University Professors in Germany are a power in the State; but with us, what are they—what consideration do they enjoy, and what value is attached to their labours? Nevertheless, in spite of these obstacles, this disdain and neglect, and in spite of the reactionary laws which are about to defer the destinies of our country to ignorance and incapacity, the Professorial body will not give way. Even if it has to labour without the hopes of success, still it will persevere. No weakness is to be feared in our ranks, and I can guarantee the firm resolution of all my colleagues to continue that march on the road of progress which the University has traversed during thirty-six years."

Dr. Keyes read, in October last, a very interesting paper on "Syphilis of the Nervous System" to the New York Medical Journal Association, which is reported at full length in the number of the journal for November. Fully acquainted with what has been heretofore done on this subject, chiefly in France, the object of Dr. Keyes has been to bring into more

prominent notice certain important practical points in relation to diagnosis and treatment, which he does not think have had sufficient attention paid to them. To this end he has utilised thirty-four cases which he has seen in Dr. Van Buren's practice or his own—all of these, indeed, being cases in private practice, almost all the patients being still alive and accessible, so that their actual condition may be ascertained. Many of the cases presented several nervous symptoms due to syphilis, at the same or at different times. Classified according to their most prominent symptoms, there were 14 cases of hemiplegia, 9 of paraplegia, 4 of epilepsy, 2 of facial paralysis, 1 of paralysis of the biceps and deltoid, and 4 of intellectual derangement. The results at the date of the preparation of the paper were as follows:—Recovery, 11; arrest of the disease, the patients being able to follow their business, 5; still under treatment, and doing well, 5; dead, 7; results unknown, 6. The particulars of all these cases are succinctly related, and various points deducible from their consideration compared with those derivable from the works which have been published on the subject.

On the subject of treatment, Dr. Keyes observes that some of the nervous, like many of the other symptoms of syphilis, have been known exceptionally to disappear without treatment, and the patient to suffer no relapse. As a general rule, however, unless treatment be resorted to, relapse takes place and the symptoms become progressively more severe—which, indeed, they sometimes do, in inveterate cases, in spite of seemingly well directed treatment. The rule of giving mercury early in syphilis and iodide of potassium late, like other good rules, has its exceptions. Many cases of nervous syphilis were successfully treated by mercury prior to the introduction of the iodide; but this has proved itself the remedy *par excellence*, sometimes producing excellent results in cases apparently desperate. The maximum of the dose of this substance can scarcely be determined, except by the disappearance of the symptoms; and Dr. Keyes relates an inveterate case in which relapse after relapse occurred, in which two drachms were given four times a day. In aggravated cases we may begin with twenty to thirty grains of the iodide every four or five hours. Iodism is not to be feared, acne (which is very bearable) being usually the only ill result of such doses. Mercury often is used with advantage to assist the treatment in chronic cases, when improvement ceases after a certain time, and then the substitution of mercurial vapour-baths or inunction for the iodine will cause the symptoms to make favourable progress; or a little mercury may be added to the iodic treatment. In the great majority of cases it should not be pushed to salivation. When the gums are slightly touched, ptyalism should be kept off by every possible means while continuing the mercury. The stomach requires watching during the treatment, which will have to be prolonged for months after the disappearance of the symptoms, varying according to the severity of the attack and the disposition to relapse. Tonics and cod-liver oil are often of great importance, while proper food, regularity of habits, and fresh air are sometimes essential to the success of specific treatment. Sometimes, the cachexia is so marked that, unless the nervous symptoms are threatening and progressive, the specific treatment cannot be judiciously commenced until tonics and country air have, to a certain point, renovated the patient.

The following are Dr. Keyes' general conclusions:—

"1. That nervous symptoms depending on syphilis may arise within the first few weeks after an infecting chancre, or at any period later during the life of the individual. 2. It is presumable, from the study of published autopsies, that the earlier a nervous symptom occurs, the less likely is there to be any material lesion which an autopsy can reveal; and that, in a given case, there exists no constancy of relation between the nature, the situation, and the severity of the lesion, and the nature, situation, and severity of the nervous symptom to which that lesion may give rise. 3. That cerebral congestion is probably the pathology of many of the earlier nervous syphilitic symptoms. 4. That syphilitic hemiplegia occurs, as a rule, without the loss of consciousness, even when the attack is sudden; but that the paralysis usually comes on gradually, the patient being under 40 years of age, and having had fixed, constant headache for some time before the attack. 5. Mydriasis existing alone, or with other nervous symptoms, without positive disease of the eye, is presumptive evidence of syphilis. 6. Paralyses of a single muscle or sets of muscles are frequently syphilitic. 7. Syphilitic paraplegia generally comes on gradually, often without any local symptom to call the patient's attention to the injured portion of the cord, and is rarely complete. The bladder almost always suffers more or less, and calls for special local treatment. Paraplegia may be developed as a symptom of inherited syphilis. 8. Syphilitic epilepsy usually occurs after the age of 30, in patients who have not had epilepsy in early life. Headache is liable to precede the attack. The convulsions occur often, many in quick succession, the intermission between the series of attacks being comparatively long; but during this period headache and the nervous symptoms exist and become aggravated, contrary to what obtains in idiopathic epilepsy. Syphilitic epilepsy is liable to be associated with, or followed by, some form of paralysis. 9. Aphasia is often associated with the intellectual disturbances caused by syphilis. 10. Loss of memory is a common nervous symptom of syphilis, as also all forms of mental disturbance, from mild hallucinations and illusions to actual insanity) and all these without any necessarily accompanying paralysis. 11. Inordinate emotional expressions are often associated with the mental weakness caused by syphilis. 12. Care must be taken to distinguish certain symptoms caused by gout from the same symptoms owing their origin to syphilis. 13. The prognosis is better, as a rule, for nervous symptoms caused by syphilis than for the same symptoms depending on a lesion, equal in extent, caused by another malady of the nervous centres. But, after the arrest of the disease, an indelible impression is often left upon the nerve tissue, which manifests itself by impaired function, and which treatment cannot overcome. 14. The iodide of potassium, pushed rapidly to toleration, unless the symptoms subside before that point is reached, is the main outline of treatment. Mercury, used at the same time, or alternated with it, is often of great value in protracted or inveterate cases."

FOURTH ANNIVERSARY SESSION OF THE ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

The fourth anniversary session of this Association opened on Friday last at the Freemason's Tavern, Dr. Richardson, F.R.S., President, in the chair. The minutes of the previous meeting having been read by Dr. Bloxam—who, in the unavoidable absence of Dr. Sedgwick, acted as Honorary Secretary—were confirmed; several new members, associates, and honorary members were elected, amongst others Professor Baynes, of St. Andrews, and the Right Rev. the Lord Bishop of Madagascar.

Election of Officers and Council.

The following were elected officers for 1871:—*President:* Dr. Day, Stafford. *Vice-Presidents:* Dr. Black, Chesterfield; Dr. Crisp, London; Dr. Cholmeley, London; Dr. Lockhart Robertson, London; Dr. Seaton, Sunbury; Dr. Wynn Williams, London. *President of the Council:* Dr. Richardson, F.R.S., London. *Council:* Dr. Thos. Ballard, London; Dr. Geo. Bird, London; Dr. Bloxam, London; Dr. Brewer, M.P., London; Dr. Gage Brown, London; Dr. Buchanan, Glasgow; Dr. Butler, Winchester; Dr. Lockhart Clarke, F.R.S., London; Dr. Cleveland, London; Dr. Cooke, London; Dr. Barnard Davis, F.R.S., Shelton; Dr. W. H. Day, London; Dr. Dudfield, London; Dr. Gordon, C.B., Portsmouth; Dr. Day-Goss, London; Dr. Griffith, Camberwell; Dr. Wharton Hood, London; Dr. Jencken, Dublin; Dr. Keiller, Edinburgh; Dr. Lindsay, Hanwell; Dr. Lush, M.P., Salisbury; Dr. MacEwen, Chester; Dr. Morris, Spalding; Dr. Nicholls, Chelmsford; Dr. O'Connor, London; Dr. Lloyd Roberts, Manchester; Dr. Rogers, London; Dr. Ross, London; Dr. Royston, London; Dr. Temple, London; Dr. Stedman, Guildford. *Hon. Treasurer:* Dr. Paul, Camberwell. *Hon. Secretary:* Dr. Sedgwick, London. *Auditors:* Dr. Humby, London; Dr. Samuel Hill, London; Dr. Painter, London.

Report of the Council.

The Report of the Council, after congratulating the members

on the flourishing condition of the Association, proceeded as follows:—

"The proposed modifications of the regulations of the University of St. Andrews, which had received the sanction of the Association, were in due course brought before the University Court by the Assessor of the General Council, Dr. Richardson, F.R.S.; and after having been submitted to, and approved by, the Senatus Academicus, were accepted by the University Court. These regulations have been sanctioned by the Chancellor of the University, His Grace the Duke of Argyll, and now only await the consent of the Queen in Council before they become valid.

"Your Council, believing that the educational advantages of the University of St. Andrews were very little known generally, have sanctioned the issue of a reprint of the article entitled 'Education and Graduation at the University of St. Andrews,' in the third volume of the *Transactions* of the Association. They hope that this account of the opportunities offered by the University for a sound and extended education in all the subjects needed for degrees in Arts and Theology will be a means of adding to the number of those who will avail themselves of its privileges; and that a consideration of the 'Schemes of Study,' which set forth a plan whereby the Degree of Master of Arts may be obtained, and at the same time one year of Medical study be counted, may induce many members of the Association to give to those of their children who are to be of the new generation in Physic the great preparation for their lifework which they would have made when after a teaching as deep in its foundations as it is wide in its embrace, and an examination as searching in its mode as it is honest in its end, they had received from our ancient and learned University her testimony of their knowledge.

"Your Council have again to ask you to consider the very important subject of the mode of taking Medical testimony in persons accused of crimes and supposed to be insane. This is, in truth, part only of a great question which is fast ripening for a satisfactory solution—the mode, namely, of taking Medical evidence generally in courts of law."

The report then relates the steps taken by the Council to induce the Government to omit clause 20 from the Medical Bill (the clause empowering universities to grant degrees without examination), and also their efforts in favour of Dr. Brady's Bill for a means of providing retiring allowances for Poor-law Medical Officers. The report concluded:—

"The termination of the occupancy of the President's chair by Dr. Richardson, F.R.S., cannot pass unnoticed by your Council. His world-wide scientific fame, his energetic devotion to the reputation of the University of St. Andrews, and his watchful and ever-ready care of the interests of his brother graduates, have combined to render his four years' tenure of office as honourable to the Association as it has been beneficial to the Doctors of Medicine of St. Andrews. The large number of the members of the Association, and the unity and good feeling which have ever characterised their sessions; the successful fight for the University and the Parliamentary franchise, by which, for the first time, the Doctors of Medicine of St. Andrews became a real part of their University, powerful in its councils and jealous of its honour; the abolition of that regulation limiting the annual number of Medical graduates to ten, by which St. Andrews was starved, as it were, to the very lowest point compatible with existence, and the re-opening, as far as the authorities can do it, of the University to all who are able to pass its fair, and practical, and searching examinations; these will ever remain proofs positive of the need of this Association, vindications complete of the manner of its working, and memorials telling of the wise guidance of its first President."

The report was unanimously adopted.

Amendment of the Law in Relation to Medical Evidence in Cases of Criminal Insanity.

Dr. Seaton moved, and Dr. Tripe seconded, a resolution authorising the Council of the Association to reconsider the best methods for obtaining a revision of the laws of the kingdom on the question of Medical evidence in cases of criminal insanity. The resolution was unanimously adopted.

Defects of Sanitary Acts.

Dr. Whitmore read a very able paper on the Defects of the Sanitary Laws, to which we hope on an early occasion to devote a special column.

Drs. Tripe, Swete (of Weston-super-Mare), Crisp, Bloxam, Wynn Williams, Mr. Lord, and the President, took part in the discussion, and letters were read from Dr. Tanner and other members. A vote of thanks to Dr. Whitmore for his paper, and to the President, Honorary Secretary, and Honorary Treasurer, for their labours in the past year, brought the first meeting to a conclusion, the other papers on the list being accepted as read.

The President's Anniversary Address.

The second meeting was held on Saturday, at 5 p.m., when the President, Dr. Richardson, gave an address. There was a large attendance of members of the Profession and of others distinguished in art, literature, the law, politics. The address was entitled, "For the Future of Physic." We subjoin the following extracts:—

Fellow Graduates,—Indulging one day in a luxurious day-dream by the sea-side, during the late autumn, it came to me that it would be a pleasing and a useful task to devote occasional hours to the construction of a history of the science of medicine of the Victorian era. It might, it seemed to me, be good, in this labour, to write of the men who, moving actively amongst us at home and abroad, were worthy the pen of the honest historian. It might, it seemed to me, be well to narrate the natural history of the diseases we see now around us in our daily tasks, that they who come after us may know with what we had to contend, and may compare our present practice with their own. It might, it seemed to me, be well to describe the means we have of curing disease, the extensions, the limitations of our science and our art, that they who are to come may measure faithfully the course and progress of curative art, from this epoch, to theirs. So vividly did the scope and character of this work appear before me in the vision of the day of which I have spoken, that, even to minuteness of its detail, the plan was fixed in the mind; and since then I have found the labour of carrying it out a natural and agreeable pursuit, the which, if I live to accomplish it, will perchance yield a work likely to live long when I am dead.

As I have thus been writing of the past and present, a vista has often opened of the future of Medicine; of the courses which Medical science will take under the influence of changes of thought respecting the physical forces of the universe; of the new bases of the science, and of the perfections that will spring up on them; of the greater knowledge of life and functions of life; of the more certain modes of preventing and of curing disease. Thereupon I have been led to ask what can we, who now exist, do for the future? What are we doing for it? Are we doing the best we can for it, or can we amend? In these contemplations I have found and founded the subject of the present discourse: and as this is the last discourse I shall have to deliver to you, as your President, the subject is in unison with the occasion on which it is pronounced.

The Present.

At first sight, the position of the present, from which we start, is neither assuring nor promising. A severe critic, with no intention of untruth, might say of us, that we live and breathe on uncertainty; that socially we appear to dabble with questions of legislation, without either teaching or influencing the legislator; that we appear to trust to Government protection for the right to apply our skill, and, instead of aiming to cast away the oppressive shield it loans to us at bitter interest, are ever wailing for the shield to be made stronger and heavier; that we appear to rise to practice on the paper wings of advertised emptiness, filling the sheet, not with painful touch of scientific industry and unsparing fact, but with the egotism of belief that each of us has done what others have not done, and cannot do, though they religiously strive to follow our lead; that scientifically we appear incoherent and chaotic, and, like all chaoses, jarring, without reason, overproud of what we really do, blind to the thousand failures of what we attempt to do, and deaf to the demand that we must do more or be trusted less.

But when our present position is surveyed fairly, it is not so severely bad, perhaps, as it seems—the fact being that our life is of the day-book rather than of the ledger, containing many accounts which, when they are posted up, are truly worthless enough, but yet containing a result anything but contemptible for one age to present to the ages to come. Be it my duty herefrom to indicate a leaf or two that may be torn out wisely; a leaf or two that may be revised wisely; a leaf or two that may be elaborated wisely, before our book passes into that unknown, when it is ours no longer, either to cast up, tear up, revise, or preserve.

Leaves, Political and Rotten.

If we begin with what may be torn up, we discover first a heap of mouldy leaves, supposed to contain some hidden virtue for making us powerful and respectable, but chiefly powerful in the world. They are docketed as papers between the Profession and the State, and they consist of some great number of

imbecile Acts of Parliament, each one opening with the declaration that it shuts up the last, and proceeding to prove incontrovertibly that it does no such thing. As far as I can divine, these papers have cost us more trouble, more money, more worry, during the present century, than all our scientific and practical work since we became a profession. For the purpose of cultivating these leaves, or for preparing the soil for them, great voluntary organisations have been instituted during the era, which bodies, in one way or another, in eating, drinking, travelling, speaking, organising, disorganising, quarrelling, fraternising, writing, advertising, and printing, have, within Her Majesty's reign, disgorged themselves of not less than one quarter of a million of Her Majesty's portraits in sovereign gold; while another legal organisation, more compact, much more practical, for itself, and much more determinate, has skilfully extracted by and for these same leaves some tens of thousands more.

As to the leaves themselves, they have simply taken from us that patience of steady endeavour which trusts for the development of the most natural of sciences on the pure development of natural knowledge. They have produced among us separation of interests and galling, unbrotherly bonds; they have drawn our men of genius for natural research, from the noblest to the commonest work. They have made us meanly powerless in the State, leading us to tell that august phantasmagoria, as it dissolves before us from time to time, and comes out again in new figures and colours, that were it not for its influence in our behalf we were at the top of the Fools' Calendar: we who hold the issues of life and death daily in our hands; we on whose looks broken-hearted men and women list for hope; we who have for our field of thought, not the State, but those human soul-parts that make the State—the very primitives, the brain, the muscle, the bone, the sinew, the heart, of the statesman! We fools but for the State! 'Tis a joke: yet no joke while there remains to insult us the mass we see, of statesman's acts thrown off by him when he is worn out with other work and is empty as a drum, because, poor man, he cannot evade our importune demands, but must give us something, though it be dry bones the dogs might reject.

In suggesting, as I have suggested, the complete isolation of Medicine from the trammels of bad legislation, I refer to the separation of the science only. Of those relations which co-exist between the State as the employer, and the Professional employed, I do not say a word. For special services rendered a claim is demanded that shall be worthy of the labour and skill of the servant, and here such simple and proper understandings should naturally exist between the State and the Medical man as exist between the private individual and the Medical attendant. We need tear up no such compact. The leaves to be destroyed are exclusively those that make the State a false protection between ourselves and the people; that keep up perpetual fermentation for what is called new Medical reform; that entice us from our pure and single work of healing the sick, to distrusts and contentions within our ranks; that lead to the existence, and sustain the existence, of rival boards having rival powers and privileges; that induce us to make endless, wearing, and useless efforts to put down quacks and schismatics by power of law, as against power of knowledge; and that foster a stubborn belief in our security, as a class, which crumbles to the dust whenever it comes in contact with the stern realities of life, with the sympathies, the fears, the superstitions, the prejudices, that make up the soul of human kind.

Revision of Medical Nomenclature.

To begin here with simple things, the first act required for the future of Physic is, the simplification of the language in which we Professionally communicate with ourselves and with the world. We complain often that the world is ignorant, because it does not comprehend our learned speech. The wonder truly is how the world tolerates us at all in this respect, or gives us patient hearing; and there is a greater wonder still, how we ourselves manage to master the terms we use so glibly. Certainly we are forced to devote more brain-work for the acquisition of mere useless terms, than for all the practical facts we know and can put together. . . . .

For the future of Medicine it seems to me, as my own wearied mind recalls how much I have been forced uselessly to learn and relearn, that we want a complete revision of our nomenclature in every department, and that any man, or any society of men, or any council of many societies, that should set itself to work, in ever so small a way, to bring into use a simple and reasonable scientific language, would do the most important service in physic that ever fell to the lot of man to perform. A manual of anatomy compiled on reformation of language would be the best beginning, and would soon lead to continuance of reform in physiology, nosology, chemistry, and all the other allied branches of physic.

Revision of English Criticism of Physic.

For the future of Physic it is essential to revise our method of receiving and criticising what is brought to light as real or assumed novelty of knowledge. It is a marvel how Physic is daily, and with infinite waste of labour, rewritten; it is still more of a marvel how what is written and rewritten is criticised. In our past history we were divided into three classes. We had a class of great and original workers, who, after much toil, dared to add something to the republics of science and literature. We had a few great critics, who, claiming for themselves no originality, were nevertheless very great and very powerful; they knew what was old and what was new; with unsparing, masterly, and unanswerable argument, they held up the old as the old, the new as the new, and the supposed new as the old in different attire, and they made history. We had, lastly, the reading, observing, and learning masses, who, taking up the work the original thinkers brought forth, used it, and applied it according to its worth. Now, all this is changed. Now, the popularity of literary business, I cannot call it literary art, absorbs every man; and sedentary force, force developed *in situ*, is, as compared with force *in motu*, all pervading. In this day, our original workers let themselves down into letters; our practical workers lift themselves up into letters; and as to our great critics, of them it is impossible to speak, for the simple reason that the whole family is dead, while criticisms have become mere impulses—bastards of love and hate, boldness and fear, adulation and abjuration, industry and ignorance, flux of generosity and flux of selfish conceit.

These are evils, but they are minor evils compared with others. I believe, as a nation, we have a national fatuity for ignoring the history of our own country, and that we are the most unpatriotic historians on the face of the earth. Still, it would excite surprise if any City merchant were to write to the *Economist* to ask why England was the only country that could not produce a millionaire; or for a man of letters to write to the *Athenæum* to ask why England could not produce a poet; or for a man of law to ask why England could not produce a judge; or for a man of science to ask why England could not produce a mathematician or an astronomer. Well! but I took up a paper a few weeks since, and found a Physician, a graduate of a leading university, actually asking the question — Why England was the only nation that could not not produce a physiologist? The fact is as incredible as it is fact. But think of the depth of darkness of learning in present Medicine, when, on the very land where was discovered the physiological truths of the circulation of the blood, the process of respiration, the presence and uses of oxygen, the division of nerves into nerves of sense, common sensation, and motion, the division of roots of nerves into sensory and motory, the reflex function of nerves, the structure of bone, the transfusion of blood, the presence of fibrine as a separate part of blood, the fact that the poison of the viper is not poisonous when swallowed, the fact that if a main artery be tied the circulation will continue by the anastomosing vessels; and, not to name a hundred more things, the immortal discovery that narcotic gases may be inhaled to the annihilation of pain with continuance of life—think, I repeat, of the depth of darkness of present Medical learning, when an English Physician can ask why England is the only country that cannot produce a physiologist! The question was lamentable. It was not more lamentable than the reply founded upon it. The reply was —that England could not produce a physiologist because the State did not, as on the Continent, support the study of physiology. As if, in a country where, under perfect freedom, the best of intellect must make free way, it were the duty of the State to select and lift up certain philosophers, and assuming, by some intuitive wisdom of its own, that these were the philosophers, make gods of them and slaves of all the rest.

Cognate with these topics is another, on which there must, in this country, be revision, if we of the country would have a future in Medical science. This revision consists simply in assigning due credit to English labour. A distinguished German Professor said to me, some two years ago, with native candour, "You English writers would make Germans and Frenchmen very proud, by what you say of us and our works, to the exclusion of Englishmen, if the persistent and loud laudation would stand the test of history; for you seem to think that, whereas nothing good can come out of England, everything good can come out of Germany and France. We,"

he continued, "who read little English, err on the other side—it is a very natural error—and think nothing is so good as our country's labour; but," he added, "flattering as your praise is to many of us, it is contemned by those of us who reflect, because it is simply untrue, and we dare not accept it. We see, in fact, in you an internal jealousy which persuades many of your writers to give us credit for doing original work in order that it may not be conceded that the work done was done originally by your own countrymen, and was only followed by us." I believe no more faithful criticism was ever passed upon English Medical literature; but it was not more faithful than another remark by the same authority, to the effect that in our indiscriminate praise of Continental research, because it is Continental, we persistently speak of foreign writers as the lights of the world, who in their own sphere are unknown as being possessed of any light at all, while we ignore the real men who shed the light.

Revision of Medical Education.

For the future of Physic, it is an essential that some revision be made in the system of training our sons for the work of our Professional life. I shall touch on this subject very briefly, because the reforms suggested as necessary, and which even ten years ago were treated as visionary and revolutionary, are now all but unanimously conceded as the right, and proper, and requisite reforms, to be promptly carried out. They are revisions founded on observation of the past, and on natural observation, and are precisely such as any man with his face turned backward on history would be sure to offer, and, as Schlegel would say, prophesy upon. They rest on these truths: that whereas, from the revival of letters to the commencement of the present century—from Vesalius to the Brothers Hunter—Medicine was never without at least one great and exalted genius for Professorial work, she has now not one, because the art of the teacher has been allowed to fall into disrepute; that in a city even so large as London, there really is not scope for ninety Professors of Physic; that the plan of subdividing Medical science into parts, for the mere sake of increasing the number of chairs, is a false and mischievous division; that the charitable institutions called Hospitals ought to be schools within which practical study of disease should alone be conducted, and that they are supported by the public for the cure of disease, not as schools of chemistry, schools of anatomy, schools of physiology, schools of botany, and schools of every general science apart from practice; that every Hospital Physician and Surgeon is not by instinct a teacher of science; that in London two great theoretical schools of Medicine are sufficient, and that as chemistry would be better taught by a great teacher like Hoffman than by a dozen small teachers, so of the other theoretical branches of knowledge; and that an astounding advance would soon be manifest were the present Practitioners, who make teaching for an hour a day a drudgery of their existence, replaced by a few men who looked upon teaching as a noble pursuit, who devoted all their lives to its cultivation, and who, when they met their admiring classes in academical dignity, felt that they were carrying on a work which added to their fame, their competency, or, if the success of the teaching were great, even to wealth, as a reward for industry.

Revision and Extension of Method in Medical Observation.—The Blood.

For the future of physic, it is essential that we should revise method of observation not less than method of expression of observation. It is not that we need new inventions of research, but that we require to exchange some favourite methods, well-nigh worn out—and, honestly speaking, not very useful, except as floating capital—for some other methods not worn out, and asking to be turned into capital promptly. I will take in illustration one or two of the most pressing subjects of this kind.

The immensity of the discovery of the circulation of the blood so deeply influenced Medical men, that for over two centuries all dynamical acts of the living body have been included in the study of the circulation, while, to create newness, many ideas have been connected with the discovery year by year, some of which are good, others, at the most, a mere part of the thing itself, or perhaps no part of it, but an imagining upon it. The blood flows from the heart by an artery into the body, the blood flows through capillaries into a vein, the blood flows back by a vein to the heart; the blood is red, the blood is dark; the blood is vitalising, the blood is poisonous; the blood takes heat, the blood gives up heat; the blood absorbs gases, the blood gives off gases; the blood is liquid flesh, the flesh is solid blood; the blood bleeds, the blood stops bleeding; the blood is a fluid, the blood is a solidifying liquid; the blood turns all animal parts into itself, the blood yields all animal parts out of itself; there is a healthy body, the blood therefore is healthy; there is a diseased body, the blood therefore is diseased; and so on.

There is in these forms of thought much simple truth, much error, much want of true appreciation; so that, on the whole, an instauration is demanded, founded on new physical truths. Thus the idea that arterial blood is a sustainer of life, and venous blood a destroyer, is an utter misconception, inasmuch as modern research tells us, not only that arterial blood is a sustainer up to a given point, and no further, but that arterial blood could not be produced unless venous blood were present to play its part in the process of supporting life. Again, the idea that the elaborate system of bloodvessels is laid down for the simple purpose of circulation is an error, or at least a shortcoming of truth. A river may be the mechanical means for bringing into a town on its banks all the necessities of the town—the water, the food, the fuel, the clothing; and the same river may be the means of removing all the used up materials and *débris* from the town; and, compared with the two streams of the blood, it may be said to complete a circulation. But the problem of the service performed by the river is little enough after its circuit is discovered, until we know what takes place in the town with the things brought into the town, utilised, and sent out of it. The same in the body: it is poor work to know the circuit of the blood and not to know all that takes place out of it, the transitions of substance in the provinces of the body through which the river flows. It is the fact, nevertheless, that up to this time we have made out little that is positive on this grand point; and here, consequently, is scope for work. Happily, the method of new research is suggested to us in various ways, and in such ways that the research can be conducted accurately, even out of the body.

For example, the magnificent fact of dialysis, opened to us by the discoveries of our great physical master, Graham, is full of wonder for our indulgment. We know now that the body is divided into structures, that are either colloidal or crystalloidal. We know that colloidal substances take up water and hand it over to crystalloidal substances; and that the crystalloids fix the water and bear it away. We know that the material construction of colloidal substances changes in character according to the relation to water and crystalloids. Thus the pure and exquisite colloidal globe, the crystalline lens, is a clear transparent solid, under the ordinary conditions of the living animal; but we let circulate through it by the blood a little excess of crystalloid, and that transparent province of the organism becomes a dense opaque cataract. We remove the crystalloid by admission of water, and, behold! the colloidal matter clears again, and the cataract becomes once more the transparent refracting lens. We diffuse fluid colloidal fibrine through a crystalloidal solution, and it remains a fluid; we diffuse water through the solution until we have saturated the crystalloidal matter, and thereupon the fibrine solidifies, precisely as it solidifies in those active colloidal vital instruments which we denominate muscles. We know that, if we place a mixture of colloidal and crystalloidal substances upon a colloidal membrane floating on water, the colloidal substance in the solution will deposit on the membrane, while the crystalloidal substance in the solution will pass through into the water. We know that, if we pass a crystalloidal fluid through a colloidal tube surrounded by water, the saline solution will pick up the water in current and bear it away. And, lastly, we know that, if we place a colloidal and crystalloidal mixture in a membranous tube, the outer part of which is exposed to the air or to open space, the membranous tube, if there be no excess of crystalloid in the solution, will take up a certain portion of the water, and, at a temperature not higher than the temperature of the living animal, will give up the water to the open space by transpiration, or, in other words, by evaporation.

Well, we turn with this knowledge to the construction of what I have called the provinces of the body, and lo! there is in every part a great system of plans for this simple process of dialysis. There are the colloidal dialysing membranes everywhere; there are the membranous tubes for conveying the compound of colloidal and crystalloidal matter which we denominate the blood; and there are the open colloidal transpiring surfaces which we call skin and mucous membrane. What a field of knowledge is here opened to our view!

The Two Nervous Systems.

For the future of Medicine, an improved field of research is demanded in relation to the functions of the nervous systems. From the time when our master, Thomas Willis, whom Rochester's mutton-eating king destroyed by a senseless jest—a king's word, however foolish, being then indeed a vengeance

—from the time when Willis first carefully dissected and described the brain of man, and wrote for us that wonderful but little-known volume, "De Anima Brutorum," until now, there has been persistent study on the nervous functions. This might be expected, for around the study there is, if I may use the expression, a sublime romance which holds in entrancement the fervid mind. The worst of the study is, that while tens of masters have followed it, hundreds of slaves have fooled with it, as if it were something to be even connected, through weakness, with labours the masters have considered so matchless in promise of result. In consequence, many major facts made out in relation to the nervous system have been buried amongst rubbish of speculation, while steady research towards certain definite objects has been replaced by indefinite and meaningless hypotheses. We want, then, to call back upon the few greater studies, and recognise them.

Physical Study of Emotional Phenomena.

For the future of Physic, further advance is demanded on the subject of the governing power of the sympathetic or organic nervous supply over the bloodvessels. That the section of the sympathetic trunks leading to an organ or part causes paralysis of the vessels of the part, so that they fill with blood, and for a time give off excess of heat, is now distinctly proven. To this is more recently added a truth equally striking, that one chemical agent at least—I mean the sweet, fruity-smelling fluid called the nitrite of amyl—when it is introduced into the body, produces the same kind of paralysis; so that we can by its means charge the bloodvessels with blood to such intensity of fulness, and so easily, that a little of the vapour diffused in this room would quicken the motion of every heart, and flush every cheek with crimson; and to this again is added still more recently another fact, that those unseen agencies which excite the emotional phenomena of blushing, palpitation of the heart, pallor, faintness, act in precisely the same physical manner—viz., by producing paralysis of the controlling sympathetic power.

Here, then, is open to us, for contemplation, a psychical study from physical data. It is opened to us that emotional phenomena are the results of physical vibrations or shocks conveyed from the outer world through the senses to the organic nervous centres; that these centres lose, under the physical impression, their controlling power over the vessels under their charge, and that all the phases of an emotional phenomenon, from flushing to paleness, from paleness to pallor, from pallor to syncope, and from syncope to death, are but grades or gradations from one physical change to another, the whole resting on the primary shock conveyed to the organic nerves.

And yet another point in this advance deserves notice; it is, that the emotional effects produced by the chemical agent I have named, can, when they are not overpoweringly called forth, be opposed, to a certain extent, by the force of the will. Thus, those persons who are by nature most easily influenced by what are called emotional causes are those who are also most easily influenced by the agent; a chemical substance might, in fact, be employed as an actual physical test of the organic susceptibilities of different individuals.

Molecular Changes in Nervous Structure.

Galvani's and Aldini's experiments were astounding, and rightly read, they retain, as do all carefully proven facts, a lasting value; but they led to more error than any of which I know. There is nothing in science, of nonsense, so gross as the garner of nonsense that has been gathered, up to this very time, on the so-called animal electricity. Incoherency can go no further than it has gone in this direction, while science has not advanced a minute's march in seventy years toward even a preliminary demonstration of the existence within living bodies of a sign of an electrical mechanism, except in the rare cases of one or two specially constructed electrical animals.

Here, then, I think, for the success of the future of Medicine, we have to call back and revise. We want to know, even yet, whether there be a nervous fluid traversing the nervous cords, or circulating between the nervous centres and blood. And particularly we want to ascertain what is the molecular change of matter of the nervous system, when it sleeps or rests, when it wakes or moves. Light, I am glad to say, begins to break on this primary inquiry. We can make nervous substance temporarily solid by cold—*i.e.*, by crystallising it—and then the nervous structure rests and sleeps. We have to see, then, whether, when our eyes droop with natural sleep, this same change of structure is not progressing naturally in nervous structure; we have to ask whether under sudden shock—shock from a bullet, for instance—the complete destruction of nervous power is not due to some change of nervous matter under sudden vibration of its particles, like the change which occurs when freezing water suddenly solidifies under motion, or when fluid fat, by brisk agitation, becomes a concrete mass.

Morbid Impressions on Nervous Matter.

There is for the immediate future of Physic another study; the study of directness of morbid impressions through the expanses of nerves, and of primary origin of disease by instant change of nervous physical state. The influence of the old humoral pathology hanging still about us, we are bound by its strong bonds to the blood as the fountain, not only of all health, but of all disease. Thus we talk of blood diseases as if we knew every fact about them with a certainty of absolute knowledge. Candidly, however, what do we know about blood disease? We know of white cell blood; we know of chylous blood; we know of anæmic blood; we know of a blood with a deficiency of fibrine; we know of a blood with an excess of fibrine; we know of a blood modified by bilious matter; and, in some extreme forms of fever in a late stage, we know of a condition of extreme fluidity with disintegration of corpuscle of blood. All this is valuable knowledge; but what know we about direct morbific influences upon blood? We talk of zymosis, and speak of some diseases which are assumed to be due to poisoning of the blood, as zymotic blood diseases; but respecting this zymosis or fermentation of blood, as a fact, we have not a shade of evidence. There may be fermentation in the blood, but, if so, we do not yet know what parts undergo change, and we understand nothing whatever of the products of the fermentation, what they are, or where they go to. We say, in reference to poisons, that they enter the blood, and are conveyed by it to all parts of the body, so that the blood is the channel by and through which all poisons act. Is this true? It is not proved true; and modern evidence respecting the action of nitrite of amyl and hydrocyanic acid is to the direct proof that the blood channel is unnecessary; that immediate action on a nervous expanse—the olfactory, for example—is an efficient influence, and that blood-changes and changes in circulation, though they are the first visible phenomena, are but secondary phenomena to the nervous shock. We see even that the organic nervous system itself may be immediately influenced through the senses, and that as one agent—a particle of musk for instance—can produce one distinct effect (an odour), so another agent—such as a volatile organic nitrite—can, through the same medium, produce another distinct effect. What, then, of the agents that cause our spreading diseases, in which the alarm is first rung on the sympathetic chain, in symptoms of nausea, vomiting, irregular tension of bloodvessel, and other proofs of disturbed balance of power in the organic centres? In what does the crimson blush and injected throat of scarlet fever differ from the crimson blush excited by nitrite of amyl? Is it not that in scarlet fever the whole of the sympathetic is paralysed, and that the vessels it controls are no longer under rein; and are not the nervous derangements primary, the blood derangements secondary? I will not answer these questions in the affirmative, but I do affirm confidently that until they are answered we can make no advance whatever in understanding the origins of pestilential diseases, their nature, or their scientific treatment; that until these questions are answered a class of diseases that should be the easiest of cure, and that sweep away our population at the season of life when all is promise and hope, will continue to be the mocking witnesses of our inability to save even our own flesh and blood in the freshness of its youth and its beauty.

I have spoken of acute diseases: I would extend the argument to chronic diseases. We say cancer is a blood disease. Is it? There is no evidence of such thing; but there is much evidence that it is a primary nervous disease. We say of all hereditary diseases that they are blood diseases. Are they? There is no evidence that they are; but there is most telling evidence extant that hereditary proclivities of all kinds, mental and physical, have their bases, invariably, in the nervous system. The recent researches of Dr. Brown-Séquard, on the transmission of disease from generation of animal to generation, from a primary injury of nervous matter, call out to us to change our course of thought, with a force of silent eloquence words cannot possibly approach.

Curers and Cures.

Up to this time we have been divided into three camps of so-called curers. There have been men so saturated of faith as to hold up the device Elixir Vitæ, and maintain the discovery of the art of extending life to indefinite length; there have been men who, watching the uncertainties of cure, and perfectly innocent of faith of any kind, have laughed secretly at all attempts at cure, and have carried a banner white as their own vitals; while a major camp has continued to toil away, amid

all difficulties, conscious of the extreme follies of their divided allies, conscious of the limitations of their own power, and yet not sorrowful like men without hope, but doing their best, and believing in the grandeur and ultimate success of their calling. With this last camp, the future of Physic, in its curative and practical life, must remain for perfect development. The ideal of a perpetual life, on a limited planetary surface, with an unlimited reproduction of life, is a physical absurdity, suggesting opposition, not to death alone, but to birth, and suggesting the re-editing of every human work except humanity. The ideal, on the other hand, of humanity charged and filled with soul, and advancing ever towards the high, the higher, the highest intelligence; the ideal of this humanity panting out its life in eternal sufferings and repulsive deaths, without helping itself to the *euthanasia* that has been so beneficently provided for it at the close of its natural cycle, is equally absurd physically, while it is morally infamous. They, therefore, of the major camp have before them the labour of cure; and this is the grand scope of their task, that between the first natural appearance of the human living thing on this earth, to its last natural appearance, it shall not die from unnatural causes, nor from natural causes that come within the governance of man. Thus we—for I assume we are all of the major camp—are led, not simply to the prevention of injuries of the body, but to the remedying of injuries we cannot prevent. And what is our prospect? It is good. The prospect is good, because we are learning definitely, not to lose trust in remedies for the reason that we cannot apply them at once with accurate judgment, but to believe in them as powerful means of cure that are yet to be accurately employed. The prospect is good, because we are no longer picking up remedies upon remedies without object, trying them in any and every disease, and saying, "We have tried this or that agent, and have found this or that result;" but are now seizing certain agents, and are forcing them to tell us what they can perform on the body, what is their physiological action, and what antagonism of action they offer to the phenomena of disease. The prospect is good, because we are learning in respect to remedies, that their physical action, limited as it is to action on oxidation, action on the process of animal natural dialysis, or action in controlling or exciting the nervous systems, may be learned by methods of physical research, that wait but to be tried to be proved as true to us as to other physical inquirers.

From all these points of view the prospect is, that our conquests in the direction of cure will be as rapid and certain henceforward as they have heretofore been slow and uncertain; that we shall gather insight as to what can and cannot be done for cure; and that when we say a cure can be effected, we shall carry out what we say with the confidence of men who have the positive in their hands, and the knowledge that guides it.

The Last Attainment.

In the future of Physic, as we advance in the directions I have tried to signalise, we shall stand firmer and fairer with the world. But our success shall not be perfect until yet another, and of all the mightiest, truth breaks upon us—viz., that the solemn, the august secret of our power is, not in the amassment of wealth by our Professional exertion—not in the amassment of popularity by it—not even in the creation by it of that future fame and name in history which all men of noble instinct and noble nature would die to secure—but in the accomplishment by it of one simple end, *the happiness of mankind*. In this accomplishment lies our own happiness, and with it all true and worthy power, all true and lasting glory. Meted out ever for this end, we require no other incentive for research, no other corrective of research, and no other protective against schismatic foes: nay, we require not even reward of gratitude, grateful though that may be when, spontaneously, it flows at our feet. It is a simple formula of living action, this; but how potent! Is this Professional desire, is this act, is this practice which we daily do, in desire, in act, in practice, is it for the happiness of the individual, of the race? Shall the conscientious answer be Yes? Then is the act strong, unassailable, and, though it even partake of error, holy. Shall the answer be No? Then is the act weak, easily controverted, bad. This is not moral axiom; it is scientific truth. To many in all time it hath been known, and Medicine hath lived upon the knowledge: to many it is known now, and Medicine is sustained by the knowledge: but in the future *all* must know it; it must be the perennial force hidden in our hearts; our unspoken secret, worthless were it revealed. It must be the bond between ourselves, holding us as brethren in such subtle sympathy, that envy shall be an instantly detected deformity, repulsive and retreating. It must be the bond between ourselves and the world, by which the world shall hold to us neither from wonder, nor admiration, nor other doubtful quality of recognition, but from confiding, habitual, abiding trust. Above all, it must be the fountain of our inspiration from the Lord of nature, whose whole scheme and design of creation, however strange it may seem, and to feeble sight devious, is ever toward and for the perfected happiness of His worlds of Life.

On the motion of Mr. Gay, seconded by Dr. Day, of Stafford, a vote of thanks was passed to Dr. Richardson for his address.

THE DINNER.

The members of the Association and friends dined together in the evening. There were present—Admiral Sir E. Belcher, K.C.B., Dr. Lyon Playfair, M.P., Mr. Hepworth Dixon, Mr. Menzies, Mr. Gay (President of the Medical Society of London), Mr. Marmaduke Bell, Mr. Prideaux, Q.C., Mr. Frames, and Drs. Day (Stafford), Day (London), Day-Goss, Wynn Williams, Bloxam, Cooper Rose, Cholmeley, Cleveland, Ballard, Semple, Davis, Griffiths, Whiteman, Paul, McIntyre (Odiham), Seaton, Ramsay, O'Connor, Haward, Julius Pollock, Ross, Gardner Hill, Watson, Schofield, and many others—the party numbering about sixty. Dr. Richardson proposed the usual loyal toasts, "The Houses of Parliament," and "The University." Sir Edward Belcher, in a most felicitous speech, returned thanks for the navy; Dr. Cooper Rose, for the army and volunteers. Dr. Playfair responded for the House of Commons, and in doing so expressed his belief that it was quite in vain for any private member of the House to introduce any new Medical Reform Bill. Mr. Hepworth Dixon proposed "The President;" Dr. Ross, "Literature;" Dr. Julius Pollock, "The Bar and Mr. Prideaux, Q.C.;" Dr. Day, "The Council and Vice-Presidents;" and Dr. O'Connor, "The Press." The dinner was enlivened by excellent music under the conduction of Mr. Brady, and the whole passed away as happily as successfully.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A meeting of the Association of Poor-law Medical Officers was held on Tuesday evening last at the Freemasons' Tavern, Great Queen-street. Dr. Rogers, President of the Association, took the chair, and delivered the opening address, in which the subjects of the registration of disease and the applicability of the Irish system of Poor-law relief to England and Wales were discussed.

After referring at some length to the subject of the registration of disease, Dr. Rogers proceeded:—You are aware that, in my last address, in briefly referring to the report of the Poor-law Board, then just issued, I stated that I would at this meeting direct attention to the Medical section of it, with the view of exposing the numerous fallacies which it contains; and as a large portion of it was occupied by an attempt to discredit the Irish system of Medical relief, by making out that it was something totally different from what its advocates had asserted, I forwarded a copy to Dr. Maunsell, an Irish dispensary Physician, who has devoted considerable attention to Poor-law questions, and requested him to give me his opinion on certain marked passages. I will now read you his reply:—

"I find that the mean number of paupers in receipt of out-door relief in England was 784,906, and of in-door, 157,740: that is, over six times as many received out-door as did in-door relief; while in Ireland, 288,953 received in-door, while but 50,257, or less than one-fifth, received out-door relief. I attribute this discrepancy to the fact, that as the vast majority of the out-door cases are those of sickness, they come under the Medical Charities Act in Ireland, while in England they become cases of out-door relief. To assimilate the numbers, the 775,327 dispensary cases ought to be added to the 50,257 for Ireland. Now let us see the economy of it.

Rate per head, out-door relief, England, £4 5s. per annum.
" " Ireland, less than £1 "

"The expenditure for out-door relief being £48,184 for 50,257 paupers; for those relieved under the Medical Charities Act (number 775,327) the expenditure for Medical officers, apothecaries, midwives, medicines, medical appliances, rent of dispensaries, fees for vaccination, registration, etc., was £123,713, or something over 2s. 6d. per head. In fact, it appears to me to come to this: in England, under your system, you divide the

ready-made article under two heads—the indoor paupers, which costs you £8 10s. per annum to support; the out-door paupers, £4 5s.; that these latter are augmented to an inordinate degree by the want of a Medical Charities Act, which would enable some effort to be made to stay them on the threshold of pauperism—that is, when it arises in sickness. This we have, and this we apply, and do so efficiently at the cost of 2s. 6d. per head, and the consequence is that, while our health and strength is improved, and thousands of us are not demoralised by considering ourselves paupers even in name, our rates are but 2s. 11¾d., whilst yours are 7s. 0¾d. per head of the population.

"In page 48, 'another important distinction is to be borne in mind; it is, that, whilst in England a Medical order is treated like any other order for poor relief, and the recipient is at once counted as a pauper, in Ireland the receipt of a Medical order does not entail any such result.' There does not appear to be much cause for congratulation on that score; you call it out-door relief, and make them paupers at a cost of £4 5s. a head; we call it Medical relief, and do not demoralise them by making them paupers, at a cost of 2s. 6d. per head. I call this per head, as I have divided the expenditure on dispensaries by the total number of tickets; this large class alluded to differs therefore merely in name, and tells very much in our favour, both socially and economically.

"In page 50, it says 'that it is evident that a much greater proportion of sick paupers are required to come into the workhouse Hospitals in Ireland with its dispensary system, than in England without it.' It argues thus, because it chooses to say, on whose authority I dont know, that the sick poor admitted into the Irish workhouses in 1868 numbered 112,071; out-door poor, 50,257. Now, if you turn to page 17 of the Irish Poor-law Commissioners' Report, you will find, after the year 1868:

Total number admitted in sickness	..	55,607
Number admitted who were not sick	..	185,237
Total number admitted during the year		240,843

"It attributes this circumstance 'to a more strict state of the law, which, in the case of the able-bodied, prohibits out-door relief,' etc. There is no such law. 'And to the necessity of removing the sick poor from their wretched homes, where there would be no chance of recovery.' This is very pretty writing, but it is not the fact. If the patient chooses to remain in his home, we cannot remove him against his will, and still our death-rate is less than yours.

"With regard to 'the ready access to gratuitous Medical attendance, and the serious additional charges it would entail on the public burdens.' Has it done so in Ireland with the present faulty arrangements? With regard to 'its pauperising tendency, by diminishing self-reliance,' etc. Is not that exactly what it prevents? in contradistinction to your system, which makes every poor person who cannot at the moment pay a Doctor, a pauper.

"In page 51 they assume 'that because 50,257 persons only appear on the lists as out-door paupers, all the persons relieved under the Medical charities, 775,327 could pay, and are not paupers as they would call them. I grant you that a great number of them could pay something, but not to such an extent as would operate in any such degree as they would have you to suppose, as a transfer of patients from the private to the public Practitioners; besides, this is merely a bugaboo to enlist Practitioners against the system. Of course the faults of our system are not going to be adopted by you.

"This specious argument comes next: 'There are few Medical men in the rural districts in Ireland, while in England, on the other hand,' etc., and it takes the whole of Ireland, and compares it with London. On this subject you might as well correct them. It is true that in Ireland there are 2410, and that 949, or three-eighths, are Poor-law Medical Officers. The number of Medical men in England and Wales is 10,616. You appear to have 623 unions; and I imagine, if you count the Medical officers, they bear a very close proportion to ours. Next they say, in London alone there are 3228 Medical Practitioners, or one to every 1000 of the population. Now it so happens that in Dublin and its environs there are 500 Practitioners, and the population is 412,053, or more than one to every 1000 inhabitants; but if you deduct 3228 from the total of English Medical men, you have but 7000 for the rest of England and Wales. Take Churchill's Directory and look at the local list, with the towns and villages where Medical Practitioners reside. Birmingham shows 250; Brighton and Bristol, 100; Liverpool, 300; Manchester, 300; and many of 100, 80, and 50; now, if you deduct these from the remaining 7000, I think you will find that there are just as few Medical men in the rural districts of England as there are in Ireland.

"I do not know to what extent Medical clubs exist in England; but I am very much under the impression (from what I have seen and read) that both the poor and club patients are, under your starved English system, extensively attended by unqualified assistants. I see, on page 58, that the number of Medical officers in England and Wales amounts to 3906; total Medical men, 10,616. Ireland, 949; total of Medical Profession, 2410. There is not much discrepancy to boast of, then.

"I think I have now touched on most of the subjects contained in your Poor-law report to which you have directed my attention, and which has evidently been manipulated to serve a purpose."

While on this subject, I may as well inform you that in 1852 (the date of the introduction of an efficient system of Medical relief in Ireland), the gross expenditure on poor relief was £1,099,678, or 1s. 7d. in the pound, inclusive of Medical relief, which was then only £54,289; in 1869, gross relief had fallen off to £817,772, or 1s. ¼d. in the pound, inclusive of Medical relief, which had been gradually increased until it has become £123,718 on the Medical charities only, and a total of £133,000, inclusive of salaries and drugs, for the Irish workhouses. There are three ways in which the Irish Commissioners state that Poor-law expenditure may be diminished, "by the improved sanitary condition of the people, and consequent decrease of sickness; by a decrease in the applicants for workhouse relief; and, lastly, by a reduction in the price of food." You see they very properly put the preservation of the health of the poor in the foreground. In the two Dublin workhouses, in 1852, there were but two Medical officers, and an apothecary for each, at salaries of £100 respectively; now there are three in the north and four in the south, and apothecaries, at £150 each; and yet the expenses have diminished.

Reverting to the annual report, on page 49 will be found the following:—"In England, the instances are comparatively few in which persons receive Medical relief only; nearly all here who are attended by the Poor-law Medical Officers requiring further relief as well." Believing this statement to be generally opposed to what really does happen, I have made extensive inquiries in every county of England and Wales, and find that, as I suspected, large numbers of such poor are attended who have no other relief whatever. I will quote from the letters I have received: "For every pauper requiring relief, I attend four or five requiring Medical relief only, and whose names I never even enter in my Medical relief book." "The instances in my district of those who have Medical relief only, would be five out of six or more." "It is very common indeed to have an order for Medical attendance on the wife or children, the husband being in work at the time, and receiving no further relief." "It is not borne out by my experience, as a great number of poor receive Medical attendance only." "I can easily understand that the reports furnished to the different boards of guardians may appear to confirm the first statement. It is the practice of many poorly paid officers in rural districts not to enter on the weekly report the names of persons not recommended for extra relief, especially children. Many cases are attended in this way without orders, and never come under the notice of the relieving officer." I could make extracts of a similar character from a large number of letters. On the same page I find another assertion: "The services of the Poor-law Medical Officers are strictly limited to the pauper class." I will again quote from letters: "I should say decidedly that, in my experience, the services of the Poor-law Medical Officers are not strictly limited to the pauper class." "My services are frequently ordered and given to persons who neither require nor receive further relief; nay, more, whom the Board pronounce able to provide additional relief for themselves. I have frequently to attend ordinary illness, while midwifery orders are refused on this score." "I frequently thus attend small shopkeepers, and the servants of farmers and good tradesmen, even farmers having small holdings." "I have been repeatedly ordered by the relieving officers to attend persons not on the list of paupers; indeed, I am obliged to attend when any one desires to have my services gratis."

Mr. James Lewis, of the Registrar-General's office, attended to explain a system by which he considered that suitable returns of disease could be obtained. The desirability of an efficient registration of diseases was evident from the fact that very lately it was shown that relapsing fever had been prevalent in Tredegar, London, and Liverpool, long before any fatal case appeared in the Registrar-General's returns. Death returns were clearly not sufficient. A registration of diseases was as necessary to the public health as outposts were to an army. The Poor-law Medical Service was, at present at least, the source to which we had to look for such returns. He pro-

posed, therefore, to utilise the Medical relief-books, which were not even looked at by the guardians. He thought that these returns ought not to be sent away either to the Health Officer or to the central authority, but that they ought to remain in the hands of the Medical officers as long as they wanted them. The Health Officer ought to have as much information as possible concerning the health of his district. He proposed a system by which the Poor-law Medical Officer's duplicate copies of the entries in his relief-book—one of which he should retain, the second he should forward to the Health Officer, and the third to the central office.

Mr. BENSON BAKER proposed the first resolution:—"That in the opinion of this meeting it is desirable that a general registration of all new cases of disease coming under treatment at the public cost, in workhouses and poor-law districts, should be established; and that the Medical officers of such workhouses and districts, as enjoying the largest opportunities for observing facts prejudicial to the public health, should be intrusted with the duty of making weekly, or in times of epidemic, more frequent returns of cases actually coming under treatment, and of other facts concerning the spread of disease, to the Health Officers of their respective localities."

Dr. MAUNSELL, Dispensary Physician of the South Dublin Union, in seconding the resolution, explained the system of registration in actual operation in Ireland.

Dr. SANSOM advocated detailed returns, and not mere excerpts.

Dr. BARCLAY said his experience led him to think it advisable that the returns should be sent to the central office at once, and then be sent back to the Health Officer. He therefore questioned the advisability of pledging the Association to this plan.

Dr. STALLARD said that the British Medical Association seemed to lay stress upon this point. He was of opinion that the returns ought to be made to the guardians as much in detail as possible, as the information was to them of the highest importance.

Dr. LETHEBY said that, as far as his experience went, it was of the greatest advantage that an immediate return should be made to the Medical Officer of Health. What was wanted was a simple and speedy return.

The resolution was put and carried.

Mr. WICKHAM BARNES proposed the second resolution:—"That it was advisable that the workhouse and district Medical officers should be appointed Deputy Health Officers, and be remunerated for the proposed health returns on a scale to be determined by the central authority."

Dr. BARCLAY seconded the resolution, which was then put, and declared carried.

Dr. BRETT proposed, and Dr. ALDIS seconded, a resolution to the effect that copies of the resolutions should be sent to Mr. Goschen, and to the Secretary of the Sanitary Commission.

Dr. DUDFIELD supported the resolution.

The PRESIDENT rose to mention a fact that had come to his knowledge within the last two hours. It was to the effect that, in consequence of the many abuses that prevailed under the present system, a general order had been issued, by which it was determined that medicines and drugs should no longer be purchased by the respective boards, but that an apothecary-general should be appointed at a salary of £500 a year, who should purchase the cheapest and best drugs for all the unions. The importance of this measure would be seen when it was remembered that £32,000 was spent upon medicines. As the same abuses existed in England, Dr. Rogers urged this plan upon the attention of the Poor-law Board for adoption in this metropolis.

THE sum of £2210 has been raised towards the erection of a Cottage Infirmary at Savernake.

BESIEGED FARE.—Cat is eaten and sold openly, and although I never had the pleasure of partaking of a *civet* of the kind—to my knowledge—I can assure you that cats are relished by a good many people, and are quoted at 6f. each, while dog is quoted at 4f. the half animal. I have, however, doubts about the dog. One journal declares that more than 24,000 cats have been sold and eaten. A student in Medicine sent the following note to a friend:—"Come on Saturday to my rooms and eat a broiled cat, seasoned with pistachio nuts, olives, gherkins, and pimento, and washed down with Chablis. After dinner we will drink some Rhenish wine to the indivisibility of France." At a good house the other day—the house of a *gourmet*—the bill of fare was *filet de cheval rôti, escalopes d'anon*, plum pudding, *à gruisse de bœuf*.—*Food Journal.*

REVIEWS.

Medical Diagnosis, with Special Reference to Practical Medicine. By J. M. DA COSTA, M.D.; Lecturer on Clinical Medicine, and Physician to the Pennsylvania Hospital, etc. Third edition. Philadelphia: Lippincott and Co. Pp. 814.

Auscultation and Percussion, together with the other Methods of Physical Examination of the Chest. By SAMUEL GEE, M.D., F.R.C.P.; Assistant Physician to St. Bartholomew's Hospital, etc. London: Walton. Pp. 299.

A Guide to the Physical Diagnosis of the Diseases of the Lungs and Heart, together with an Introduction to the Examination of the Urine. By JAMES SAWYER, M.B. London; Resident Physician Queen's Hospital, Birmingham. London: Hardwicke. Pp. 245.

THREE books on Medical diagnosis published simultaneously! "It never rains but it pours," we are tempted to cry; but let us rather say a word on the books. Da Costa's work is well known, and highly and justly esteemed in England as in America; and it is, perhaps, in those chapters relating to diseases of the chest that it is strongest, and may best compare with its neighbours. Dr. Gee is well known to be an exceedingly cautious, painstaking, and erudite Physician, one well qualified to write such a work; Dr. Sawyer is, as yet, less known to fame. In training men to a knowledge of chest diseases, we hold it to be of the very highest importance to teach them processes as well as results. Educate a man well in a logical cast of thought, and his accumulating experience will do the rest; but accumulated experience, constantly liable to fallacious applications from inperfect methods, is a delusion and a snare. The same may be said of other departments of Medicine, but here it is especially true. Ask a student who has just examined a chest what he makes of the case, and, in all probability, he will say phthisis or aortic regurgitation, as the case may be; he will not tell you that he has made out the existence of certain phenomena from which he deduces the existence of the diseases; his reasoning is blurred over. The book, therefore, which is best adapted for the student is that which logically leads him to his conclusions. The basis of all pathologic knowledge is the normal—a dictum unhappily almost systematically ignored. Men are trained in the sounds of a diseased lung, when they know nothing of the healthy one. Dr. Gee does good service in this respect, a considerable space being occupied with a description of the normal condition of things. First he speaks of the shape of the chest, and, besides the typical shape, he recognises the alar, the flat, the transversely-constricted, the pigeon-breast, and the rickety chest; there is a convenient designation he might have adopted—the long and narrow chest, and another form he might have described—the tight-laced chest. Another point which we do not think is sufficiently dwelt upon by most writers is the fact that a sound, normal at one time and place, may be quite abnormal at another time and place—voice-sounds, for instance. This is done by Dr. Gee, who, however, merges all chest voice-sounds of abnormal clearness into bronchophony. But there is another point on which we cannot help thinking that all these writers err. Dr. Gee groups all breathing-sounds into two groups—the vesicular and the bronchial—just as he does in the case of voice; and when we come to study his theory of the production of these, we find him saying—"The passage of the breath through the narrow mouths of the air sacs into the wider cavities beyond causes an inspiratory murmur." Dr. Da Costa gives diagrammatic illustrations of the causes which produce modified vesicular respiration. All look upon a certain respiratory sound as being produced in the air vesicles; and, indeed, practical men can hardly be expected to go right when physiologists go wrong; but if we reflect that, in ordinary respiration, a pair of lungs capable of containing (say) 350 cubic inches of air only change twenty-five with each breath, it is quite plain that these can never reach the pulmonary saccules. It is quite true that the motion of the particles of air introduced may communicate itself in part to those left behind in the lung, giving them a slight to-and-fro motion; but the interchange is by diffusion, just as the interchange of the air gases with the blood gases is by diffusion. Any motion of air in the air vesicles cannot strictly be called a breath motion; that can take place in the tubes alone.

So of the fine crepitation heard in the first stage of pneumonia. By many writers this is described to be the result of effusion into the air vessels. We cannot see that this is so. On the other hand, many things seem to strengthen Dr. Austin

Flint's view that it is due to a sticky condition of the walls of the smaller tubes, partially glued together on expiration, separating with a slight crackling on inspiration.

Here we might remark on one very useful feature of Dr. Da Costa's work—he gives many diagrammatic illustrations of the theoretic causation of abnormal sounds and conditions. These, though of little or no value to the experienced Practitioner, we have found of much use with students. Just as the earliest form of writing took the shape of hieroglyphics, so in teaching, whenever the actual conditions cannot be exhibited, it is better to appeal to the eye of the raw student by means of a picture, however rude, than to trust to his ear alone. We might say that certain of these diagrams of Dr. Da Costa have been made use of in elementary works in this country.

There is another *questio vexata*, connected with cardiac pathology this time, to which we might refer. What are the diagnostic and prognostic values of a basic systolic bruit? This is an exceedingly difficult problem. Many men, hearing a cardiac bruit, be it what it may, are too apt to rush to the conclusion that organic disease exists. Now, the majority of basic systolic bruits indicate no organic lesion—they are mostly hæmic; and it is important to be able to tell whether a given bruit is organic or non-organic. Dr. Gee says: "It is not allowable to diagnose an obstruction unless the murmurs be loud and long, and attended by active hypertrophy of the left ventricles, and by a pulse which is small, even when the heart is beating strongly." This is very good in its way; but with a contracted kidney, a hypertrophied heart, and the usual anæmia, most, if not all, of these criteria would be vain. On the whole, it is better to place it among the signs, not of especially evil augury; not to alarm the patient about it.

Finally, what do we think of these books? Dr. Da Costa's work is too firmly established, and its value too thoroughly recognised, to need a word *pro* or *con*, but the others are newcomers. Dr. Sawyer's is an excellent and judicious collection of facts, done by a man who knows his work. Dr. Gee's is more—it is the work of a man who has read much, who has seen much, and who has thought much. Not quite prepared *jurare in verba* of Dr. Gee, we confess to liking his book—much.

Manual of Human and Comparative Histology. Edited by S. Stricker. Vol. I. Translated by Henry Power, M.B. Lond., F.R.C.S., Ophthalmic Surgeon to St. George's (now of St. Bartholomew's) Hospital, Examiner in Physiology and Comparative Anatomy in the University of London. The New Sydenham Society. Pp. 600.

This work, edited by Stricker, and having as its contributors nearly all of the best names in Germany, is one well deserving attention, and constitutes, we think, a very valuable addition to the literary stores of the New Sydenham Society. The work itself is yet unfinished; it is intended to be made up of five parts, and of these the fourth has just made its appearance (many will regret that on its title-page the name of Cohenheim is to be seen no longer), and the fifth may be expected before long. Up to the time of this publication, Frey's was the best work on histology extant, and though in certain respects it may still retain the lead, especially as being a more convenient text-book, it can hardly be expected to compare with a work written by men, each dealing with his own especial subject, that on which he has been working.

The first two, and a small portion of the third, parts of this great work have been translated by Mr. Power for this volume, and we are bound to say he has done his work well, certain obscurities being due rather to the original than to Mr. Power's rendering.

The book begins with a chapter, by the editor, on the general methods of Microscopic Investigation—not quite of such a schoolboy character as those we sometimes encounter in English—dealing, in fact, with physiological research, instead of teaching to play at science. Next comes a chapter on *Cells*, also by Stricker. The word is one we can hardly hear or use with equanimity. It would be all very well if all men were equally informed as to what is meant by a cell nowadays, and how different men use it differently. But, then, this is not the case. First of all, Schleiden found that the tissues of vegetables were constructed on a common kind of plan; that in all essentials—the bricks, so to speak—of the building, resembled each other; and Schwann applied his doctrines to animal tissues also—the cartilage corpuscle being taken as a type. But investigations continued, and the doctrine became untenable. Animal cells were found without a special cell-wall; and Max Schultze gave us a new definition of a cell in consequence. But this was not all; for Brücke, in his turn, swept away another portion of the old supposed essential elements. He showed that a nucleus was unnecessary. And now we are here: a cell means a minute, structureless mass of protoplasm, as well as the well-defined bodies, with special coats, nucleus, and nucleolus; and there is a vast difference between the two. All this Stricker tells; but every one does not know it.

By connective tissues are nowadays meant not only the subcutaneous areolar tissue, the investing membrane of muscle, and such-like, but also cartilage and bone—in point of fact, blood ought to be included. These are well described by Rollett, though there is some little obscurity about his description of certain of the finer varieties of connective tissue. It is well to note that he recognises at least two sets of corpuscular elements in connective tissue, both of which take important parts in the process of inflammation—these are the connective tissue corpuscles, commonly so called, and certain other wandering amœboid bodies corresponding to white blood corpuscles.

The article on Nervous Tissue is from the pen of Max Schultze: he may be said substantially to follow Beale's views. In one important particular he differs from most writers in recognising as the ultimate nerve element not the ordinary medullated fibre, but a fibril so minute as only to be defined by a power of from 500 to 800 diameters; and this may be either medullated or non-medullated. He describes the ganglion nerve cells much as Beale does—many-rooted, but emitting only a single nerve-fibre, made up of many fibrils; as to its substance, partly fibrillar, partly nuclear and granular. (The Spinal Cord, the Brain, and the Sympathetic Nerve System, all by separate authors, is contained in the part just published in Germany.) The last words of this article are worth quoting in full: "No perfectly satisfactory conclusion can be said to have been yet obtained on this point (the cerebral termination of nerve fibrils), and it is even conceivable, according to my observations, that there is no actual termination of the fibrils in the brain or spinal cord; in other words, that all fibrils originate at the periphery, and thus only traverse the ganglion cells." This is worth thinking over.

A short article by Arnold on organic muscle follows. There is not much to be said about it, or about the next one, by Kuhne, on the termination of motor nerves. Here Beale's views have hardly received the attention they merit, which may be accounted for by the fact that Kuhne does not agree with him. Brücke follows with a very short account of the behaviour of muscular fibres when examined by polarised light. The characters of muscular fibre are finally considered in a chapter relating to the minute anatomy of the heart, by Schweigger-Seidel, wherein nerve distribution, etc., are considered, as well as the peculiar anastomosing muscular fibres.

The two succeeding articles are among the most interesting in the volume. The one relates to the minute anatomy of the bloodvessels, by Eberth; the other to the lymphatic system, by Von Recklinghausen. We do not think the plan adopted by the former author equal to that adopted by Frey, who, beginning with the simplest vessels, gradually carries the student to the most complex. Here tissues and layers are described separately. The article on the lymphatics is remarkably good. It is, indeed, to Frey and Von Recklinghausen we owe most of what knowledge we possess, and is worth calling knowledge, with regard to lymph vessels and glands, and it is to the system of staining adopted by the latter that we owe our knowledge of the serous cavities acting as lymph spaces. It is unfortunate that these authors differ somewhat in their descriptions of these organs, specially of the lymphatic glands, but in all essentials they seem to be at one. Closely allied with this subject is the structure and functions of the spleen. These are discussed by W. Müller, of Jena, in a short but interesting article, which immediately follows. Next come short chapters on the thymus and thyroid bodies respectively, by Klein and Verson; after which comes one on the blood, by Rollet. This article on the blood is an exhaustive one, entering into the changes induced in it by various reagents, etc. The portion relating to the structure of the red corpuscles is very interesting. Briefly, the latest conclusions are to the effect that a blood corpuscle consists of two portions—in point of fact, something like a living sponge, a kind of structureless, porous basis, corresponding to the portion of the sponge used for domestic purposes, and a substance permeating and enclosing that, as does the living matter of the sponge. The most curious thing noted with regard to the white corpuscles is their power of devouring portions of red corpuscles, which they are sometimes seen to entangle and enclose in their substance. This, of

course, upsets many of the notions entertained as to the transition of white to red corpuscles.

A long and exceedingly interesting chapter on the salivary glands, from the able pen of Pflüger, follows. We are sorry we cannot enter into its details, dealing with secretion generally, and the peculiar and well-known effects of nervous stimulation on the salivary, especially the submaxillary glands. The subject of tooth structure has, we fear, been too thoroughly worked to yield much that is original to Waldeyer, whose article on the subject comes next; but the author's admirable researches in embryology have enabled him to add to our knowledge of their development.

The final chapter, by Klein and Verson, deals with the intestinal canal. We are sorry our space forbids us to enter into a full discussion of its merits.

Herewith ends a volume in every way creditable to its authors, and one which should be a treasure to the members of the New Sydenham Society.

NEW BOOKS, WITH SHORT CRITIQUES.

Odd Showers; or, an Explanation of the Rain of Insects, Fishes, and Lizards, etc. Kerby and Son.

*** A curious little book, intended chiefly for young persons, to show "there is not a single phenomenon in nature, no matter how curious or uncommon, that cannot be explained by the well-known and unerring laws of natural and physical science."

Pocket Diagrams and Notes of Valvular Heart Disease. By Professor Harvey, of Aberdeen.

*** Here we have, for threepence, the very essence of the *rationale* of heart-auscultation and the tracings of the sphygmograph.

The Physicians' and Surgeons' Visiting List, Diary, Almanack, and Book of Engagements for 1871, upon a plan furnished to the publishers. By Francis Seymour Haden, Esq. 25th year. London: John Smith and Co., 52, Long-acre.

*** We have used this List so long, and praised it so often, that we really feel at a loss how to say anything fresh in commendation of it. Those Practitioners who once use it never give it up, and beginners will do well to make it their first outlay, no matter what branch of the Profession they follow. "Whenever visits have to be paid, hours kept, promises fulfilled, it is useful."

GENERAL CORRESPONDENCE.

PATHOLOGY OF CONTAGION.

Letter from Dr. G. Buchanan.

[To the Editor of the Medical Times and Gazette.]

Sir,—From the intention expressed in my former letter of not entering into scientific questions about the nature of contagion, I do not intend to be diverted by Dr. Beale's challenge to "come forward to support the fungous pathology generally." I wish to remain in the position which I understand Dr. Sanderson himself to occupy—of suspending my judgment on the whole subject until the investigation shall have been brought, as he desires, within the sphere of experimental pathology. And I would again beg your readers to examine Dr. Sanderson's report for themselves: to note where he is stating the views of others, and where his own; and to decide for themselves what care has been used in the examination of the subject, and what caution has been exercised in drawing conclusions. I am, &c., George Buchanan.

UNITY (?) OF SYPHILIS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I esteem myself fortunate to have been the means of eliciting (as I believe) from Mr. Morgan his admirable letter on syphilis, which appeared in your last number. I hope I may be permitted to put forth again some of the doubts and difficulties which beset me.

One thing seems clear, which is that the condition of the sore or pus-yielding surface, whence matter is taken for inoculation, has a great influence on the local effects that follow. For instance, I have read of inoculation with matter from a sore in the state of phagedæna which produced frightful ulcers. Conversely, it is very difficult to inoculate from a *quiet* hard sore. To get inoculable matter from a hard sore with certainty, you must *irritate* it. Moreover, there is the very remarkable statement made by Mr. Morgan, that the "continued influence of legislation" operates on the character of the disease. The influence of legislation, I presume, means seclusion and rest for the irritated female organs, cleanliness and disinfectants, and the *elimination of women with actual secondary syphilis*; insomuch that persons returning with soft sores from the Continent are less liable to be affected with secondaries than persons who catch the prevalent soft sore in Dublin.

Now, it is quite clear that severity of local symptoms is not a necessary antecedent to constitutional infection; for we daily see the typical hard sore—a mere irritated speck in the chink near the frænum—followed by severe constitutional syphilis.

Again we are led to believe that "legislative influence" can diminish both characters of sores—*i.e.*, local violence and constitutional disease. So that we clearly distinguish two elements in our minds—we can conceive of an ulcer following debauchery which is not "infective" (whether syphilitic or no), and a syphilitic inoculation which does not amount to an ulcer.

Now, we want facts, clinical or experimental, to show the effects of inoculation of sores which are clearly not syphilitic. I wish our humane and scientific Government would deliver up a batch of garotters, or wife-beaters, or baby-starvers, to a commission, who should be desired to create all sorts of artificial ulcers on these patients, *accentuate* these ulcers (as the French would say) with something poisonous—as the matter of Hospital gangrene, etc. (but not syphilitic)—and then try the inoculation of these artificial, non-syphilitic sores, side by side with that of soft chancre.

I remember, in Ricord, an account of some experiments of this sort on galley-slaves, which experiments have never yet, so far as I know, been cleared up or explained away.

London, December 3. I am, &c., A Student.

THE SCANDALOUS DOINGS AT EDINBURGH.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your leading article on "Sexualism in Edinburgh" is a lamentable exposition of folly or something worse on the part of men who ought to know better. As a member of the University Council, I wish to protest against the treatment the non-resident members experience in the matter of its meetings held twice a year. We have been clamorously called upon to give money and contribute of our time and labour to funds for endowing Fellowships, and for other university purposes, but we are not thought worthy the trouble or expense of being informed when these meetings will be held, and what business is to be transacted. The result is that they are nothing better than hole-and-corner meetings of Edinburgh advocates, W.S.'s, and ministers, with a sprinkling of Professors and Edinburgh Doctors, collected at a short notice, to be found in the Edinburgh papers only. It is not surprising, therefore, that so many as 100 members is considered a large meeting of a body numbering above 3000. Yet there are many, I am sure, who, like myself, would travel a long distance to support those members of the Medical Faculty (numbering only four!) who, from the reports in the Edinburgh papers, seem to have been the only speakers against this revolting experiment of a mixed Medical education at Edinburgh. But why cannot members be allowed to vote by voting papers, as for their representative in Parliament? What business has the Senatus or any other body to admit women to even unmixed classes or to matriculation at all, without the full and deliberate approval of the whole Council?

More blameworthy are the doings of the Senate composed of the Professors. It was not their fault that this experiment was happily made in the literally *corpore vili* of Dr. Handyside's class, for it is a matter of boast of these unpleasant female students and of their friends at a distance that the majority of the Professors approve of their conduct. It appears that they are treated as privileged persons, having their enthusiastic supporters in the Senate itself, who actually receive them privately at their houses, discuss the business of the Senate and Council with them, and help them, at least, to write leaders and letters for the newspapers, preparatory to discussions on their topic in those bodies. They boast, too, that the large majority of the Senate in their favour includes nearly the whole of the Faculties of Theology(!) and Arts. They say, further, that the opposition of three-fourths of the Medical Faculty is merely due to narrow Professional prejudice, since the Professors of Botany and Chemistry, not being engaged in prac-

tice, are their warm supporters, together with Dr. Bennett, whose liberality, however, they acknowledge is somewhat equivocal. What is said and done at the meetings of the Senate or privately at the houses of its members, can only be guessed at, but to draw a conclusion thereupon from what is said publicly, queer things they are. I find from an old copy of an Edinburgh newspaper lying by me, that when Mr. Masson, Professor of Rhetoric, brought forward his motion for mixed classes, and affirmed that the general objection to them "was an entire bugbear; did not men and women go to church together?" Dr. Laycock, in reply, said, "what he wanted to point out to the Council was that there were questions brought before the Medical Profession which required to be handled with the greatest delicacy in the interests of public morals, and that in carrying out that education in the way proposed by Professor Masson they would be inflicting a serious injury on society." Mr. Masson's reply to this argument and its supporting facts is very significant of at least *his* doings in the Senate and privately. He "*was perfectly familiar* with the whole train of zigzag sentiment and assertion, and *was in the habit* of calling it Laycockism." Such is the blackguard style of rhetoric which is current behind the scenes at Edinburgh, certainly on a par with the pudendal exercitations you have so justly shown up. I can hardly suggest a remedy for this state of things. The most obvious is that the Edinburgh University Club should discuss the whole question in the interests of their *alma mater*.

I am, &c.,

A Member of the Edinburgh University Council and University Club.

London, December 5.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, November 2.

Dr. Tilt, Vice-President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Alexander Henderson, L.F.P.S. Glas., Glasgow; Francis William Smith, M.D., Dorchester; Samuel Harrison Wheatcroft, L.R.C.P., Sheffield.

Dr. Wiltshire exhibited an Infant, aged 3 weeks, presenting a remarkable example of the so-called "mother's marks," the whole of the right arm being black and hairy, and similar patches, of various sizes, being scattered over the body. An elder brother of the child had webbed fingers. As is usual in such cases, the mother attributed the deformity to a fright during gestation.

Dr. Hall Davis reported a case of Extra-Uterine Gestation, of the left ovarian variety, occurring in the third pregnancy of a married woman, 39 years of age. When first seen, the physical signs induced him (Dr. Davis) to suppose that it was a case of retroverted uterus containing a fœtus, and attempts at reduction were made. On the same evening violent vomiting took place, and the swelling in the posterior part of the pelvis was found to have disappeared, and in its place was what seemed to be an empty sac. On abdominal examination, the hard head of the child was felt in the right lumbar region, apparently immediately under the abdominal wall, and below it another, but smaller, prominence. It was not movable, and there was no constitutional disturbance. Dr. Davis was firmly of opinion that the child had escaped by rupture into the abdominal cavity and during vomiting. It appearing to him that abdominal section and removal of the child was indicated, he proposed a consultation, the result of which was that his diagnosis was not supported, and, therefore, the operation was not performed. The patient died on October 28, the sixth day after rupture. The autopsy confirmed the diagnosis of the escape of the child into the abdominal cavity, and proved that the pregnancy had been an extra-uterine, and not a uterine gestation. Dr. Davis considered that the only chance of saving the patient, although it might be a remote one, would have been abdominal section and removal of the child, as also of the cyst with its placenta and the effused blood.

Dr. Wiltshire asked if the uterine sound had been used, as it fairly might have been in such a serious case. He mentioned a case of supposed extra-uterine fœtation which was under his own observation. He regretted that gastrotomy had not been resorted to in this case, for, as far as he was able to judge, no unsurmountable difficulties would have been met with, and the patient would have been afforded a chance of recovery, which otherwise she had not.

Mr. J. B. Walker exhibited a Placenta that had been retained in utero for two months, without hæmorrhage or fetid discharge.

Dr. Murray, who had seen the case with Mr. Walker, said that at first he had been able to introduce the finger into the uterine cavity, but that no part of the placenta had been felt. The umbilical cord had come away without traction, almost immediately after the finger had been introduced. The patient having lost no blood whatever, and feeling perfectly well, Dr. Murray agreed with Mr. Walker that it would be better to watch the case closely and wait upon the least occurrence of bleeding, rather than to dilate the os uteri, and again seek for the placenta. Dr. Murray feeling sure that the placenta must have been firmly and completely adherent, considered, under the circumstances, that the removal would, in all probability, have resulted in leaving portions of the mass behind, which would hence have caused frequent hæmorrhage and, perhaps, septicæmia.

Dr. Martyn read a paper "On the Management of Childbirth, with a view to promote Successful Suckling." The author commenced by describing the causes which often interfered with efficient suckling, and described at length his views on the etiology of milk-fever. He then enumerated the best means of treating puerperal patients with regard to this point, and insisted especially on the usual practice of putting the child to the breast immediately after delivery being a bad one. He maintained that the child should not attempt to suckle until the secretion of milk had been thoroughly established.

Dr. Thomas Ballard said that, ten years ago, he had invited attention to the importance of not allowing the child to be put to the breast until the third day after delivery, and had endeavoured to prove that the feverishness which the author indicated, and the more severe forms of milk-fever, are mainly caused by the practice, which he regretted was still generally taught—that of putting the child to the breast a few hours after birth. The reasons for doing so are not valid. The principal one, that of producing uterine contraction, and thus arresting hæmorrhage, does not often apply, because the accoucheur would usually satisfy himself on this point before he left the patient, and, consequently, before the nurse had prepared the child to go to the mother. That of the child getting colostrum to purge away the meconium is a misconception. No milk is secreted for sixty hours, and the irritation of the child's bowels caused by early sucking is the result of its sucking at a breast which yields nothing (fruitless sucking), and not of its swallowing a fluid possessing a cathartic property. He (Dr. Ballard) hoped that this mythic theory about colostrum would soon disappear.

Mr. Coward, of Christchurch, New Zealand, read a paper "On a Case of Inversion of the Uterus." This occurred in a primipara, 22 years of age. The labour was normal, and the inversion took place suddenly, when only gentle traction was being made on the cord. The inversion was at once reduced, the placenta, which was still attached, having been first removed. The patient made a good recovery. In the latter part of his paper, Mr. Coward especially insisted that traction on the cord was but the usual cause of this accident.

Dr. Madge also read a paper "On a Case of Inversion of the Uterus." This happened in a primipara, whose labour was quite natural. After delivery the nurse was making firm pressure on the uterus, when inversion suddenly took place. Dr. Madge first peeled off the placenta, and then reduced the uterus without much difficulty. The patient made an excellent recovery.

Mr. Braxton Hicks said that in the cases of inversion he had seen there had been no traction by the Medical man on the cord. In one case the patient had not been touched, as the placenta had been expelled spontaneously before the attendant's arrival; and in another it occurred immediately on the delivery of the child by the forceps, in a case of inertia of the uterus. He thought that a short funis in many cases would be sufficient to commence the action if the fundus were flaccid. In answer to Dr. Madge's objection, he (Dr. Hicks) considered that the marginal attachment, coupled with the atmospheric pressure, would be amply sufficient to cause a cupping of the fundus, and thus commence the process.

Dr. Hall Davis believed that we must admit two classes of cases of inversion of the uterus occurring in connexion with labour. Firstly, those resulting from traction on the umbilical cord, however applied, the placenta being as yet attached to the fundus of a relaxed uterus; or during the completion of the second stage of labour, the advancing child

dragging on a short cord, as explained by Dr. Hicks; or, again, during the sudden birth of the child, the parturient being in the erect position. Secondly, those cases in which the displacement was the effect of an inverted action of the muscular fibres of the uterus, quite independent of, and often in the absence of, the attendant. The latter class of cases he held to be the most frequent; such, at least, was his experience.

A paper was read by Dr. Tracy, of Melbourne, entitled, "A Short Description and History of the Lying-in Hospital and Infirmary for Diseases of Women and Children at Melbourne, with some account of what has been done in it." Dr. Tracy's paper consisted of a minute description of the building and its elaborate arrangements for the safety and comfort of the patients, and concluded with an account of the principal operations performed in it.

Dr. Martin, of Melbourne, said that, as one of Dr. Tracy's colleagues, he would take the opportunity of stating that Dr. Tracy was entitled to the highest credit for his performances in obstetric Surgery at the Antipodes. With none of the advantages available in the older countries, Dr. Tracy had always been a watchful observer of whatever was worthy of notice in the reports of scientific progress, and has made himself, as it were, a pioneer of obstetric Surgery in Australia, leading the way with remarkable skill and signal success in the performance of all the great operations. As regarded the report of the Hospital just read, he (Dr. Martin) would assure the Society that in construction, management, and success in working, that institution would bear comparison with any other of the kind in any country.

Mr. Lennox Browne desired to bear testimony, from the experience of several visits, when in Melbourne, seven years ago, to the excellence—he might almost say perfection—of the arrangements of Dr. Tracy's Lying-in Hospital. He had twice witnessed Dr. Tracy perform ovariotomy, as well as several other obstetric operations, and he was astonished to see how, from the perusal only of the writings of workers in this Society, and without the guide of personal teaching, Dr. Tracy operated according to the very latest improved methods, and with at least equal success. He thought the Society was to be congratulated no less than Dr. Tracy, in that it was shown of how great use were the printed *Transactions* to those Fellows unable to associate in person.

A paper was read by Dr. Geo. Mendenhall, Professor of Obstetrics in the Miami Medical College, Cincinnati, "On the Mortality in the Lying-in Ward of the Cincinnati Hospital." Dr. Mendenhall's paper gave an interesting account of an outbreak of puerperal fever, the source of which was traced to defective ventilating arrangements, by which a current of air from a Surgical ward was led into the lying-in ward. As soon as this was remedied the mortality ceased.

OBITUARY.

JOSEPH CHOLMONDELEY, M.R.C.S.,

died last week, at the advanced age of 76. He had been in practice for upwards of fifty years, and continued in harness to the last, or until a few weeks of his death. During the greater part of his Professional life he lived in Nottingham-place. He had a very extensive practice, chiefly obstetric, and was formerly Lecturer on Diseases of Women and Children at the Aldersgate-street Dispensary. Mr. Cholmondeley belonged to a class of Practitioners which is rapidly disappearing from the scene. He practised generally, but did not dispense his own medicines. He had good common sense, with moderate acquirements, and was plodding rather than brilliant. For upwards of forty years he was to be seen daily in the London streets and in the outskirts of London in an open yellow carriage, drawn by two small cream-coloured horses, and always driving at exactly the same pace—say seven miles an hour. Winter or summer, he never changed the open for the closed carriage. He worked very hard for a very long period, and looked well to within a few weeks of his death. He contributed little to the literature of the Profession.

Notwithstanding his very extensive practice, Mr. Cholmondeley found leisure to pursue his favourite amusement. He was a good artist, and, whenever an opportunity offered, had his brush in his hand. He painted a considerable number of pictures.

Lunacy in Australia.—There are 1705 persons in the various lunatic asylums of Australia.

MEDICAL NEWS.

University Intelligence.—Cambridge (Michaelmas Term, 1870).—The following gentlemen were examined and approved:—

First Examination for M.B. Degree.

Alford, M.A. St. John's.
Bennett, B.A. Trinity Hall.
Hood, Gonville and Caius.
Moore, B.A. St. Catharine's.
Rockliffe, Jesus.
Stirling, B.A. Trinity.

C. Trotter, T. W. Danby, } Examiners.

Third (Final) M.B. Examination.

Brailey, B.A. Downing.
Image, M.A. Trinity.
Johnson, B.A. Jesus.
Underhill, B.A. Gonville and Caius.
Winslow, M.A. Downing.

H. J. H. Bond, G. E. Paget, Edward Liveing, } Examiners.

Royal College of Physicians of London.—On December 6, the following gentleman passed the First Professional Examination:—

Moore, John Bartholomew Giles Gidley, St. George's Hospital.

Royal College of Surgeons.—The following Members of this institution having undergone the necessary examinations for the Fellowship on the 23rd, 24th, and 25th ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and, at a meeting of the Council on Thursday, the 8th inst., were admitted Fellows of the College, viz.:—

Dalby, William Bartlett, M.B., Cantab., Sackville-street, Piccadilly, diploma of Membership dated May 22, 1867, of Paris, Cambridge, and St. George's Hospitals.
Manby, Frederic Edward, L.S.A., King-street, Wolverhampton, January 23, 1866, of Guy's Hospital.
Nettleship, Edward, L.S.A., Finsbury-pavement, November, 17, 1868, of King's College.
Rouch, James Ryall, L.R.C.P. and L.S.A. Lond., Norfolk-street, Strand, May 5, 1868, of St. Bartholomew's Hospital.
Roy, Gopaul Chunder, L.M. and S. Calcutta, Grosvenor-park, Camberwell, March 4, 1870, of the University of Calcutta.
Stanger, William, L.S.A., Nottingham, January 23, 1867, of Guy's Hospital.
Wrench, Edward Mason, L.S.A., Baslow, Derbyshire, July 17, 1854, of St. Thomas's Hospital.

Four candidates out of the eleven examined failed to acquit themselves to the satisfaction of the Court, and were therefore referred to their Hospital studies for twelve months. The examination which has just taken place presents a feature of unusual interest to the Profession, and, indeed, to the public generally, inasmuch as it furnishes the first instance of the admission of a native Indian gentleman to the Fellowship. Mr. Gopaul Chunder Roy is, we believe, nearly related to Gopaul Chunder Sen, the apostle of the new Indian religion, who lately visited this country.

At the above meeting of the Council, the following Members having been elected Fellows of the College at previous meetings, were admitted as such, viz.:—

Marshall, Peter, Bedford-square, diploma of membership dated March 28, 1828.
Mayer, John Emilius, of her Majesty's Indian Army, January 18, 1833.

The following Members of the Royal College of Surgeons having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board on the 7th inst.:—

Huggins, Samuel Tillcott, L.S.A., Banbury, Oxon, diploma of Membership dated November 17, 1870, of St. Bartholomew's Hospital.
Robinson, John Desborough, Lyston, Leicestershire, July 27, 1870, of the Charing-cross Hospital.
White, Barrington Syer, L.S.A., Lavenham, Suffolk, November 18, 1870, of King's College.

Three other candidates having failed to acquit themselves to the satisfaction of the Board, were referred to their obstetrical studies for the usual period.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, December 1, 1870:—

Claridge, William, 51, Brook-street, W.
Duke, Bernard, Littlehampton.
Newton, Charles John, Alconbury-hill.
Smith, Samuel, Clifton, Bristol.

The following gentlemen also on the same day passed their First Professional Examination:—

Langdale, Henry Marmaduke, Guy's Hospital.
Power, George Edward, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Goss, Tregenna Biddulph, M.R.C.S., L.S.A.—Medical Officer to H.M.'s Post-office, Bath.

Harding, T. H. G., 19, Park-square, Regent's-park—Dental Surgeon to the Dental Hospital of London, 32, Soho-square, W.

Lomax, H. S., M.R.C.S. Eng.—Surgeon to the Staffordshire General Infirmary, *vice* R. Hughes, Esq., F.R.C.S., appointed Honorary Consulting Surgeon.

Moore, J. W., M.B., Ch.M. Dub., L.K.Q.C.P.I.—Physician to the Molyneux Asylum for Blind Females, Dublin.

Stevens, Mr.—Dental House-Surgeon to the Dental Hospital of London, 32, Soho-square, W.

MILITARY APPOINTMENTS.

Royal Artillery.—Staff Surgeon John Ogilvy, M.D., to be Surgeon, *vice* Surgeon-Major John Irvine, M.D., appointed to the Staff.

36th Foot.—Staff Assistant-Surgeon David Arthur Leslie, M.D., to be Assistant-Surgeon, *vice* James Henry Reynolds, M.B., appointed to the Staff.

41st Foot. Staff Surgeon Curtiss Martin, to be Surgeon, *vice* Samuel Black Roe, M.B., appointed to the 92nd Foot.

92nd Foot.—Surgeon Samuel Black Roe, M.B., from the 41st Foot, to be Surgeon, *vice* Alexander Clarke Ross, M.D., appointed to the Staff.

Medical Department.—Surgeon-Major John Irvine, M.D., from the Royal Artillery, to be Staff Surgeon-Major, *vice* Staff Surgeon John Ogilvy, M.D., appointed to the Royal Artillery; Surgeon Alexander Clarke Ross, M.D., from the 32nd Foot, to be Staff Surgeon *vice* Staff Surgeon Curtiss Martin, appointed to the 41st Foot; Assistant-Surgeon William O'Byrne White, Supernumerary in the 1st Foot, to be Staff Assistant-Surgeon, *vice* William Taylor, M.D., appointed to the Royal Artillery; Assistant-Surgeon James Henry Reynolds, M.B., from the 36th Foot, to be Staff Assistant-Surgeon, *vice* David Arthur Leslie, appointed to the 36th Foot.

BIRTHS.

Braden.—On November 29, at Lewes, the wife of J. G. Braden, Surgeon, of a daughter.

Joyce.—On December 1, at the Parsonage-house, Rolvenden, the wife of Thomas Joyce, M.D., of a daughter.

Little.—On October 19, at Shanghai, the wife of Louis Stromeyer Little, M.D., of a son.

Owen.—On December 2, at 4, Sussex-terrace, Southsea, Hants, the wife of A. Lloyd Owen, B.A., M.B., of a daughter.

cott.—On December 6, at Belfast, the wife of R. R. Scott, Surgeon, 80th Regiment, of a daughter.

MARRIAGE.

Williams—Bindley.—On December 6, at Edgbaston, Joseph Powell Williams, of the Surveyor's Department, General Post-office, to Anne Elizabeth, eldest daughter of Samuel Allen Bindley, F.R.C.S., of Edgbaston.

DEATHS.

Bindley, Frank Lane, M.R.C.S.E., J.P. and Coroner for the District of Kilmore, formerly of Burton-on-Trent, Staffordshire, at Kilmore, Victoria, Australia, on September 26, aged 40.

Bryant, William Hickes, M.R.C.S.E., son of the late Richard Jennings Bryant, Esq., of Gascoyne-place, Plymouth, at Somerset-street, Portman-square, on December 4, aged 80.

Cholmondeley, Joseph, M.D., 3, Nottingham-place, Regent's-park, on November 25, in his 76th year.

Copland, Frances, the wife of Oswald Copland, Surgeon, of Chelmsford, and daughter of the late John Alliston, Esq., of Russell-square, London, on December 4, deeply lamented.

Davies, Thomas, Surgeon, at Snettisham, near King's Lynn, Norfolk, on November 21, aged 68.

Harvey, Henry, Surgeon, at 6, Eldon-square, Newcastle-upon-Tyne, on December 4, aged 58.

Lawrence, James Bell, the youngest child of James E. Lawrence, Surgeon, Wandsworth, on December 4, of diphtheria.

Murphy, Eliza Josephine, the beloved wife of J. B. Murphy, M.D., of Southey Lodge, Iver-heath, Bucks, at Brighton, after a few days' illness, in the 31st year of her age, on December 3.

Pitman, Prudence Maria, wife of Henry Pitman, Surgeon-Major Indian Army, Bombay, on November 30, at Berwardine, Worcester.

Robertson, Dalrymple Kinloch, M.D., elder son of James Scott Robertson, Esq., C.B., at Pau, Basses Pyrenees, of consumption, on October 30.

Stuckey, George, M.R.C.S., at 4, Cavendish-crescent, Bath, on November 29, aged 66.

Webb, Alicia, the beloved wife of Dr. J. Craske Webb, at 14, Lower Belgrave-street, Eaton-square, after four days' illness, on December 6.

Wood, William, M.R.C.S., of 35, Trinity-square, and 54, Union-street, Borough, after a few days' illness, on December 4.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Birmingham General Dispensary.—Resident Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before December 28.

Birmingham and Midland Free Hospital for Sick Children.—Acting Physician; must be a Graduate in Medicine of a British University recognised by the Council of Education and Registration, or F. or M.R.C.P. Lond. Applications and testimonials to the Medical Committee on or before December 23.

Evesham Union.—Medical Officer for the Third District; candidates must be duly qualified and registered. Applications and testimonials to John W. Adams, Esq., Clerk, on or before December 12.

Guisborough Union.—Medical Officer for the Danby District; candidates must be duly qualified and registered. Applications and testimonials to Wm. Weatherill, Esq., Clerk, on or before December 13. Election the same day.

Hackney Union.—Dispenser; must thoroughly understand his duties, and produce unexceptionable testimonials. Applications to Mr. John Godwin, Clerk to the Guardians, on or before December 14.

Liverpool Dispensaries.—Assistant Resident House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before December 27.

Manchester Royal Infirmary.—Senior House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Weekly Board on or before December 10.

Metropolitan Free Hospital.—Honorary Surgeon; must be F.R.C.S. Eng., or pledged to become such within twelve months, if elected. Applications and testimonials to the Committee of Management on or before December 15.

Preston and County of Lancaster Royal Infirmary.—House-Surgeon; must be duly qualified. Applications and testimonials to Mr. R. F. Easterley, Secretary, on or before January 2 next. The duties will commence on February 7.

St. Pancras Parish.—Medical Officers required for eight districts of this parish. Candidates must have the qualifications prescribed by the orders of the Poor-law Board. Applications to be made on printed forms, which can be obtained at the Clerk's Offices, Vestry-hall, St. Pancras, N.W., on or before December 12. Information respecting the extent, etc., of the districts can be obtained at the offices, as above.

Stamford, Rutland, and General Infirmary.—House-Surgeon, Apothecary, and Secretary; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Chairman of the Committee of Management on or before December 31.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Keighley Union.—The Bingley District is vacant; area 9614; population 12,204; salary £50 per annum.

Steyning Union.—Mr. F. Maury has resigned the Fourth District; area 12,641; population 2799; salary £56 per annum.

APPOINTMENTS.

Bishop Stortford Union.—John G. Christian, M.R.C.S. Eng., L.S.A., to the Pelham District.

Cockermouth Union.—John Robertson, L.R.C.S. Edin., M.D. Univ. Edin., to the Second Cockermouth District.

Kingston Union.—Robert Skimming, M.D. Univ. Edin., L.R.C.S. Edin., to the Mouldsey District.

Leicester Union.—John Oliphant, M.D. Edin., L.R.C.P. Lond., M.R.C.S. Eng., to the Third District.

Poole Union.—William Turner, M.R.C.S. Eng., L.S.A., to the First District.

Metropolitan Asylum District.—Thomas C. Shaw, M.D. Lond., B.A. Lond., M.R.C.P., M.R.C.S.E., L.S.A., to the Asylum for Imbeciles at Leavesden.

Medical Club.—Notices have been sent out for the next dinner of the Club, to be held on Tuesday, the 20th inst. Dr. Lory March will take the chair upon the occasion.

The Hunterian Oration.—Sir William Fergusson, Bart., F.R.S., President of the Royal College of Surgeons, will deliver the biennial oration in memory of John Hunter, in the theatre of that institution, on Tuesday, February 14 next.

Arts Examination. — At the ensuing preliminary examination in Arts, etc., for the diplomas of Fellowship and Membership of the Royal College of Surgeons, it is stated that 88 candidates have entered their names for the first-named distinction, and 237 for the latter, making a total of 325.

Vaccination.—Mr. Wm. Fox, a "Medical Botanist" and a member of the Sheffield Board of Guardians, has been fined 20s. and costs by the Sheffield stipendiary magistrate, for having neglected to have his child vaccinated.

Westminster Hospital Medical School. — Dr. Basham having resigned his lecturership in Medicine, after a tenure of office of twenty-two years, Dr. Anstie has been elected to that chair. The lectureship in Materia Medica vacated by Dr. Anstie will be filled by Dr. Sturges. Dr. J. C. Lee, of Caius College, Cambridge, will be the new lecturer in Forensic Medicine.

The census for England and Wales in April next will be taken by Major Graham (the Registrar-General), Dr. Farr, and Mr. J. T. Hammick, with Mr. W. Clode acting as secretary. The Commissioners for Ireland are Mr. Donnelly (Registrar-General), Sir W. Wilde, and Dr. Abraham.

NORTH STAFFORDSHIRE MEDICAL SOCIETY. — The eighteenth annual meeting of this Society took place on Thursday, December 1, at the North Staffordshire Hotel, Stoke-on-Trent; Mr. Jno. Alcock, Burslem, delivered the annual address. Mr. Chas. Orton, Newcastle-under-Lyne, was elected President for the coming year; Mr. Yates, Newcastle, Treasurer; and Mr. J. M. Taylor, Burslem, Honorary Secretary. The committee appointed consisted of the following gentlemen :— Messrs. Gamer, Ashwell, Spanton, Goodall, and Weaver. There are thirty-six members of the Profession now in the Society, and the meetings during the past year have been well attended. The anuual dinner is to take place on the 15th inst.

ROYAL INSTITUTION OF GREAT BRITAIN. — The following are the lecture arrangements for the ensuing season : — Professor Odling, M.B., F.R.S. — Six lectures, adapted to a juvenile auditory, on Burning and Unburning, on December 27, 29, 31, 1870, January 3, 5, 7, 1871. *Before Easter*, 1871 ; Professor Michael Foster, M.D., F.L.S.—Eleven lectures, on the Nutrition of Animals, on Tuesdays, January 17 to March 28. Professor Odling, F.R.S.—Eleven lectures, on Davy's Discoveries in Chemistry, on Thursdays, January 19 to March 30. Rev. W. H. Channing, M.A.—Four lectures, on the Progress of Civilisation, on Saturday's, January 21 to February 11. Professor Jowett, M.A., Master of Balliol College, Oxford.—Three lectures, on Socrates, on Saturdays, February 18, 25, and March 4. H. O'Neil, Esq., R.A.—Four lectures, on the Spirit of the Age, on Saturdays, March 11 to April 1. *After Easter*, 1871 :—Professor J. J. Sylvester, M.A., LL.D., F.R.S.—Three lectures, on Emanuel Kant, on Tuesdays, April 18, 25, and May 2. Charles Brooke, Esq., M.A., LL.D., F.R.S.—Two lectures, on Force and Energy, on Tuesdays, May 9 and 16. Rev. Professor Haughton, M.D., F.R.S.— Three lectures, on the principal of Least Action in Nature, on Tuesdays, May 23, 30, and June 6. Professor Tyndall, LL.D., F.R.S.—Eight lectures, on Thursdays, April 20 to June 8. Joseph Norman Lockyer, Esq., F.R.S. — Eight lectures, on Astronomy, on Saturdays, April 22 to June 10.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

W. Blanford.—It is impossible to say how soon the arrangements will be completed.

Mr. Reed, Pentridge, Victoria, Australia.—Your letter, with enclosure, has come safely to hand. We are pleased to hear that you receive the papers regularly.

P. S. Q.—Under the circumstances, two guineas would be a reasonable fee.

B. C.—In our next impression.

York can assume the title of Doctor.

Lector.—In any of the elementary works on Surgery.

Studens.—The session will count.

Stat nominis umbra.—The author certainly was not known ; various conjections were entertained on the subject, most of them on very insufficient grounds.

Lex.—Weightman on the Laws of the Medical Profession.

Absinthe no doubt contains some deleterious mixture, but is not so injurious as some have stated.

Deus.—The dental diploma question, partly reprinted from the *Journal of Dental Science*, by Charles James Fox, has been published in a separate form, and in the shape of a pamphlet. This may be regarded as a complete *résumé* of the subject to the present date.

St. Bartholomew's.—The statement is quite correct. Mr. Skey was kept out of office for some years by Mr. Abernethy. At the period specified in the paper, a fierce war was kept up for some time, in which the principal actors were Mr. Abernethy, Mr. Stanley, and Mr. Skey. Mr. Skey was treated with great injustice, and though he was subsequently elected Assistant-Surgeon to the Hospital, he derived no emolument from it. After thirty years' hard and valuable service, he obtained the appointment of Surgeon, only to retire from this at the expiration of three or four years.

A CURIOUS EPITAPH.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you find a nook for the following singular epitaph, to be seen on a tombstone in the churchyard of St. Helen's Hospital, Norwich :—"In Memory of Mrs. Phœbe Crew, who died, May 26, 1817, aged 77 years, who, during forty years practice as a midwife in this city, brought into the world nine thousand six hundred and thirty children." This is at the rate of about twenty a month—not bad practice. Surely our greatest accoucheur never equalled this ! I am, &c.

CHARLES WILLIAMS, F.R.C.S.

9, Prince of Wales-road, Norwich, Nov. 29.

SHALL PARISH SURGEONS BE OFFICERS OF HEALTH ?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the report I have seen in some newspapers, as well as in the *Medical Times and Gazette*, of the late meeting of the Poor-law Medical Officers' Association, there is the proposition for making Poor-law Medical Officers deputy Medical Officers of Health. This proposition I beg to call in question. I do so, assuming, in the event of alterations, our relationship to the public will be the same as it at present is, as regards practice. If we are made Health Officers, having to inspect and report in any way, our duties must jar with our interests. Our weekly reports, even as they are at present, would be ample for all we, as Medical men, can do; they point out disease : they should, however, be complete, and represent all the pauper illness treated—not less than half of it, as, I can answer for it, is now sometimes the case. The duties of the authorities to whom we report commence where ours end : they are the sanitarians, not us. We are Medical Practitioners, pure and simple, and must be so, unless the changes made are so sweeping, and the remuneration given us is so ample, that private practice is made quite secondary to our appointments—then our duties can be altogether recast. I am, &c.,

Sussex, December. A PARISH SURGEON.

MEDICAL CHARGES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As the question of remuneration for Medical services is at present being much discussed, will you kindly give me your opinion in the following case :—

Some months ago, I attended (in conjunction with a neighbouring Practitioner) a member of the family of a country gentleman of high position, whose income is, at least, from £10,000 to £15,000 a year. The patient was very seriously ill (the result of an accident) for a considerable time. I was in constant attendance, day and night, for a fortnight, and every alternate day and night for a fortnight more, and paid about thirty visits in all. The attendance was of the most fatiguing and anxious nature, and included numberless consultations, some of them with Hospital Surgeons from a great distance. I charged five guineas a day, two and a half guineas a night—*i.e.*, seven and a half guineas for twenty-four hours (often nearer thirty), and one guinea a visit, ordinary or express. My residence is six miles from the patient's house, and though my partner did much of my work at home, he was unable to overtake the whole of it, consequently some was lost, and he was very much overworked. I may mention that most of my visits were made at the patient's own time, and not at mine, and that when I was not detained more than two or three hours I made no extra charge. The patient recovered.

Do you consider my charges just and reasonable for a patient in the position I have indicated, bearing in mind the extreme gravity of the case ?

November 28. I am, &c. F.R.C.S.E.

*** Under the circumstances, our correspondent's charge was by no means excessive.—ED. *M. T. and G.*

REMINISCENCES OF AN OLD CUPPER.

St. Vitus's Dance.—Dr. Gillespie, of Edinburgh, many years ago sent me to a young lady, Miss S—, who had been for a long time a martyr to the above distressing complaint. It affected her in a most singular manner : the head wagged from side to side like the pendulum of a clock incessantly, and any attempt to hold her was attended with the most violent and distressing paroxysms. For days blindness would ensue, as she had no power to raise the eyelids. She was perfectly sensible, and was aware of her infirmity. Cupping on the temples was what Dr. Gillespie wished, and I procured a guard razor to shave the temples, but I found it impossible, on account of the motion of the head. By the Doctor's direction, I cupped her on the nape of the neck, taking sufficient blood to cause syncope, and while in that state the head became perfectly still, and I then took a small quantity of blood from the temples, which restored the sight; the head ceased its motion, and she was convalescent for some time afterwards. When she was subsequently similarly affected, the same process was repeated, and I cupped her above fifty times in two years, and she ultimately completely recovered, and was married and had a family, and for all I know may be alive still.

From the Jaws of Death.—In the year 1827, I held the appointment of Cupper to the Royal Infirmary, at Edinburgh. One day, when returning from the Institution, I came upon a crowd of people opposite the shop of Messrs. Pugh and Plews, chemists, in Princes-street. I inquired the cause, and the reply was, "A mon's dropped dead i' the street." I elbowed my way through the people, and in the parlour beyond the shop I saw a gentleman lying upon the sofa without motion, and to all appearance dead. I pressed my finger very hard over the temporal artery, when I detected the very slightest pulsation—indeed, it was almost imperceptible. I immediately shaved both temples, and applied the cupping glasses, and I was delighted to see the blood flow freely. Dr. Abercrombie (who had been sent for) arrived in a few minutes, and his first exclamation was, "Mr. M—— here ! most providential ! if blood had not been taken instantly the man was gone ; " and then to me he said, "Go on till I return." The Doctor returned in about a quarter of an hour, and I had nearly filled a wash-hand basin with blood. He was a Mr. R. P——, of Drummond-place. I cupped him twice more in the next forty-eight hours, and he lived for fourteen years after his apoplectic attack, and I cupped him occasionally when he felt any symptoms of giddiness.

The Author of "Waverley."—I have had the honour of taking a monarch's blood, and the blood of dukes, marquises, and lords without number, but I felt the honour of cupping Sir Walter Scott to be as great an honour as I could have in my Profession. During the long period I was cupper in Edinburgh, I often said I should so like to operate upon Sir Walter Scott, for I wished to have the pleasure of conversing with him; and I was at length gratified, after seven years' residence in that city. I was sent for one morning, in February, 1831, to take sixteen ounces of blood from Sir Walter Scott, at Mackenzie's Hotel, Princes-street. When entering his room, the dear old gentleman looked very comfortable, before a blazing fire, and the breakfast apparatus on the table. He asked me to breakfast with him, which I declined, having already breakfasted, and I advised him to have the blood taken before eating. He had had slight symptoms of paralysis. He was much pleased with my performance and (as he said) the trifling inconvenience I caused him by the operation, which only lasted a few minutes. He made the observation that his lame foot might be the cause of his malady ; but he was in his 69th year, and had had an enormous quantity of brain work, as well as anxiety of mind and much trouble. He was a most kind and gentle-spoken man, and I was very much gratified by spending at least an hour in his company.

COMMUNICATIONS have been received from—

Dr. Letheby; Dr. Fayrer; Mr. F. T. Proctor; Mr. Lomax; Dr. A. Lloyd Owen; Mr. J. B. Curgenven; Messrs. John Smith and Co.; W. F. Teevan; Mr. E. Chapman; Colonel A. Lane Fox; Messrs. Asher and Co.; Mr. W. Blanford; Mr. Robert Jolly; A Parish Surgeon; Dr. Phillips; Mr. J. Chatto; Dr. Macpherson; Dr. Ogle; Dr. Moxon; Dr. Barclay; Mr. J. M. Taylor; Mr. Baddeley; Mr. Bewley; Messrs. Groombridge.

BOOKS RECEIVED—

Patents and Patentees from 1854 to 1866, both inclusive, also for the Years 1867 and 1868, by William Henry Archer, Registrar-General of Victoria—Abstracts of Specifications of Patents applied for from 1854 to 1866, by William Henry Archer, Registrar-General of Victoria—New South Wales Medical Gazette, No. 1, October, 1870—Transactions of the Odontological Society of Great Britain, vol. iii., No. 1—Some Remarks on the Mode of Admission to our Medical Charities, by J. Thorburn, M.D.—Fourth Annual Report of the Fife and Kinross District Board of Lunacy—Smith's Visiting List for 1871—Food Journal, December—Monthly Microscopical Journal, December—Dr. Fleetwood Churchill on the Diseases of Children—Professor Tyndal's Essays on the Use and Limit of the Imagination in Science—Australian Medical Gazette, September—Indian Medical Gazette, November—W. Thomson, F.R.C.S. (Melbourne), On Phthisis and the Supposed Influence of Climate—Abstracts of English and Colonial Specifications relating to the Preservation of Food, etc., by William Henry Archer, Registrar-General of Victoria—Transactions of the Pathological Society of London, vol. xxi.—Journal of Cutaneous Medicine, vol. iv. No. 15—Der Scheintod Neugeborener, von Dr. B. S. Schultze—Dr. Gull's Harveian Oration, delivered at the Royal College of Physicians, June 24, 1870—Bumstead on Venereal Diseases—Dr. White's Introductory Lecture before the Medical and Dental Schools of Harvard University—Dr. Scoresby Jackson's Note-book of Materia Medica—Monthly Homœopathic Review, December—Phrenological Journal, July.

NEWSPAPERS RECEIVED—

Pharmaceutical Journal—Nature—Warwick Advertiser—Edinburgh Evening Courant—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

December 10. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

12. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

Medical Society of London, 8 p.m. Mr. W. F. Teevan, "Practical Remarks on Stone, with an Analysis of Twenty-four Cases." Previously to the paper, Mr. Spencer Watson will bring forward a Case of Ectropium treated by Plastic Operation.

13. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Ethnological Society, 8 p.m. Sir John Lubbock, Bart., M.P., "On Stone Implements from Africa." Mr. Edgar Layard, "On Stone Implements from the Cape of Good Hope." Mr. C. Spencer Bate, "Second Report on the Prehistoric Monuments of Dartmoor."

Royal Medical and Chirugical Society, 8½ p.m. Mr. W. Sedgwick, "On Temporary Glycosuria as a Sequel of Cholera."

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

Epidemiological Society, 8 p.m. Dr. Christie (of Zanzibar), "On Cholera in East Africa."

Hunterian Society. 7½ p.m.: Meeting of Council. 8 p.m.: Adjourned Discussion on Mr. Hovell's Paper on "Hysteria." Dr. Phillips, "Cases of Puerperal Convulsions, with Remarks on Treatment."

Society of Arts, 8 p.m. Meeting.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Harveian Society, 8 p.m. Mr. Fairlie Clarke, "On Surgical Dressings."

16. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 3, 1870.

BIRTHS.

Births of Boys, 1122; Girls, 1056; Total, 2178.
Average of 10 corresponding weeks, 1860-69, 1973·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	743	739	1482
Average of the ten years 1860-69	763·6	755·5	1519·1
Average corrected to increased population	...	...	1671
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	3	10	24	1	6	2	2	1	3
North ...	618210	11	3	31	4	4	3	6	4	1
Central ...	383321	3	1	11	1	2	2	4	1	...
East	571158	35	6	11	...	7	3	3	2	4
South	773175	8	13	53	5	6	2	6	7	4
Total	2803989	60	33	130	11	25	12	21	15	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·215 in.
Mean temperature	38·9°
Highest point of thermometer	46·9°
Lowest point of thermometer	29·5°
Mean dew-point temperature	35·2°
General direction of wind	Variable.
Whole amount of rain in the week	0·01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 3, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Dec. 3.	Deaths Registered during the week ending Dec. 3.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2178	1482	46·9	29·5	38·9	3·83	0·01	0·03
Portsmouth ...	122084	12·8	79	31	55·4	25·2	38·2	3·44	0·00	0·00
Norwich	81087	10·9	44	43	47·5	33·5	40·6	4·77	0·09	0·23
Bristol	171382	36·6	108	93	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	56	28	46·8	28·8	39·7	4·28	0·09	0·23
Birmingham ...	369604	47·2	245	128	47·2	30·8	39·9	4·39	0·05	0·13
Leicester	97427	30·4	71	66	47·5	31·0	39·5	4·17	0·05	0·13
Nottingham ...	88888	44·5	40	45	45·7	28·0	39·9	4·39	0·02	0·05
Liverpool	517567	101·3	408	410	46·0	34·0	40·0	4·44	0·04	0·10
Manchester ...	374993	83·3	288	156	...	...	...	...	...	...
Salford	121580	23·5	100	52	48·4	32·0	40·0	4·44	0·02	0·05
Bradford	143197	21·7	118	76	46·0	34·1	39·8	4·33	0·00	0·00
Leeds	259527	12·0	280	149	45·0	34·0	39·4	4·11	0·04	0·10
Sheffield	247378	10·8	193	118	45·5	33·1	39·4	4·11	0·14	0·35
Hull	130869	36·7	110	53	46·0	29·0	38·9	3·83	0·59	1·50
Sunderland ...	100979	30·5	62	39	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	122	48	46·0	32·0	38·3	3·50	0·00	0·00
Edinburgh	178970	40·4	118	99	41·7	31·0	37·2	2·89	0·10	0·25
Glasgow	468189	92·5	367	275	44·7	25·0	37·6	3·11	0·00	0·00
Dublin (City, etc.*)	321540	33·0	182	171	54·2	34·5	43·1	6·17	0·00	0·00
Total of 20 Towns in United Kingd'm	7216325	33·8	5169	3562	55·4	25·0	39·4	4·11	0·07	0·18
Paris—Week ending Dec. 3	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Nov. 26 ...	622087	167	...	297	...	...	48·7	9·25	...	...
Berlin—Week ending Dec. 1 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·215 in. The highest barometrical reading was 30·45 in. on Thursday, and the lowest was 29·84 in. at the beginning of the week.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE CONDITIONS OF DISEASE DEMANDING ABSTRACTION OF BLOOD.(a)

Gentlemen,—Medicine is never so satisfactory in matter of practice as when she combines theory with practice, and when, in respect to results, both are in accord. When theory explains what ought to follow upon certain methods of treatment, and when practice confirms the treatment as of sterling worth, the mind of the Practitioner is at peace. He knows in what he believes, and acts, whatever may be the exceptional result, with a consciousness that he is following a rule which, on the whole, is beneficent and trustworthy. Our forefathers in Physic were weaker than we are, because they had not our advantages in theoretical study. They observed the phenomena of disease as we observe, and recorded them so faithfully and with such true delineation of nature that they leave little for us to do in mere description, nothing that can excel their own. The remedies they employed they also described with infinite care, and the effects of the remedies, in so far as they were able to form a judgment, were written with the most simple honesty. But at these points they stopped: if they endeavoured to account for the cause of a disease or the action of a remedy, the *modus*, they fell into a train of reasoning tinctured by the philosophy of their time and inexplicable now. We, more fortunate, are improving in theory by the better light that flows in upon us from modern philosophy; and so we are able to advance, as they never were, towards knowing not only facts, but the why and the wherefore of facts,—a signal advance.

In the matter of bloodletting, our forefathers were great in facts, and I have tried, in a former essay, to accord to them some of the credit that is their due. By their facts, the majority of the Medical world, even one generation ago, firmly held. At length new theory, very imperfect of its kind, and assuming too much, threw doubts on some of the facts, and thus the practice of drawing blood fell into disrepute, its faults grossly exaggerated, its virtues ignored and forgotten.

We return, however, to the fathers once again. We are forced to acknowledge that, after all, they held in bloodletting a powerful means of cure; we are driven to accept that the remedy was based on correct observation; and we are driven, further, to the conviction that, by omitting to use this remedy, we moderns often let patients die who might live and be cured.

My lecture of to-day is offered as an attempt to treat with this conviction. Not one alone of Medical men, but many, have spoken to me upon it with compunction. We read, say they, what you and others have written on this remedy of abstraction of blood; we accept much you have said, but we cannot act as we would, even when we know a case must end fatally, because we have no clear rule for bleeding, nor connected theory on which to rest. You should define more clearly. Well, to-day it is my wish to define, not with dogma, but with reason—reason in which theory and practice go hand-in-hand harmoniously.

THEORY.

Let us endeavour, first, to learn the theory of the practice of taking blood. What physiological changes occur in the body when blood is being abstracted—in what way are these changes likely to influence function? And, that we may have no confusion of thought, let us, on the present occasion, treat only of abstraction of blood directly from a vein.

In tapping a vein, then, and allowing blood to flow from it, we should bear in mind that the venous channel we have opened is not simply a blood-course, but a reservoir of blood; a reservoir from which the right heart lifts up, at each stroke, a column, and pours the charge into the lungs. It makes some considerable difference from what part of the reservoir we take our blood; if we take it from the arm, we draw at first from that section of the reservoir from which the blood proceeds—the hand and arm—and we affect the other parts of the body little; if we take it from the jugular vein, we draw direct from the brain, and very quickly interfere with nervous function; if we take it from the foot, we affect more slowly than from the arm, and much more slowly than from the neck. These facts were well known to the ancients, who, accordingly as they wanted a quick, or moderate, or slow deliquium, bled from the neck, the arm, the foot.

After a time there occurs, under the abstraction, a central change of the circulation: the volume of blood pouring into the heart is diminished at the right side of the heart; thereupon the volume of blood passing over the pulmonary circuit is diminished, and the first symptoms are, unsteady breathing, attended usually with sense of oppression, and desire for air; the balance of the respiratory and circulating systems is disturbed, the pressure of blood in pulmonary circuit is reduced, and exhaustion would now soon follow, but for a new change that takes place: the venous reservoir begins to be fed more freely from its tributary sources. We find, if we tie the aorta of an animal just dead, so that no blood can make its way from the arteries into the veins, that, for an interval of three, four, and I once knew five, minutes, there is an influx of blood into the right heart under the mere motion of its auricle. The venous reservoir, bereft of its supply by the arteries, is filled for a time by tributary currents, by influx of water, by influx of chylous fluid, and by influx of returning blood from the great glandular organs, such as the liver and spleen. Thus the reservoir becomes filled up, not now with simple blood, but with blood containing specially an excess of water. Under these circumstances the blood from the vein becomes of darker colour than is natural, precisely as this bright arterial blood before me becomes dark when, as I now do, I infuse into it a little water. At this stage of the operation the blood shows, also, an increased tendency to undergo coagulation; precisely as this blood before me, in which the fibrine is held in solution by the addition of a salt, shows quick tendency to solidify when I simply infuse water into it. The reason of this is that the influx of water disturbs the balance, between the saline parts of the blood, fibrine, and water, which is necessary for maintaining fluidity. The blood receiving more water than the salts can remove in due quantity, the fibrine tends to pass into the solid form, to coagulate. Thus, sometimes there is a sudden coagulation of blood during this stage of blood-letting, in cases where the fibrine, already in trembling equilubrium, is ready, under very slight disturbance, to solidify. A stage a little further on, and the blood from the vein ceases to begin to flow, the heart becoming enfeebled, and fails to take up with sufficient force from the venous reservoir the fluid contained in it, and the blood itself loses in sustaining power. Then the evidences of syncope are manifested, lividity passes into pallor, the controlling nervous centres are paralysed, the volitional centres are paralysed, and there is deliquium. The deliquium does not, as a rule, pass into death, however, because the heart, though it contract feebly, continues in motion, and, if the loss of blood be stayed, soon recovers itself; indeed, if the bleeding be continued, the heart continues to contract after the respiration has ceased, and I have seen this day, in an animal that died from actual loss of blood, the heart rhythmically acting for ten minutes after death. We have here the same phenomenon as that which is observed after death by chloroform; and the cause of the phenomenon is that the heart first feeds itself with blood by the coronary vessels, so that it is the last organ of the body that is exhausted, and is consequently the last to die. But for this provision every case of syncope would be a case of death.

In this period of temporary suspension of the common phenomena of life, there is, as we know, complete collapse of voluntary power; there is also such perfect loss of sensibility that the late Dr. Wardlaw, before the days of anæsthesia, once bled a lady to insensibility, and while she was unconscious amputated her breast. But soon, should the loss of blood continue, and perhaps should it not continue, there is another symptom added—I mean irregular and severe convulsion. This convulsive action is a definite phenomenon, and it may be seen in the slaughter-house in every animal that is killed by simple loss of blood. It appears invariably at a given moment during loss of blood, it lasts a regular time, and it ends in complete cessation of muscular motion. When we analyse the phenomenon of the convulsion we find that it is simply due to loss of nervous control over the muscular system. The nervous system is dead, and is, as it were, broken off from the muscular system; but the muscles retain their power to act and persist in action, the flexors against the extensors, the extensors against the flexors, in uncurbed restraint, until both are reduced in power. Still, the muscles retain long what is called their irritability, and if supplied with saline solution, in current, remain active, under stimulation, for two and three hours after death,

(a) Delivered on Tuesday, November 1.

if their temperature be kept low. We have before us proof of this. Here is an animal that died two hours ago; from it every portion of blood that could be extracted was extracted. We insert now in the aorta an injecting-tube, and throw round the arterial vessels, into the muscles, a weak solution of common salt, and, under the stimulus of electricity, you see the muscles again so active that the limbs are moved freely. These muscles are not dead, and if we could re-connect them with their nervous centres, and restore the nervous power, we could call up a resemblance, at least, of actual life.

Baron Liebig, in a recent admirable lecture (translated by Dr. Paul, in the *Pharmaceutical Journal*), has called particular attention to this effect of a saline solution in restoring muscular irritability after death, and has adduced in illustration an experiment made on frogs, in which, for several hours after the natural circulation of blood has been cut off from the animal, the muscular motion has been sustained by the injection into the arteries of common salt and water. He has further adduced an observation, by Professor Agassiz, of a wounded shark that lived for a long time on the sea water which had found its way into the circulatory channels of the animal. But we have had better observations even than these in the practice of Medicine; for in cases of serous hæmorrhage, cholera, in the human subject, we have had instances abundant in which, after the apparent collapse of death, after cessation of motion, sensation, and other signs of life, the introduction of saline solution by the veins has restored animation. In like manner, in collapse from direct loss of blood, the same restoration of motion has followed transfusion. Again, in some experiments of my own on the bodies of warm-blooded animals that had lain dead in the air at a temperature below freezing-point, it was found that so long as three hours after death active muscular motion could be excited by simply injecting water, without salt of any kind, at a temperature of 115° Fahr.; while in a turtle that had been killed by decapitation in the usual way, I once found the muscles of the head, that had been kept at 32° Fahr., contracting vigorously, under mere mechanical stimulus, eighteen hours after they had been separated from the rest of the body.

The evidence, then, is conclusive that, after loss of blood to and beyond the stage of convulsion, the muscles retain their power to contract; they retain it much longer, I may say, under this condition than when they are left full of blood, and they begin to react so soon as they are recharged, even after prolonged absence of blood. The heart, also, with the other muscles, retains its power, and, as it is most readily resupplied with blood, it continues to act during deliquium, and maintains the life. In the days when to bleed from a vein was a practice followed by every busy Practitioner every day, syncope from bleeding was an event of the most common kind; but death from the syncope thus induced was almost unknown.

There has been some difference of opinion respecting the temperature of the body during loss of blood. From the observations I have made in the cases of animals bled to death in the *abattoir*, I was led to infer that through the whole process of abstraction of blood there was lowering of temperature. But this view has been opposed, and it has been affirmed that there is sometimes an increase of temperature during loss of blood. I have on this point some notes recently made by my friend Dr. Day, of Stafford, who has observed the effect of abstraction of blood in a calf that was bled, as is the custom in some parts of England, on two days previous to slaughter of the animal. In this instance, the temperature in the rectum remained on both occasions unaffected, but in the mouth it underwent decided reduction. Dr. Day has also taken observations in two cases of accidental hæmorrhage in the human subject, in one case of post-partum hæmorrhage in the human subject, and in one case of excessive internal hæmorrhage occurring during typhoid fever, also in the human subject. In the cases of accidental hæmorrhage, the temperature in the axilla and the mouth was reduced 1½°; in both these instances there was recovery. In the cases of post-partum and of internal hæmorrhage, there was decline of temperature to nearly 2° up to the moment of death (both being fatal cases); but in both, at the moment of death, there was a suddenly-developed increase of temperature. This fact of post-mortem rise in temperature, on the cessation of the movements of the heart and of the muscles of respiration, has been observed after death by cholera and other suddenly exhaustive diseases, and has been before us in a previous lecture. Its occurrence in cases of hæmorrhage may have led to the difference of opinion that has been expressed respecting the effect of hæmorrhage by other observers. I do not, however, think the fact in any practical way influences the question we have now in hand; and from the evidence we have before us we are, I infer, bound to accept, until other and very decided proof has been given to the contrary, that during loss of blood the temperature of the body is reduced.

We may sum up the physiological effects of abstraction of blood under a few heads. There is, *firstly*, modification of the balance of the circulating and respirating systems; *secondly*, influx of fluids into the venous reservoir from the tributary supplies; *thirdly*, hydration of the colloid fibrine, and dilution of the saline parts of the blood, leading to tendency to separation of fibrine; *fourthly*, syncope; *fifthly*, convulsion of the muscles from removal of nervous control, with retention of the muscular irritability; and, *sixthly*, decline of animal temperature. From these facts we may turn to the application of bloodletting in cases of disease, and may ask, and try to answer the question, What are the conditions of disease demanding the abstraction of blood?

THE PRACTICE.

In considering the practice, the first thought is that those effects of bloodletting, which might be expected to be useful, are such as may be called mechanical effects: in plain, whenever the venous reservoir is under distension, so that due motion of blood and of function of part depending on motion of blood for function is disturbed, abstraction of blood is the most direct remedy. We will consider these cases.

Cases of Lightning-stroke.

The experience of many observers on the efficacy of venesection in cases of lightning stroke is entirely in support of the value of this remedial measure. In my lectures on lightning-stroke, I have recorded a case in which a man who had been rendered insensible by lightning was bled in the freest manner, the consciousness returning during the bleeding, and the recovery being secured. The older men in Physic, who always opened a vein in such cases, were apparently clear as to the importance and success of the practice; and within the last year I have made some experiences which in the most singular manner confirm this practice. From an observation made by Benjamin Franklin—that the most humane and rapid mode of slaughtering animals for food would be by a powerful electrical discharge—I was led to try if this really were a practical suggestion. I therefore had sheep taken to the Polytechnic Institution, and had them killed by a discharge from the great battery there. I found that full-grown sheep could be fatally and instantaneously struck down by the discharge from a surface of a Leyden battery of ninety-six feet. But here came the curious fact: when animals struck in this manner were laid on the bench after the shock, apparently dead, and actually dead if let alone, they would show the most convincing evidence of recovery if they were instantly bled freely from the neck. After the blood had flowed for a little time, the animals began again to breathe; they struggled as they do when they have not been struck, and they became so distinctly conscious that I had to give up the notion of recommending any change in the present mode of slaughter. In another case, where a smaller animal was struck down and rendered apparently lifeless, the opening of the external jugular vein was followed by a gush of blood, by immediate return of the respiration, and rapid recovery.

The *rationale* of the treatment in these cases is most simple. The effect of the lightning, or of the electrical discharge, is to create expansion of the contents of the venous reservoir; there is liberation of gases from the blood; distension of veins in all parts; pressure on the brain in the closed cavity of the skull, and insensibility as the result of the pressure; distension of the right side of the heart, so that the muscular structure is paralysed; and temporary cessation of all motion and function. The opening of a vein at once relieves all this embarrassment; the heart is set at liberty to recommence its contractions; the nervous centres governing the process of respiration are relieved; and, if the derangement of the animal mechanism does not extend to actual disorganisation of blood, or to severe rupture of organic structure, when no remedy would avail, the natural functions are restored, and life is saved.

I take it, then, that in cases of insensibility from lightning shock, or electrical shock, the abstraction of blood by venesection is demanded.

Sun-stroke.

In sun-stroke the conditions of disease are closely analogous, if not identical, with those induced by lightning. One of my earliest experiences—an experience that has made me hold to the thoughtful practice of bloodletting—had reference to this disorder and its treatment. A man was carried from the harvest-field to the residence of a Surgeon, a relative of mine, insen-

sible from sun-stroke. The patient was carried in like a dead man—unconscious, powerless. He was livid, but breathing at intervals, and there was still some audible motion of the heart. The Surgeon, one of the school of Clive and Astley Cooper, and one who had no doubt as to what was the right thing to do, acted promptly. "He will recover if we can only get blood," was the remark to me; so the man was held up by his mates in a garden chair, a fillet was put round each arm, and a vein was opened beneath each fillet. At first the flow of blood was slow, though the veins everywhere were distended to the utmost, then the stream became more determinate, and at last copious, and the result was that in five minutes the man was breathing freely, was becoming conscious, was recovering. He was simply cured straightway, was able to assist himself to walk away, and without any other touch of Medical treatment, was restored to full health in a few days.

I urge, then, that in cases of severe sun-stroke, when the venous reservoir is under extreme distension, when the large tense veins offer themselves, I had almost said, to the operator, there is a condition of disease demanding abstraction of blood. In America this fact seems now to be recognised, and the practice of bleeding founded upon it, in so far as it has been carried out, has been most successful. In England, at this time, the practice is lost, and case upon case, during the heat of summer, is registered in the returns of mortality as death by sun-stroke, in which virtually nothing has been done at all to promote recovery—nothing, I mean, that is likely to be successful. Mustard, perchance, is applied to the limbs, cold to the head, a blister to the nape of the neck; a purgative, if the patient can be made to swallow it, is put into the stomach, or an injection is administered by the rectum. Of what avail these slow, these almost meaningless measures? By the side of the grand old remedy they are trifles, having neither theory nor practice to sustain them.

Cases of Mechanical Shock.

The teachings of the writers of twenty-five years ago, when the reaction against bloodletting set in, told greatly and effectively against the abstraction of blood after mechanical shock. It was teaching diametrically opposed to the learning and observations of centuries, but it had its way, and it has been generally adopted. It is, perhaps, not altogether bad teaching, but it is certainly too sweeping. Mechanical concussion differs from lightning-stroke and from sun-stroke in that it does not increase the tension of the venous blood. It paralyses the muscular system through the nervous system, and it is probable that after such paralysis it were best to endeavour to restore by the application of warmth and the administration of a stimulant, rather than by abstraction of blood. I would not, therefore, put forward bloodletting in such instances, although, at the same time, I cannot conceal the suspicion that, in some cases, the old men were right in trying to draw blood. It is certain enough, from the history of Surgery, that the fathers of our art, coming to persons who had been apparently so stunned as to be, to common observation, dead, were successful in restoring motion of blood through the vessels of the body by drawing a current of blood from an open vein. I do not press the point, however, because we have in these days no evidence to guide us, except the *litera scripta* of the past. But there is a condition of reaction after recovery from the paralysis of shock which may call urgently for abstraction of blood. In the condition of which I speak, the heart, recovering first from the general shock, pours into the feebly-resisting capillary vessels a full volume of blood, leading to what is called congestion of vascular organs, and to secondary mischiefs resulting from congestion. In these circumstances the pulse becomes resistant, the veins full, the breathing laboured, the body hot; while the unconsciousness from the paralysis passes into unconsciousness from coma. Twice, in cases such as I describe, I have seen the abstraction of blood from a vein, until the tension of the vessels was relieved, lead to the most perfect of results; and both theory and practice bring me to the conclusion that this condition is one demanding abstraction.

This same rule would apply to cases of shock following some large Surgical operations, and this view is confirmed by Mr. Spencer Wells, who, after the great operation of ovariotomy, has several times taken blood to meet particular and serious symptoms. I asked Mr. Wells to be good enough to give me a brief note on the general results of taking blood in his cases, and thus he writes:—

"As to bleeding after ovariotomy, my conclusions are that it is most useful when there is *mechanical* cause for suffering, as congested lungs and oppressed heart, or sudden loss of balance between heart and blood, owing to removal of a large tumour which contained large vessels and received a free supply of blood. But when we have true Surgical fever to deal with, which I suppose is either septicæmia or pyæmia, or one of the two opposed conditions of excess or deficiency of fibrine—and I think we are making out the different forms of fever with which these different blood changes are associated—then I have always found bleeding do more harm than good; more than once it has seemed to me to be certainly the direct cause of rapid sinking."

I shall deal with the last point, noticed by Mr. Wells, further on.

Cases of Reaction from Exposure to Cold.

In cases where the body has been exposed to what may be correctly called the shock of extreme cold, we have, during reaction, a series of symptoms similar to those which follow the reaction after shock from a blow or concussion. We have the same hard pulse, tense vein, congestion. When these cases end rapidly, we usually return them as cases of acute congestion of the lungs. Well, in truth, they are attended, not with congestion of the lungs alone, but of all the vascular organs; and when they do not terminate at once in death, but run what is called their natural course, they pass into conditions of disease —"inflammation"—of some particular organ: lung, kidney, liver, spleen. The ancients were accustomed to bleed in all stages of this condition—in which practice they were, I think, wrong. But there is one stage in which, when they bled, they were essentially right—I mean the stage of acute reaction, before there is any organic change of structure from congestion and from effusion through the distended vessels. To draw blood freely in this stage is simply to cure off-hand. I was taught this lesson of treatment from the experience of a very excellent Practitioner, twenty-five years ago. I have always followed it, when permission was allowed me; I have never seen a bad result from it; I have cured at once by it; and I have seen the worst results from the omission of the practice. It is pitiable to hear, as is constantly heard, of young, strong, active people, who, by accident or Surgical operation, might lose blood without any expectation of danger, to hear of such being allowed to die from acute congestion because it is not now the fashion to take the blood (which they might lose by operation or accident without anxiety) for the direct purpose of saving their lives. These are cases, unhesitatingly, in which the conditions of disease demand the abstraction of blood.

Cases of Cardiac Congestion.

There is a class of case in which the right side of the heart is dilated and enfeebled, and in which, under some special circumstance, as exposure to cold, excess of food or drink, barometrical change, there is sudden embarrassment of the circulation, oppression of breathing, tenseness of veins, and threatened death. In these cases the veins themselves stand out so fully that you could draw a fair amount of blood without the fillet, if that were desirable; the body is dusky, the eyes injected, the mind restless, the passive oppression intolerable. It happens often in these cases that the patients are advanced in life, or, at all events, are past the meridian, and on this ground a special objection is taken towards "reducing" them by abstraction of a few ounces of blood; so they are treated with stimulants, with sedatives, with chloric ether, with a blister, and in time they may get relief. They get relief by this process—that, out of the obstructed venous reservoir, a certain quantity of fluid passes into the cellular tissue of different organs by exudation, and a certain amount of further organic disease is thus committed. In these cases it is my practice, whenever I can get the permission, at once to relieve the tension of the venous reservoir by the abstraction of a few ounces of blood from a vein. The effects have to be seen to be fully accredited. There is no exhaustion from this process, but a sense of relief from overwhelming oppression; the heart ceases to struggle against the load it could not before lift up; the dusky colour of the body clears away; and the symptoms altogether are relieved, we may say practically, at no more actual cost than would follow if the venous reservoir were allowed to empty itself by passive transudation of serum, and with no secondary train of evils derived from exuded fluid in vital organs. I knew a lady who was bled under the condition I have named after her 80th year, and who was always relieved by the process immediately. I classify passive cardiac congestion from enfeebled right heart as a condition of disease demanding abstraction of blood.

Abstraction of Blood in Cases of Apoplectic Coma.

Our predecessors were led in all cases of apoplexy to abstract blood. They made on this point a hard-and-fast rule, and the people had such confidence in the rule that they insisted on having it carried out. A hundred years ago a Surgeon or Physician who refused to bleed in apoplexy would have lost

caste on all sides, and would probably have been considered guilty of malpraxis. Admitting that our predecessors committed some errors by this hard-and-fast line of practice, they were less guilty of error, I imagine, than we are in this day; for whereas they treated apoplexy and often cured it, we, as a rule, do not in reality treat it at all, but let it take its own course, resorting to a sinapism, a dose of croton oil, or an injection, for the sake of doing something in the right direction, but leaving the case to that most perverse of curers, *Nature*, which, in nine apoplexies out of ten, means that we leave the patient to die.

But suppose there be sudden coma, with or without convulsion, from sudden pressure on the brain, what are the means by which we can hope to relieve? If the pressure be due to exuded serous fluid in the closed cavity of the skull, our object should be to get that fluid back again into the general circulation. If the pressure be due to paralysis of vessels of the brain or to obstruction to the return of blood from the brain, our object should be to reduce the pressure, and to limit the volume of blood. If the pressure be even from actual effusion of blood, our object should be to expedite the formation of clot, the separation of serum from the clot, and the absorption of the separated serum. Does anyone think sinapisms, croton oil, or injections into the rectum are reasonable measures for these important purposes; or does anyone see anything very promising in nature of a corrective kind? Under mere nature, in such cases, as far as I know, the unconsciousness remains, the body becomes very hot, the action of the heart increases in force, the skin and the mucous surfaces exude copiously, the bronchial tubes become loaded with water, the respiration gets impeded from the accumulation of fluid, the body sinks in temperature, with recurring convulsions; and death, in continued unconsciousness of the patient, closes the chapter. Turn round to bloodletting now as the remedy, and see what it offers. Say we do not always cure by it: Well! is it not better to cure sometimes than never to cure? And what, I repeat, does bleeding offer in apoplexy? It reduces the force of the heart; it reduces the volume of blood; it leads to absorption of serous fluid, if serum be exuded; and it leads to the formation of clot, if blood be exuded. Why, so rational, so purely scientific is the process, that if it had never been discovered, and some one had now discovered it, he—the discoverer—would have been looked on as one of the greatest men of this age of Physic!

Turn from theory to fact—and the fact I will give is but one of many in illustration of the harmony that prevails between theory and practice in this matter of bloodletting. Mr. Roberts, of St. John's-wood, called me recently to see a gentleman who was suffering from apoplectic coma with repeated attacks of convulsions. The patient's breathing was stertorous; his mind unconscious; his volition gone; his body, which had been raised in temperature above the natural standard, cooling; his bronchial tubes and trachea loaded with fluid; his eyes fixed, and his pupils contracted. It was clear that the man must die in the course of a few minutes; but we got permission to draw blood *pleno rivo*, and when about twenty ounces had been drawn, the blood (previously very dark) became brighter in colour, the convulsion ceased, and the patient, showing a conscious act for the first time for some hours, coughed up and spat out freely the accumulated fluid in his bronchial tubes. When twenty-four ounces of blood had flowed, the pulse had lost its hardness, the veins their tenseness, the pupil its fixed contraction. We stayed there the bleeding. The next morning I saw that patient move from one bed to another, and take part in changing his own dress; and in a few days I heard of him as about in the air, comparatively well.

These are the cases on which our predecessors based their treatment of bloodletting. In our day the case is a wonder; in their day it would have passed as a matter of course. In some cases a difficulty arises from the occurrence of convulsion in comatose states; and in purperal convulsions, with coma, the difficulty, I know, as to bloodletting is considerable: for, because the extreme abstraction of blood leads to convulsion, therefore it may be considered unsafe, when there is convulsion present, to take blood. It should be remembered, however, that convulsive action may be induced by pressure upon the nervous centres as certainly as by exhausting those centres of blood; and when in any case there is convulsion with no symptom of exhaustion, but with symptoms of tension, then the convulsion is due to pressure, and abstraction of blood is the remedy. The affirmative points of practice, in the cases of coma with convulsion which call for bloodletting are—(*a*) Sustained temperature, or excess of temperature, of the body; (*b*) tense veins; (*c*) hard pulse; (*d*) contracted pupil; (*b*) (*e*) free exudation of fluid, without coldness, on the skin and mucous surfaces.

In cases of apoplectic coma with the symptoms I have here noted, the conditions of disease demand the abstraction of blood. They demand it, as it seems to me, so urgently that the patient who is allowed to die without having had given to him the chance of recovery offered by venesection, has been neglected, permitted to succumb by nature, and denied the best of the resources of Medical art.

There are, lastly, cases in which coma and convulsion follow on disease of the kidney—cases, so-called, of uræmic coma—in which the abstraction of blood is of the most marked benefit. I have treated of these cases in a special essay in the *Asclepiad*, and have no need to repeat the arguments and facts there detailed. I add, therefore, simply, that some years of experience and experiment since the essay named was written have but more fully confirmed me in considering uræmic coma a condition of disease demanding extraction of blood.

CONCLUSION.

I have notes before me treating of other conditions of disease, in which the abstraction might be fairly considered. There are, I believe, cases of hæmorrhage, out of mechanical control, in which rapid abstraction of blood by a vein to syncope would be reasonable and successful practice. Mr. Hunt has referred me to a case of eczema in which bleeding rendered quick and effectual service, and I have a fact or two on the good effect of abstraction of blood in the congestive delirium of typhus; but I leave all these subjects as *sub judice*.

I have also some notes relative to cases in which the abstraction of blood, as practised by our predecessors, was *bad* practice; but this topic is too wide to be entered upon here, except in one particular, which I dare not leave unnoticed. Both theory and practice show that in confirmed inflammatory conditions, where, upon congestion, structural change of some important organ has supervened, where the temperature is persistently high, the skin dry, the tongue furred, there is danger in bleeding. I pointed this danger out long ago, and it lies in this — that, during the true inflammatory fever, there is always tendency to deposition of fibrine in the venous side of the circulatory system, and this tendency is increased by the abstraction of blood. Mr. Wells' experience, expressed above, entirely confirms the view thus stated.

And now my present task is over. I have endeavoured to avoid doubtful questions, in order to fix attention on what may be said affirmatively and firmly in favour of one of the oldest and grandest of remedies. My object has been to bring that remedy out again to the full light of day, to place it on a scientific basis, to reclaim it, to reform it, and to beg your support in the effort.

Greenock Medical Society.—The following gentlemen have been elected office-bearers for 1871:—*President:* Dr. James Wallace. *Vice-President:* Dr. W. J. Marshall. *Secretary:* Dr. E. T. Dowie. *Treasurer:* Dr. W. A. Wilson. *Librarian:* Dr. John MacDougall.

Dr. Czerny, assistant to Prof. Billroth, went to Mannheim soon after the battle of Weissenburg. He found a great excess of Doctors of all kinds seeking employment; some with the best intentions, and others mere Hospital loafers. Some were unsuited for the duties they undertook, and for others who were suited to them it was impossible to provide the posts they sought, so that there may be hundreds of Medical volunteers wandering about a battle-field without specific employment. He suggests that all volunteer Medical aid and agencies, willing to assist the totally insufficient military provision in war-time, should be centralised under an independent Medical command, which should have the power of directing—under agreement with the military command—assistance immediately where it is required. We should not then witness the wounded lying four days on the battle-field unattended to, as they were after the battles of Metz. Then there would no longer be seen from 400 to 500 wounded persons transported by rail without any Surgeon accompanying them. It is true there is a Doctor at every station, whose duty is to dress the wounded; but what can he do in the half-hour the train stops at the station? It is also true that the very badly wounded have been accompanied by all the necessary Medical *personnel*. He points out how efficiently the Americans in their war treated the patients during their transport.

(b) Dr. Day, of Stafford, has noticed with much precision the contracted condition of the pupil as an indication for bloodletting in the class of cases I have named.

ORIGINAL COMMUNICATIONS.

ENEURESIS, AND ITS TREATMENT BY A NEW REMEDY.

By JOHN BARCLAY, M.D.,
Late Assistant-Professor of Materia Medica and Medical Jurisprudence in the University of Aberdeen.

This complaint, called also hyperuresis and incontinence of urine, is a most distressing one, and I suppose that every Medical man will agree with me when I say that there are few diseases the treatment of which gives him greater annoyance, is more unsatisfactory in its results, and, consequently, brings him less credit. Incontinence of urine is most frequently observed in childhood, but it may occur at any period of life, from infancy up to manhood. When the disease exists in adults, however, we have nsually some mechanical cause in operation, while in earlier years, for the most part, no cause whatever can be ascertained. Both sexes are liable to this affection, but probably it is rather more common in males. In girls it is noticed to be more difficult of cure than in boys.

A great variety of causes have been set down as productive of incontinence, such as general cachexia, scrofula, dyspepsia, hysteria, spinal disease, ascarides, piles, prolapsus ani, a too long prepuce, contracted bladder, hyper-acidity of the urine, hyper-alkalinity of this secretion, want of proper management, bad habit, too free use of fluids consumed during the day, too free use of alcoholic drinks; in some lying on the back while asleep, and so on. Bierbaum says the children of gouty parents are very liable to eneuresis, but I cannot say that in any of my cases gouty symptoms were observed, either in themselves or their parents. I think I have seen it most frequently in those of a scrofulous constitution. It appears to be hereditary. This I noticed in one of the cases detailed below—No. 5—for the mother of the girl had suffered for very many years from the complaint. It has been frequently observed, too, in several members of the same family. On two occasions have I seen this, two children in each of two families being so affected. In the great majority of cases, as I have said, no cause whatever can be detected. In three children I have seen the incontinence co-exist with impetigo of the head and face; and it was while treating the impetigo in one of those cases by syrup of the iodide of iron, and in ignorance of the existence of the other disease, that I was made aware, by the mother of my patient, of the good effects of the remedy on the eneuresis.

As to the frequency of the attacks, sometimes they occur at night only, and in one night once, twice, or even oftener; sometimes during both day and night, and I have several times seen a poor little patient so bad as to be perfectly unable to keep his clothes dry even for an hour during the day, and the same as regarded his bed during the night. Of course there are milder cases. But those which are incontinent both night and day are always the most difficult of cure. Even the worst cases, however, after all sorts of remedies have been tried in vain, will sometimes effect a spontaneous cure at puberty.

As regards the treatment, there is even more variety here than in the causes, and this is sure evidence that most of the remedies and plans of treatment proposed have given small satisfaction. These may be described under four heads—the "constitutional" remedies, or those calculated to operate on the disease through the system, by correcting some ascertained fault therein; the "moral" treatment; the different "mechanical" means which have been at various times brought forward; and the very numerous class of "specifics."

The "constitutional" embrace means taken to correct over-acidity or over-alkalinity of the urine, if either of these states exist; attention to the diet and regimen, more especially to the regulation of the quantity of drink taken at any particular time of the day or evening; tonics of various kinds, as tincture of iron, strychnine, and cod-liver oil; anti-gouty remedies, if an evidence of this disease is observed; the removal of ascarides from the rectum; cold sponging to the back and loins, and hot baths at bed-time.

The "moral" treatment includes attempts to correct bad habits, by insisting on the patient emptying his bladder thoroughly before going to bed, rising two or three times during the night, and observing regular times of micturition during the day. And then we have, by some injudicious people, a plan recommended, which may be classed either under the "moral" or "mechanical" head—the plan of castigation. This is a method of treatment only to be mentioned to be condemned.

The "mechanical" means proposed comprehend Sir Dominic Corrigan's plug of collodion, which he recommends to be applied to the orifice of the prepuce, thereby preventing the egress of the urine until the plug is removed, and which, he says, is usually sufficient in about a fortnight to effect a cure. Next, we have Pluvicz's compressing pads; Trousseau's urethral truss applied to the perineum; the application of an elastic band round the penis; the tying a reel on the back so as to compel the patient to lie on either side; circumcision where the prepuce is too long; the mechanical dilatation proposed and practised by Dr. Braxton Hicks, by the injection of warm water into the bladder, when the viscus is contracted; and the practice recommended by some one of passing a small silver catheter every evening.

The "specific" remedies in which most confidence is placed are—belladonna and its active principle atropia; bromide of potassium, alone and with syrup of poppies; cantharides; benzoic acid, where the urine is high-coloured and of strong odour; zinc; camphor, and secale cornutum. Besides these, we have a host of others, as—Inpulin; large doses of nitrate of potass; the inunction of morphia and veratria ointment into the perineum; the application of astringents, such as rhatany, tannin, and iron, to the sphincter vesicæ, recommended by Oppolzer; drop doses of tincture of iodine every two hours, lately recommeded by Dr. Schmidt, which it seems did good as long as the medicine was continued, but which, when omitted, left no permanent benefit; blisters to the sacrum; nitrate of silver to the prostatic urethra, and the same substance to the urethral orifice. I have tried several of the above remedies, and, before I stumbled upon the syrup of the iodide of iron, found atropia or belladonna by far the most certain and trustworthy. Tincture of iron is much employed, but after frequent and persevering trials with it, I have been always disappointed. During the past two years and a half, twenty cases of incontinence of urine have been treated by me; the medicine invariably prescribed has been syrup of the iodide of iron alone, and so far as I know there has been no failure. I have notes of all the cases, but only eleven in a completed state, since the other nine, who came from a distance, did not return to say what was the result. The probability is that they were cured, otherwise they would not have been got rid of so easily. Uncured cases are those that return upon our hands. At all events, the eleven who did report themselves, or who were continually under observation, were all cured, the improvement in several of the cases following so closely on the administration of the remedy as to leave no doubt but that the good effect was due to the syrup. I may mention that Dr. Manson, of Banff, and Dr. Smith, of Kinnairdy, have both found the medicine equally satisfactory. Dr. Smith says that he tried it only a fortnight ago, in a boy who for a long time had been a sad martyr to both diurnal and nocturnal incontinence, and who had resisted all other remedies, but upon giving him the iodide, in two or three days he was all but well.

I now give shortly the eleven cases of which I have completed notes, and the first of these is that which suggested to me the remedy.

Case 1.—April 13, 1868.—Helen W., aged 14 years, has impetigo of the head and face; ordered half-drachm doses of syrup of the iodide of iron three times a day, and some diluted citrine ointment as a local application. April 30.—Reported cured. From this time down to June 12 she got no medicine, when the girl herself came to me, telling me she had nocturnal incontinence. In the hurry of the moment, and without asking any questions or her volunteering any statement about the duration of the complaint, I ordered tincture of iron. She continued to take this till October 9 without any benefit, when I ordered tincture of belladonna. She returned on December 2, saying this, too, had done her no good. Her mother, who accompanied her, now told me that during the time the girl took the medicine for the eruption on the head and face, and for about a month after, she had no incontinence, and that the complaint, which had existed from childhood, had defied every means tried to cure it up to that time. It had, however, returned, and she wished to get the same medicine. I ordered it as before, and on December 23 she returned to say she had wetted the bed only four times since she got the medicine. I repeated it. On February 6 she reported that she had only had incontinence twice since last date, and none at all for the last twenty days. April 1.—Has not wetted the bed since last date, and only twice since December 23. I have often seen this girl since, and she has had no return up to the date of my writing.

Case 2.—December 5, 1868.—James S., aged 10 years, a poor scrofulous-looking creature, with cough and purulent sputa,

and other phthisical signs and symptoms, no appetite; ordered iodine externally, and syrup of the iodide of iron in twenty-five-minim doses after meals (I heard nothing at this time of the incontinence). December 22.—Decidedly improved; cough better, and he eats better. I was told to-day that he had laboured under incontinence of urine at night for some eight years, without even passing a night, but that since he had got the mixture he had only wetted the bed three times. To increase the syrup to half-drachm doses, and to take cod-liver oil. This boy was in a few days more cured of the incontinence, but in April, 1869, he died of phthisis.

Case 3.—December 23, 1868.—John M., aged 6, has had enuresis for eighteen months, and rarely has passed a night during that time without wetting the bed. Has impetigo of the head and face. Ordered the syrup in fifteen-minim doses. June 4, 1869.—Considerably improved; has wetted the bed only twice since he began the mixture. To increase the dose to twenty minims. February 10.—He is now said to have gone on improving for a week or two, but at the end of that time, and even while taking the medicine, he began to grow as bad as ever. To omit the medicine. February 20.—Immediately on discontinuing the mixture he was no more troubled by the incontinence. May, 1870.—Continues cured.

Case 4.—February 6, 1869.—Wm. L., aged 4, has for two years laboured under incontinence, once every night. He is a puny, delicate creature. Ordered the syrup in fifteen-minim doses. March 4.—Improved immediately on taking the medicine. March 21.—Cured. Remained so months after.

Case 5.—October 10, 1868.—Maggie McD., aged 10 years, has had incontinence from infancy. For many years, in spite of various medicines internally, and frequent and severe applications of the rod externally, she has wetted the bed three or four times every night, and during the day she has had to pass water nine or ten times. She never benefited in the least from any medicine, and belladonna was one of those perseveringly tried. Ordered the syrup in half-drachm doses three times a day. She gradually improved under this mixture, which she continued to take up to May 1, 1869, when she was reported to make water only once during the night, and this not in bed, and only twice or thrice during the day. The cure was steady and gradual. March, 1870.—Remains quite well.

Case 6.—October 21, 1869.—B. C., aged 7, has had incontinence of the nocturnal variety for two or three years, but wets the bed sometimes only every other night—often, however, many nights in succession. Ordered fifteen-minim doses of syrup of the iodide of iron before meals. December 10.—Cured. Did not wet the bed over twice after he got the medicine.

Case 7.—January 10, 1870.—John A., aged 16, has had nocturnal incontinence from infancy; makes water in bed every night three or four times, but occasionally passes a night without doing so. He passes water almost every hour, also, during the day. He is in consequence debarred from farm service; "no one," he says, "will give him a bed; he can only get straw to lie upon." Ordered syrup in half-drachm doses before meals. Jan. 18.—Decided improvement, both as regards day and night. Repeat the mixture. Jan. 31.—Improved. Last night did not wet the bed, nor on the night before the one preceding that. He can now keep his water during the day for more than two hours. Repeat the mixture. Feb. 28.—Cured; has had no return of the complaint since he finished the last mixture.

Case 8.—January 19, 1870.—George A. (brother of Case 7), age 12, has had nocturnal incontinence ever since he knew. Makes his water in bed every night. Ordered twenty minims of syrup three times a day. March 7.—Decidedly relieved. Does not now pass water in bed oftener than twice a week. Repeat the medicine. March 22.—Has not passed water in bed since last report. June, 1870.—Cured.

Case 9.—March 20, 1870.—Jeannie L., aged 10, has had nocturnal incontinence all her life; she never misses a night without wetting the bed, and makes water too often during the day. Ordered twenty-minim doses of the syrup of the iodide of iron three times a day. May 13.—Much improved, both as regards day and night. Her mother has great difficulty in getting her to take the medicine. October, 1870.—This girl gradually got better, and remains well.

Case 10.—March 24, 1870.—John C., aged 9, was always a delicate boy, has had incontinence of urine at night for about two months. Ordered the syrup in twenty-minim doses three times a day. May 21.—This boy was quite well before he finished a two ounce phial of the medicine, and remains well.

Case 11.—February 26, 1870.—Ann R., aged 8, has been all her life troubled with nocturnal incontinence. She never missed a night without wetting the bed, and sometimes did so twice in one night. Ordered syrup, in fifteen-minim doses, three times a day. March 6.—Not much better—indeed, hardly any; but she did not get the medicine regularly, being at school nearly all day. Repeat, and give in half-drachm doses regularly. March 16.—Much improved; has wetted the bed only twice during the last eight days. April 14.—Wets the bed only once every ten or twelve nights. August 20.—Has been cured for the past three months.

These cases speak for themselves. It is to be observed about Case 1 that even belladonna produced as little good effect as all the other medicines which were tried. Here, as in Case 3, there was impetigo co-existent with the enuresis. By the syrup of the iodide she was perfectly and permanently cured in about two months, dating from the time when she was put fairly under the syrup. Case 2 seems to have been pretty rapidly cured of the incontinence, even though the boy's general health became worse and worse. Case 3 is a curious one, and would do very good service to the homœopaths in support of their "*similia*" theory. When this boy was put on the syrup, he soon began to improve, and went on improving for several weeks; but at the end of that time matters assumed another aspect, for he began to retrograde, and soon became as bad as ever. In the face of this, I told his parents to discontinue the medicine for a little, so that I might take the case into consideration with reference to the exhibition of some other medicine. I resolved to give the boy belladonna, but, when I called to prescribe it, was told that, whenever he ceased to take the syrup, he was at once relieved. Unless in this case, I never knew or heard of the medicine producing incontinence. Case 5 was one of the worst cases I have seen. The girl's mother was for many years afflicted severely in the same way, but became cured spontaneously. Seven months were required for her daughter's cure. Case 6 was not a bad one, but the boy's cure was almost immediate. Case 7 was a very bad one, and some six weeks were required for the recovery. Case 8, brother of the last, was not quite so bad, but more difficult of cure. The remaining three present nothing of importance. The number altogether is not great, but these are all the patients so affected that I know of in our district, and I think the result of the treatment speaks for itself. A more extended use of the remedy will of course decide as to its value, but the success that has followed its employment in my hands warrants me in calling the attention of others to its efficacy. As to the *rationale* of its action, that is a matter difficult to determine; it may either act constitutionally as a general tonic, but it would almost seem as if the drug had some specific influence upon the sphincter of the bladder.

[Since writing the above, I notice in the *Lancet* for November 19 an account of two cases of incontinence treated by Dr. Thomson, of Peterborough, with chloral hydrate, and with good results. I can easily imagine that that substance would do well in the complaint, and will try it, first opportunity. I may also add that when called upon a day or two ago to prescribe for a case of impetigo in a child of 6 years, and on asking if during the attack she had suffered from incontinence, her mother replied that the child had for about a week passed her water in bed every night, a thing she had never done before, but that, when the pimples began to "settle down," the incontinence disappeared. The child got no medicine.]

Banff.

COLD WATER—HOLY WELLS—HYDROPATHY.

By JOHN MACPHERSON, M.D.

The number of springs of pure cold water believed to be endowed with healing virtues is almost infinite. Faith in them has diminished. But you have only to inquire for them, and they are still to be found in every corner of Europe. They are often connected with some church or chapel, and most of them are believed to owe a portion at least of their virtues to the saint to whom they have been dedicated.

Having visited formerly a good many holy wells in Ireland, I resolved this year to look at some in England and Wales. In many parts of England, the practice of decking the wells of a parish is still retained, and it appears to be a pretty enough ceremony. In some cases it is managed by the clergy, when the ceremony assumes a religious aspect, those who take a share in it seldom being aware that it is merely a Christian modification of the ancient worship of the powers of nature.

The practice is, I believe, kept up more in Derbyshire than in any other English county. There is an annual dressing of the wells at Buxton; and a recent number of the *Midland Times* gives a full description of the ceremonies performed at Tissington, near Ashbourne, where the decorations of the wells appear to have been unusually fine, and the visitation was conducted with some pomp.

But Flintshire has for centuries been the county most famous for its wells, and St. Winifred's, at Holywell, is, *par excellence*, the well of Great Britain. It was for many ages a great place of pilgrimage, and faith in its virtues is not extinct. Votive offerings of the crutches which patients have been able to cast away are to be seen suspended beside it. The water issues from the rock in such abundance that it has certainly, for the last 250 years, turned a large mill a few yards from its source. The quantity has been calculated at 100 tons per minute. St. Winifred's moss still continues to grew on the edges of the well. The well is covered by some beautiful groined work of the perpendicular style, supporting a chapel; the whole is much in want and very deserving of restoration. It overflows into a large basin or reservoir, which is filled at certain hours of the day. I found a few boys bathing in its cool and clear water between 8 and 9 o'clock in the morning. A few yards further down the stream a large swimming-bath, with dressing-rooms and other conveniences, was almost finished, and it will be found most useful by the people of the place, and especially by the workmen employed in the various metal works in the neighbourhood; this apart from all special healing virtues of the water. I fancy that to obtain them it will still be necessary to repair to the original well.

As it will illustrate the subject of such cures generally, I shall repeat some of the conversations I had with the people of the place. The old man of the well recounted various cases of cure, but the following is the most remarkable:—A woman was bent double and had lost her voice, and had been discharged from the Northampton Hospital after three years as incurable. After using the waters for three days, she became quite erect and regained her voice, and is now as straight as any other woman. On further inquiry, I learnt that the woman had, when brought to the well, been on each occasion two or three minutes in the water, that she was a recent convert to the Roman Catholic Church, and also that my informant was himself a Catholic. This, I believe, may be taken as a fair sample of the cures. There had been no treatment at all by the use of the water. I happened to tell this story to an artisan at the railway station, who was a Dissenter and a teetotaler. He immediately told me that Wales was not the country where such stories would be believed; still he had his own faith in the well. He knew that the water was pure, simple water, and he had no faith in St. Winifred, but he had seen Holywell water do more for people than any common water. A man who was listening to our conversation suddenly exclaimed: "Perhaps, Sir, you won't believe that I know of water that won't boil!" On asking him where it was to be found, he replied, "In Westmeath." He said he had never tried the experiment himself, but he had often seen the water put into a kettle, and set on the fire, and that it never could be made to boil. I have since had the curiosity to refer to Ireland, and got this information:—The well is holy, and is at Fore. There used to be two or three trout in it. An unbeliever took one out, and put it to boil in ordinary water. He kept watching, but the water never heated, and the trout went on swimming as in the well. He tried and tried to get the water to boil, but in vain. At last he got so frightened that he took the trout back to its well, and no one since has ventured to meddle with the trout. But, to return from my digression, the inference I drew from all that I heard at St. Winifred's was that persons of all shades of religious belief have still some remains of faith in its waters. The cures were, in their opinion, not the result merely of any systematic bathing in plain water; the water had some special virtue; and this applies to most of the other places I heard of.

There are many other holy wells in Flintshire and Denbighshire which I did not visit. They are generally recognisable by their prefix of Ffynnon or well. Some of these are—Ffynnonfair, some miles from St. Asaph, with an elegant building over it; also the well close to St. Asaph; St. Teclas' well, near Llandegla, famed for the cure of epilepsy; St. Elian, not far from Colwyn (now, by the way, more used for cursing than for curing); St. George, near Abergele; St. Beuno, in Caernarvonshire. The only other holy well I visited in Wales was that of St. Cadfan's, attached to the old church of that saint at Towin. There is a tolerably large basin of dirtyish water, with a rope across it, by which you hold on when bathing. But the place is not attractive, and the bath is little used.

When I inquired about wells of this kind in Cornwall, I found that they were numerous; that they are now no longer used; and this last season had so little rain that most of them were dried up, including the one nearest Penzance—Maern well. There are several others near Land's-end.

Though I visited no more holy wells, I had read such an account of the well of Llangybi, that I thought it worth while to pay it a visit. As quoted in a work on mineral waters of the year 1769, Dr. Rutty observed that "it had been known to demonstration that the water will remove all disorders of the eyes, cataracts not excepted; that it is good for scrofulous kernels, swellings, scaldheads, and ulcerated legs; in all eruptions, as leprosy, scurvy, itch, and wild warts; in all nervous cases, and in all rheumatisms, the palsy, rickets, convulsive fits, and lameness, of most of which the learned Physician has given remarkable instances, with the different manner of treatment in each case." It was further stated that "the proprietor, William Price, Esq., generously caused proper conveniences for bathing, and other improvements, to be made at his own expense, whence this excellent mineral water has recovered its ancient reputation, and a rational use of it has been lately introduced."

On making inquiries in Wales, I found, in the first instance, that no one had ever heard of the place. Even at the nearest railway station to it, its name was unknown. However, I made out the spot—a small village about four miles north-east of Pwllheli, in Caernarvonshire. The well lies at the foot of a hill, bare but for a little patch of wood. There is an abundant supply of clear water in a large well; this is received into a basin inclosed by a small building of considerable solidity. There was a shabby house adjoining, in which the woman in charge of the well resided. The water is hard, and has, perhaps, a slightly austere taste, and probably contains a little lime. It is, however, rarely resorted to now, and it has no character of sanctity attached to it. The neighbouring country is not particularly interesting; the climate is very moist, and it is difficult to conceive how the spring ever attracted attention.

But enough of our springs of pure cold water. They were never much used for drinking cures; it was mainly in bathing that their virtues were developed. There can be no revival of their use; nor, indeed, is it required, when all the effects of cold water can be obtained so much better in our hydropathic establishments. Never having resided in one, I cannot talk from personal experience of such places. As far as I can learn, strict hydropathic treatment, in the old sense of the word, has been abandoned, and drinking cold water is but little used in the cures. Hydropathic establishments are hotels with *tables d'hôte*—a superior class of *pensions*—at which you can live at a moderate rate, subjecting yourself to treatment or not, as you please. You generally move to an airy house in a healthy neighbourhood, meet a variety of people, and are obliged to keep regular hours and have a regulated diet. That this should be useful in many cases is only natural. That hydropathic treatment, when not overdone, is often beneficial, is beyond doubt. There are still many patients who really go to hydropathic establishments for treatment, and in many of whom the element of faith is largely developed; they believe in something more than rational hydropathic treatment. I have known ladies believe in an amount of Medical sagacity in female superintendents of water-cures far greater than they ever attributed to members of the Faculty. I have also known them say that a part of the cure, they believed, was owing to the prayers of the heads of the establishment, who were really pious people. It is also somewhat remarkable that clergymen have frequently written pamphlets in praise of particular institutions. I believe that, generally speaking, almost every variety of bath may be obtained in hydropathic establishments. Turkish baths, in particular, to which the English were particularly addicted some centuries ago, have come very extensively into use in them. They were the main treatment at the very popular establishment of Dr. Barter, at Blarney, who is recently deceased, and whose nationality led to the formation of the singular name used in Germany for Turkish baths—Roman-Irish baths. The situations of hydropathic establishments have generally been selected most judiciously, and they are to be found in very attractive parts of the country. There are many at Malvern, several at Matlock, three at Ilkeley, two well-known ones in Scotland—at Crieff, in Perthshire, and at Forres, in Murrayshire—besides a more recent one, established on the banks of the Clyde, at Wemyss Bay. Many of these establishments are the property of companies, but I believe

there are few of them which are not under the charge of a regular Medical man. There are many favouring elements in such places which ought to assist the treatment by rational hydropathy. I fear that there are still some hydropathic practitioners who must be considered irrational, who will undertake to treat any case, whether a suitable one or not for treatment, who inveigh against regular Medicine, and proclaim hydropathy a panacea.

While hydropathy appears to have relaxed its rules, and to be carried on much less systematically and positively than formerly in public establishments, it has made no progress as a domestic remedy. Everyone is satisfied that it is an inconvenient household mode of treatment, and no one has patience to carry it out in his own house in a case of chronic disease. There are, however, occasions on which it might be well to relax in its favour, in houses as well as in Hospitals, as in the case of typhoid fever. The most important application of hydropathy of late years has been in the treatment of that fever. It seems to have been found most successful in Germany, and the mortality of 768 cases treated in different places is said only to have been 4·7 per cent. Liebermeister recommends the use of cold baths of the temperature of 68° for ten to fifteen minutes, when the patients are tolerably strong; warmer baths are not nearly so efficacious. When patients are weaker he recommends repeated wet packings. Cold affusion is not liked by the patients, and is not nearly so efficacious. Patients themselves do not like the treatment, and Hospital servants complain much of the trouble of it; but if it really reduces the mortality so considerably, this is comparatively unimportant. The treatment operates beneficially mainly by reducing the febrile heat and consequently the waste of tissue. I have in former years seen cases of ardent and of remittent fever treated in India, in a regimental Hospital, by the wet sheet, with undoubtedly considerable reduction of febrile heat, and my friend thought the treatment very successful.

These results remind us of Currie's treatment of fever in 1798. The hints thrown out by him were, after a time, lost sight of, till the energy of the uneducated Priessnitz led to the whole subject being opened up again.

This rambling communication may be closed by two extracts, which will show that the idea of hydropathic practice was known in one country at least at a comparatively early period. "Highlanders sometimes wet a plaid in water, then turn themselves round and round till enveloped with the whole mantle, and lie down in shelter of a rock."—Burt's "Letters from the Highlands," Letter xxv. "John Campbell, forester, of Harris, when he had a cold, walked into the sea with his clothes on, then came home and rolled himself up."—Martin's "Western Islands."

35, Curzon-street, Mayfair.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CLINICAL REMARKS ON A CASE OF ASCITES, PROBABLY DEPENDENT ON LATENT TYPHOID FEVER.

(By C. HANDFIELD JONES, M.B., F.R.S.)

E. C., labourer, aged 22, admitted November 22, 1869. Dark complexion, hair, and eyes; face pale. His father, brothers, and sisters are well; his mother is supposed to have died of phthisis. He has had variola and rheumatism, but has otherwise enjoyed fair health; has had no enlarged glands. Was taken ill with an attack of rheumatism affecting the right knee three weeks ago, but did not take to his bed. Ten days ago he first noticed that his abdomen was swollen; at the same time he experienced an aching pain (in same part, I think). The abdomen contains a large quantity of fluid; fluctuation is distinct; circumference, just above umbilicus, 37 inches. The cutaneous veins are congested, and some very suspicious typhoid spots are seen on abdomen. Is thirsty; has no appetite; has had diarrhœa, on and off, the past three weeks. Temperature 100·76°; pulse 92, regular and of fair force. Tongue dryish and whitish. Intellectual faculties are quite clear. No effusion in any other part of body than abdomen. Spt. æth. nitrici, ʒss., inf. digital., ʒss. quater in die. Enema opii, hs. S. diet, beef-tea.

November 23.—Slept much better than he has for many nights. Abdomen measures 37¼ inches; he complains much of the distension. Spots have almost entirely disappeared. Urine high coloured, specific gravity 1030, acid, deposits lithates copiously; not albuminous. Auscultation discovers nothing morbid in lungs or heart.

27th.—Pulse 88, regular; temperature 99·3°; circumference 36½ inches. Quantity of urine not increased. Pt. c. mist. c. pot. bitart., ʒss. ad ʒj.

29th.—Abdomen measures 35½ inches; he feels better; temperature 100·4°; pulse 87.

December 1.—Bowels much relaxed last night; quieted by chalk and catechu; stools very light coloured. Circumference 34¾ inches. Abdomen much more resonant and less painful. Urine scanty; temperature 99·32°.

2nd.—Total urine of twenty-four hours, 31 oz.; clear and high coloured; sp. gr. 1030. A stool shown me was loose and quite pea-soupy.

3rd.—Circumference 33 inches. Temperature 100·76° in axilla, 99·68 in closed hand; enjoys a chop. ℞. Ferri et quinæ citr., gr. v., spt. æth. chl. ♏ x., aq. ʒ j. ter die.

8th.—Is doing well; gets stronger. Abdomen resonant everywhere; measures 31¼ inches. Pulse 88, weak. Temperature 99·68°.

15th.—Abdomen all right, but he has had, the last few days, an aching pain in the sole of the left foot, and in the left calf. Three days later benzole was ordered to be applied to the painful parts. This did much good, and he left the Hospital about the end of the month.

When this man was admitted it was clear that a large quantity of fluid was present in his abdomen; that he had ascites. The practical question was, What had caused this effusion? His history was not that of a sufferer from acute peritonitis; the effusion had not been preceded by severe pain or acute illness. Was it then the result of cirrhosis of the liver, or any slowly acting obstruction of the portal vein current? This seemed hardly probable; his disease was of recent origin; he was not notably emaciated, and there was no evidence of degeneration of the liver. Strumous peritonitis was a possible cause. There was some reason to think he had an hereditary tendency to suffer from maladies of this class, and his age was rather favourable to the view, as well as the recent occurrence of diarrhœa. But the short time during which he had been ill, and the absence of any confirmatory indication of the existence of struma prevented our inclining much to this diagnosis. A small symptom, which might easily have escaped notice, remains to be mentioned, and this, if I mistake not, affords a solution of our difficulty. A few spots, resembling sufficiently those seen in ordinary typhoid fever, and, like them, soon disappearing, were found on the abdomen. Had these existed alone, they would have had little or no significance; but concurring with diarrhœa, an elevated temperature, scanty urine, thirst, loss of appetite, a dryish tongue, and more or less insomnia, they afford very considerable evidence that the case was one of typhoid fever, though of a latent kind. It is very necessary for you to be aware that such aberrations from the usual course of the disease are not very infrequent. They have been known to experienced Practitioners for many years. Dr. Cheyne tells us that a Practitioner whom he met on one occasion described his patient as being affected "with one of those walking fevers," meaning that the patient was going about much as usual, though he was labouring under fever. So latent may the fever be, so little general prostration may it cause, that a man has been taken at his work with the symptoms of intestinal perforation. But you will ask me, How does the diagnosis of enteric fever aid us in accounting for the ascites, seeing that the latter is almost unknown, except where the intestinal disease has induced acute peritonitis? To answer this, let me remind you of what occasionally happens in pleuritic effusion, which may take place to a very considerable extent without any notable attendant pain or inflammation, so that the patient is scarcely aware that there is anything amiss with his chest. In such cases as these there is undoubtedly inflammation, but owing to some peculiarity in the serous tissue, probably an unusual permeability of the capillaries, the hyperæmia is dissipated as fast as it is produced, so that painful pressure on the nerves is avoided. Our patient, as I take it, was in somewhat the same condition as regards his peritoneum. This serous membrane underwent irritation at various spots from the inflammatory tumefaction and subsequent ulceration attendant on the enlargement of Peyer's patches, which in most persons would have given rise to acute peritonitis, but in the case before us resulted rather in serous effusion. The further progress of the

case is quite consonant with this view, especially the recurrence of diarrhœa with peasoup-like evacuations, and the complete recovery. There is another point I should like to have been able to speak more confidently about—viz., the absence of chlorides from the urine. This was inquired into, and my notes originally affirmed that they were extremely deficient; but I erased the statement afterwards, from a suspicion that the nitrate of silver solution had become spoiled. I am much inclined, however, to think that the observations were correct; and, if so, the view we have taken is still further justified. It is, perhaps, noteworthy that the man's illness began and ended with a rheumatoid pain, to which, on the last occasion, benzole seemed an appropriate remedy.

RADCLIFFE INFIRMARY, OXFORD.

FATAL CHOREA — AUTOPSY — VEGETATIONS ON MITRAL VALVE—PLUGGING OF MIDDLE CEREBRAL ARTERIES—SOFTENING OF PORTIONS OF BRAIN AND SPINAL CORD.

(Under the care of Dr. GRAY.)

JOHN T., aged 12, was admitted on September 1, 1869, with a first attack of moderately severe general chorea, which had begun without assignable cause about ten days before. On admission, there was a loud, blowing, mitral murmur; no articular or other pain. He had never had rheumatism. He died on the fifteenth day after admission, in a typhoid state, worn out by incessant and increasing choreic jactitation (affecting the legs most severely), want of sleep, and inability to swallow sufficient food. The mitral murmur remained throughout, but was much less pronounced the last four or five days of life. The temperature fluctuated between 99° and 100°, rising on the day of death to 103½°.

The treatment was as follows:—September 1, bromide of potassium, gr. x., every three hours; September 4, tincture of Indian hemp, mxv., every three hours; on September 8 and September 9, hypodermic injection of morphia (gr. ¼); September 10, inhalation of chloroform; September 11 to 13, tinct. opii., mxxx., at bed-time, followed in two hours by a second dose of mxx.; September 14 to 16, extract of Calabar bean, gr. ¼, every four hours. These several remedies were fairly tried, but failed, each and all, most entirely either to induce sleep or to quiet the chorea. Chloroform sent him to sleep for a few minutes, but only to wake up as bad as before.

Autopsy, twelve hours after death.—Chafing and excoriation of skin of face and all parts of body exposed to friction. Heart: A continuous fringe of soft fibrinous vegetations lined the edge of the auricular surface of the mitral valve—some firmly adherent, some loosely, some not adhering at all, but merely lying in contact, so as hardly to escape being washed onwards by the first stream of blood passing out of auricle into ventricle. Two of the aortic valve cusps had each one little adhering bead of fibrine; no emboli in spleen or kidneys; no disease of any other viscera. Brain: A short fibrinous plug blocked each middle cerebral artery just where it leaves the circle of Willis, the said arteries beyond these plugs being quite empty. Well marked softening of the adjacent parts of anterior and middle lobes for about an inch from the foramen lacerum anterius into the brain substance on both sides.(a) The greater part of the basilar and two vertebral arteries were filled with fibrinous plugs in a succession of detached pieces of one-eighth to one-quarter of an inch long. Except that there was great congestion of the vessels of the pia mater, and that section of the brain substance everywhere disclosed an abnormal number of bloody points, nothing further was noticeable. The spinal cord was removed for further examination. Duplicate sections were taken at different levels and macerated for three weeks, the one set in absolute alcohol, the other in chromic acid solution. At the end of this time, with the kind assistance of my colleague, Dr. Tuckwell, a microscopic examination of them was made. In respect of the cervical and lumbar portions, the results of the examination were negative; but the dorsal segments, both these soaked in chromic acid and those soaked in spirit, were certainly softened; they were extensively hollowed out down their centre, and too pulpy in their substance to admit of a thin section being made for the microscope. The membranes of the cord were healthy.

(a) These portions of brain remained quite soft after several days' maceration in strong spirit, when other parts not at all more accessible to the spirit had become hardened.

MEDICAL COLLEGE HOSPITAL, CALCUTTA.

ABSTRACT OF EIGHT CASES OF AMPUTATION AT THE HIP-JOINT.

(Under the care of J. FAYRER, M.D., C.S.I.; Surgeon-Major Bengal Army; Professor of Surgery, Calcutta.)

Case 1.—*Immediate Amputation for Gunshot Wound—Death from Tetanus.*(a)

M. S.-M., a Burman, aged 30, at Rangoon, shot in the left thigh, on February 15, 1853, with slugs. Head and neck of femur comminuted. He was brought to field-Hospital and amputated immediately, by antero-posterior flaps. He did well, and the wound had nearly cicatrised, until March 5, when, after a fright, he was attacked by tetanus, of which he died on March 17, just one month after the operation. There was no post-mortem examination.

Case 2.—*Re-amputation for Secondary Causes—Recovery.*(b)

S. A., Mahomedan, aged 16, was admitted into the Medical College Hospital, Calcutta, on April 10, 1864, with very severe injuries of the right knee and thigh, inflicted by a horse. Amputation of the thigh, at the lower third, by modified circular, was performed on April 12. Severe symptoms of osteo-myelitis and pyæmia set in, and the limb was amputated by antero-posterior flaps, on April 24. He recovered perfectly, and was discharged cured on July 31. He was subsequently employed as a tailor in the Hospital. The bone, on section, was found to be infiltrated with pus throughout the entire medulla. There were also small depôts of pus here and there in the bone.

Case 3.—*Re-amputation from Secondary Causes—Death from Pyæmia.*(c)

I. H., a Lascar, aged 36, was admitted into the Medical College Hospital, Calcutta, on October 2, 1865, with serious injuries of right knee and leg. The thigh was amputated on October 25, by modified circular, at lower third. On November 9, marked symptoms of osteo-myelitis and pyæmia having set in, the limb was amputated at the hip-joint by antero posterior flaps. He died of pyæmia on November 13. The thoracic cavity contained sero-purulent lymph. The lungs were studded with patches of dead tissue (the erroneously-called abscesses). The right cavities of the heart and the pulmonary artery contained firm, decolorised clots—the immediate cause of death. The bone, on section, contained isolated depôts of pus, and the medulla was pus-infiltrated throughout.

Case 4.—*Cancer—Late Amputation—Death from general Toxæmia.*

M., a Hindoo peasant, aged 25, was admitted into the Medical College Hospital, Calcutta, on October 6, 1865. Extensive medullary sarcoma of the knee and lower part of thigh; knee-joint disorganised; duration of the disease, five years, excited into action by an accident, and by puncture of the knee-joint with a thorn. He was very feeble, and suffered great pain. Amputation at the hip-joint, by antero-posterior flaps, was performed on January 15. He died on January 27, thirteen days after the operation, of pyæmia. The lungs were studded with cancerous and pyæmic deposits. There was a large abscess, mixed with cancerous matter, in the right lung. There was also a large gangrenous patch in the left lung; fibrinous coagula in the right cavities of the heart and in the pulmonary artery. The psoas and iliacus muscles were infiltrated with pus; the acetabulum was necrosed; the femoral artery and vein both seemed healthy.

Case 5.—*Re-amputation for Secondary Causes—Death from Pyæmia and Pulmonary Embolism.*

P., a Hindoo gardener, aged 21, was admitted into the Medical College Hospital, Calcutta, on June 24, 1867. His right knee-joint was disorganised, the consequence of an injury. The limb was amputated at the lower third of the thigh, by modified circular, on July 2. He had fever, secondary hæmorrhage, and osteo-myelitis. Amputation at the hip-joint, by antero-posterior flaps, was performed on July 4. He died on July 5, about twenty-six hours after the operation. The lungs were found to be anæmic; the pulmonary artery and right ventricle contained firm fibrinous coagula. There were no other pathological changes of importance. Death was caused, as it often is, by plugging of the pulmonary artery.

(a) "Clinical Surgery in India," p. 630.
(b) *Ibid.*, p. 609.
(c) *Ibid.*, p. 666.

Case 6.—Immediate Amputation after a Shark-bite—Death from Shock and Exhaustion.(d)

R. C., a Hindoo, aged 55 years, admitted into the Medical College Hospital, Calcutta, on May 13, 1868, with severely lacerated wounds inflicted by a shark, when bathing at a ghât in the Hooghley, within the city of Calcutta, and among a crowd of people. The left hip-joint and part of the bone was laid bare, and the bone grooved by the shark's teeth, the muscles frightfully lacerated. Amputation at the hip-joint by antero-posterior flaps was performed within a few hours after the accident. He died the some day, within six hours, of exhaustion. There was no post-mortem examination.

Case 7.—Late Amputation—Death from Exhaustion.

B., a Mahomedan, aged 20, admitted into the Medical College Hospital of Calcutta, on December 2, 1868, with a rapidly-growing cancerous tumour of the shaft and soft parts of the right thigh, attended with much local and constitutional suffering. Amputation at hip-joint by antero-posterior flaps was performed immediately. He died on December 7, of exhaustion. Cancerous deposits were found in the right lung. No other pathological change of importance.

Case 8.—Secondary Amputation for Gunshot Wound—Death from Pulmonary Embolism and Exhaustion.(e)

Lt. H., Bengal army, age 21, was shot accidentally, when out shooting at night, with a snider bullet, on September 12, 1867. The ball comminuted the head and neck of the left femur, and injured the ischium. The accident occurred at Trincomalee. He was brought to Calcutta. On September 25 I amputated the limb at the hip-joint by anterio-posterior flaps as a last and only chance of saving life, symptoms of pyæmia having already set in. He died a few hours after the operation, from exhaustion and the formation of clots in the pulmonary artery and right side of the heart. The body was examined. Clots were found in the right cavities of the heart and in the pulmonary artery. The lungs were pale and exsanguine. No other morbid condition. Reaction had set in after the operation, but with it the formation of the fibrinous coagula, which proved rapidly fatal.

Of these eight cases, three were re-amputations after amputation at the thigh. In all the system was more or less affected by toxæmia; one recovered.

Four were primary amputations, immediate so far as the operation in the treatment of the disease was concerned. In one, a case of gunshot wound, the patient had all but recovered from the operation, when he was carried off by tetanus.

One was a case of secondary amputation after a gunshot wound, when the constitution had become much affected, being a young man, and otherwise healthy. It gave him the best and only chance of life, but he died of pulmonary embolism a few hours after the operation. The results were:—

1. One recovery.
2. One recovery for a month. Death from tetanus.
3. One death from pyæmia and osteo-myelitis on the fifth day.
4. One death from pyæmia and cancerous pulmonary embolism on thirteenth day.
5. One death from pyæmia and pulmonary embolism on second day.
6. One death from shock a few hours after the operation.
7. One death from exhaustion on sixth day.
8. One death from exhaustion and pulmonary embolism in a few hours.

Royal College of Physicians of Edinburgh.—At the annual election meeting of the Royal College of Physicians of Edinburgh, on Thursday, the 1st inst., the following office-bearers were elected for the ensuing year:—*President:* Dr. Andrew Halliday Douglas. *Council:* Dr. John Moir, Dr. Robert Bowes Malcolm, Dr. Alexander Wood, Dr. Robert Paterson, Dr. James Matthews Duncan, Dr. William Sanders. *Vice-President:* Dr. John Moir. *Examiners:* Dr. Bell, Dr. Wood, Dr. Douglas, Dr. R. Paterson, Dr. Wright, Dr. Keiller, Dr. Pattison, Dr. Cumming, Dr. Duncan, Dr. Haldane, Dr. G. Balfour, Dr. Struthers, Dr. Ritchie, Dr. Stewart, Dr. Linton, Dr. Muirhead, Dr. Angus Macdonald, Dr. Fraser. *Treasurer:* Dr. Samuel Somerville. *Secretary:* Dr. Daniel Rutherford Haldane. *Curator of Museum:* Dr. William Henry Lowe. *Librarian:* Dr. William Cumming. *Registrar of Applicants for Licence:* Dr. Daniel Rutherford Haldane. *Clerk:* Mr. Christopher Douglas, W.S. *Auditor:* Mr. Kenneth Mackenzie, C.A. *Under-Librarian:* Mr. John Small. *Officer:* Thomas Marshall.

(d) *Medical Times and Gazette.* London, 1868. Page 657.
(e) *Indian Medical Gazette,* November, 1870, p. 270.

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SATURDAY, DECEMBER 17, 1870.

SANITARY REPORTS.

We have been favoured by a handful of sanitary reports made by the Inspectors of the Medical Department of the Privy Council. They all relate to towns and villages in the country, and the inspections were ordered in consequence of outbreaks of fever or in consequence of a special prevalence of disease of this class. The connexion of typhoid fever with excremental filth in the air, water, or soil, and of typhus with overcrowding, bad ventilation, and destitution, is so thoroughly established now that the doctrine has attained the rank of an axiom profitable for universal use. These reports show how the doctrine should be applied, and although they need not be regarded as adding new proof of it, afford, by the illustrations they exhibit, confirmation of its truth. They exhibit, however, something more, inasmuch as they assist in bringing into the light of day the extraordinary apathy which seems to pervade the country in respect of certain dangers to health and life, into the recognition of which our larger town populations have, at length, pretty generally been roused. It is highly satisfactory to observe that the action of the Medical Department of the Privy Council has taken this direction. We metropolitans, perhaps as much as any people, have cause to be thankful, since it is by no means a comfortable thought that when we migrate into a rural district in the expectation of breathing purer air than we get at home, we run the risk of walking into a fever trap. Unless, indeed, the conditions laid bare are pretty generally modified by the action of local authorities under the stimulus imparted by such government inquiries as these, we shall begin to think that London is, in fact, a more safe residence than the country, and that, instead of Londoners going into the provinces for change of air, the inhabitants of the provinces ought to be considering the advantages they are likely to derive from a visit to London.

Perhaps the best mode in which, with the space at our command, we can utilise these reports for the benefit of our readers, will be to point out some of the illustrations of doctrine to be gathered from them, and some of the instances of the sanitary apathy on the part of local authorities which they disclose. Generally, it may be stated that the condition of the villages inspected was simply disgraceful to a country calling itself civilised—the conditions observed being so uniform that the description of one would almost serve for the description of any other. A soil saturated with filth, either no privies at all or privies so badly constructed as to be worse almost than none,

the absence of all proper drainage, and a supply of water from surface-wells filled only with the soakage from the foul earth, from contaminated water-courses, or from springs exposed to the most disgusting excremental pollution.

The inquiry instituted by Mr. Radcliffe at Stamford is particularly interesting. A great part of the subsoil here consists of a porous and much-jointed oolite formation, which the intelligent inhabitants of the town have taken advantage of for the purposes of drainage. "It has been the practice to sink through the surface-soil down to the rock, in which large crevices and openings are met with. These openings are used as channels for conveying away sewage matter of all kinds." Cesspools sunk to such a rock, of course never require emptying (no doubt the good folks rejoice in the possession of such a convenient soil!), and many have never been emptied within the memory of man. "These hideous gulfs of nastiness exist in every part of the town, and almost every large dwelling-house has its own especial gulf, often situated within the limits of the building, and polluting the atmosphere with stench." About half the population, and more than half the houses, obtain their supply of water from private or public pumps, the wells being sunk into the strata beneath the town, in close proximity to the cesspools, and with certainty gathering their water from the latter by means of the ever-present fissures. The remainder of the population is supplied from some water-works outside the town. Now, the important thing is to notice the relation of these two water-supplies to typhoid. The public and private pumps supplied 1020 houses and a population of 4459 persons, and among these there is a record of 79 cases of typhoid. The waterworks at Wothorpe supplied 563 houses and a population of 3037 persons, among whom in the same period there were only 18 cases of typhoid. The analysis made of the well waters showed them to be simply sewage in an active state of putrefaction in some cases, and only less offensive in other cases. It is all very well to talk of soil pollution and soil emanations as the cause of typhoid, but it is impossible for anyone to get rid of the inference deducible from crucial observations such as these reports abound in. Here is another instance of the origin of typhoid in foul water: At the village of Annesley, in Nottinghamshire, the only fever cases in the parish occurred in a row of colliers' cottages, where excrement-drinking was the order of the day. They were supplied by two wells, one near each end of the row, and so placed—from the nature and dip of the porous strata, of which a diagram is given—as inevitably to become the receptacles of the filtered sewage from a row of privies, which were never anything but dry. One of these wells was nearer to the privies than the other, and the houses at that end of the row were those which furnished decidely the larger number of the cases of typhoid.

So much for water pollution. The case of the outbreak of typhoid at Forest-hill illustrates how this disease may be generated by sewer and drain emanations. Typhoid was constantly recurring here in a restricted area. "At this part of Forest-hill a part of the houses were built before the systematic sewerage, which is now being carried out throughout the metropolitan area, was required of the district local authorities, and the defects of their original drainage arrangements have never been rectified. Other houses, which have been more recently built, have been placed in positions in which the advantage of existing public sewers could not be obtained by the owners, and in which the local authorities could not require the owner to take advantage of such sewers." It was observed that "the degree of sickness of different parts of the locality, and particularly of prevalence of enteric fever, corresponded very closely with degrees of defective sewerage arrangements. Where houses are connected with the public sewers, there the sickness and prevalence of enteric fever has been at a minimum; where they are connected with estate sewers, which communicate with the public sewers but are of inferior construction, there sickness has been greater, and enteric fever more common; where the houses have cesspools attached to them, or they are connected with sewers which do not form a part of any proper system of sewerage, and which are of radically faulty construction and form—in fact, elongated cesspools—there sickness and enteric fever have been at a maximum."

One remark made by Mr. Radcliffe in connexion with this Forest-hill case is worthy of attention from metropolitan local authorities. One of the provisions of the Local Management Act is, that where the authority has no sewer within a certain distance it shall be permissible, and may be required, to drain into a cesspool. Where this is done it is customary to regard it as the duty of the owner or occupier of the premises to cleanse and empty the cesspool as often as requisite. But he maintains that it is the intention of the Legislature that this work shall be done in such cases by the scavengers of the local authority itself. And he blames the Lewisham Board for its neglect in this respect. He holds that, by allowing outlets to cesspools, a Board renders itself responsible for any nuisance arising. If this be good law—and we suppose Mr. Radcliffe would not state it haphazard—the local boards and vestries in London have ever since 1856 been going wrong in requiring owners to do what they are bound to do themselves, with the alternative of providing competent sewers, into which they may call upon house owners to drain.

It is a constant complaint against local authorities in country places, that they either appoint no one to act as an Inspector of Nuisances or make that office a sinecure. A curious illustration of this is furnished in Dr. Buchanan's report on Sittingbourne and Milton. The Commissioners who govern the latter place, he says, "employ a Sanitary Inspector. This fact is not generally known in the town, as the old man's chief and nearly constant occupation is at the town gas-works. For the last seven years he has worked at gas-making, receiving a guinea a week, and when he was appointed Sanitary Inspector two years ago, no extra payment was made him. From this inspector I gained such information as I could in the intervals of drawing the gas furnaces. He attends to such complaints as reach him—that is, he sometimes goes and remonstrates with individuals. He has served one notice this year. He cannot write, but he reported verbally to the clerk, who thereupon prepared the notice. It was to order some dung to be removed from the edge of the road. This was done, but the dung was soon replaced, and has since caused the usual nuisance. No further notice has been served, and no summons has been taken against the offender. The inspector knows nothing of the provisions of the Nuisance Removal Acts."

Another sort of neglect is noted at Whitehaven. All readers of sanitary reports will recollect Dr. Bristowe's account of the horrible state of this town in 1863. The result of the agitation then made was that, at considerable cost, a system of sewers was constructed, completed in 1868, with branches into every street and court in the town. Surely the result of this should have been seen in the death-rate from enteric fever and other diseases due to excremental impurity, for the drinking water is unexceptionable. Yet Dr. Buchanan was sent to Whitehaven to report on account of a fearful fever mortality, and it came out that, although all this expense was incurred, the local Board of Health had been so apathetic in the matter of town purification, that more than half the houses either had no closet at all, or were left to use the midden- or tub-closets which they had in use before any sewer arrangements were made. And this has been done in the face of urgent reports from their own officers. Dr. Buchanan says—"What is wanted at Whitehaven is essentially such a strong public discontent with the state of the town as shall carry into the local board men resolved on complete sanitary improvement." Unfortunately, if we are to wait for this before cleansing some of our filthy towns and villages, Macaulay's New Zealander will be the first to arrive.

TWO COURSES OF LECTURES.

Those of our readers who have noted the peck of promises annually poured out by certain of our contemporaries at the beginning of each year, and the grain of performance painfully doled out during its course, will, we think, sustain us in our practice of pointing to past deeds as a sure guarantee for the future; and such promises must at all times prove unsafe if we consider the exigencies of this life, the chances of interrupted labours, of illness, or even of death itself. Nevertheless, we are glad to be able, with all reasonable security, to announce for our columns in the new year two series of lectures on subjects interesting at all times, but specially now, when the fruits of many a weary research are getting ready for the gathering, and light begins to shine where all was darkness. The titles of these two series are as follows:—

A Series of Lectures selected from Professor Laycock's Course on the Practice of Medicine, delivered in the University of Edinburgh. 1. On the Clinical Observation of Diseases of the Nervous System. 2. On Diseases of Organs and Tissues as influenced by the Vaso-motor and Trophical Systems.

A Course of Lectures on Experimental Physiology, delivered at University College in 1871, by Dr. Burdon Sanderson, F.R.S., F.R.C.P., Professor of Experimental Physiology in University College; and T. L. Brunton, M.D., Sc.D., Lecturer on Materia Medica at the Middlesex Hospital.

On the bearing of each a word may be said. All observation goes to show that in our systems cause and effect are so intermixed, that in estimating the whole series of phenomena reaction must be considered as well as action. A blood poison not only poisons the blood, but induces changes in the organs supplied with it—among others, the nervous system—and hereby a new series of changes, due to morbid nerve action, are set a-going. And so, though the so-called nerve pathology gives but a very imperfect idea of the causation of disease, our idea is still more imperfect when it is left out. Ordinary spinal nerves contain three sorts of fibres: sensory, motor, and ganglionic. Of these, two sets would seem to be specially concerned with the nutrition of a part or organ—the sensory and the ganglionic. Take an appropriate example: section of the ophthalmic division of the fifth nerve is speedily followed by dryness of the conjunctiva, by redness and inflammation, and finally by total destruction of the eyeball. This, say some, is due to the absence of the ordinary secretion, and the action of irritant substances it would have washed away, and they point to the fact that, if after section of the nerve the eye be protected, inflammation does not follow. This may be very true, but it does not explain why a simple superficial affection should so speedily invade and destroy all the tissues of the eyeball. Brown-Séquard's well-known experiments on the cervical sympathetic need scarcely be referred to at the present day, but the extraordinary influence one particular branch of the pneumo-gastric has, when stimulated, in retarding the action of the heart might be noted. Even the phenomena of blushing should not be forgotten. Everything renders it plain that nerve influence is powerful in predisposing to or inducing disease—a fact too long forgotten in the microscopic study of pathologic changes, but not to be ignored in the causation of disease. Even the phenomena of a paralysed limb or organ, the smooth and glossy-looking surface of the former especially, the tendency to sloughing, all point in one direction—the importance of healthy nerve action.

Nor is the subject of experimental physiology less important even to the practical Physician or Surgeon, for by experimental physiology we do not mean cutting and carving living animals merely, but careful experimental inquiry into the phenomena of life—the creation of artificial instances where ordinary experience fails. There is inflammation—what an influence in practice has the doctrine that the blood is not the direct and immediate cause of its phenomena exercised in practice! And then, again, the normal is the starting-point for the study of the abnormal; and yet you will hear men talking glibly of pathologic conditions who are utterly ignorant of the normal structure of the parts they discuss! Physiology has been too much neglected.

We may consider ourselves and our readers fortunate in having secured the contributions of two men so eminent in their own departments as Professors Laycock and Burdon Sanderson; but their productions are not the only intellectual cates we trust to lay before our readers: there are many others we might mention, but for the reasons already given we forbear. *Facta non Verba* is our motto.

The avidity with which the lectures of Dr. Richardson have been and continue to be received, encourages the fullest publication of discourses tending to give other, and possibly complementary, views of the same branch of science.

THE SORTIES FROM PARIS.—THE GENEVA CONVENTION.

All the accounts of the recently attempted sorties from Paris agree in describing the dissatisfaction which both sides have experienced in the working of the system for the relief of the wounded. Correspondents with each army detail, from their own observation and from reports of others whom they consider trustworthy, instances in which parties engaged in removing the wounded and burying the dead found no protection from the humane duty they were discharging, but were fired upon without distinction—and that in some instances from redoubts and earthworks over which the red-cross flag waved in deceptive irony. The Prussians are described as having appeared to take a fiendish pleasure in killing even the wounded. The French are charged with having slain, by a ruthless shell-fire, not only the German, but their own, wounded lying on the field. Owing in great measure to this, all the wounded in the battle of December 2 had not been removed from the field till the 4th. The delay, of course, entailed the most frightful aggravation of the sufferings of all, and cost the lives of many who, by timely care, might have been saved. The few survivors of the horrors of those two freezing nights were in a state of bodily and mental exhaustion described, with quaint grimness, by a Wurtemberg Surgeon who had attended to some of them, as being "a little alive." Gangrene and frost-bite will, of course, on the establishment of reaction in the starved and frozen bodies of these unfortunates, produce an amount of suffering from which, to many, death will afford the only prospect of relief.

The shortness of the December days must be allowed to account in a certain degree for the delay in the removal of the wounded; but the reckless disregard, on both sides, of the humane suggestions of the Geneva Convention is too well established to admit of doubt, and must answer for a very large proportion of the increased suffering and mortality. Granting the influence of these two factors in the causation of so much misery—one being inevitable, and the other likely to persist so long as frail humanity wages war upon its kind—there still remains a vast amount of avoidable disaster, for which, particularly on the part of the French, want of organisation must be held accountable.

The *Times* correspondent in Paris describes the results of this defect in vivid terms. It might, he says, be expected that in a large city, with 40,000 beds prepared for the wounded, and only three or four miles from the scene of engagement, effective measures might have been concerted for the prompt removal of the sufferers to the beds prepared for them. The contrary, however, was the case. British officers on the spot are said to have remarked that they had never seen harder fighting in their lives than had occurred in the front, and never such muddle and confusion as prevailed in the rear; that the worst days of Balaklava were nothing to it. There are about a dozen ambulance societies in Paris, which are not only independent of

one another, or of any central head, but actually work in rivalry rather than in concert. About 500 conveyances were sent out —150 by the International Society, and 130 by the Ambulance of the Press, and in proportion by the smaller societies. An immense number of persons bearing the red-cross badge went out, ostensibly as skilled attendants, but many were quite ignorant of the duties to be performed, and others, actuated by curiosity or less worthy motives, were not only perfectly useless themselves, but obstructed those who were willing to work. It is said that they actually squabbled over the wounded, in order to procure such as were considered valuable prizes—a wounded officer being held in high estimation, but a wounded Prussian in still higher. The return of the conveyances to Paris was a sad scene of jumble and unnecessary suffering. No provision had been made for any order either in going or coming; the rate of progress consequently was about a mile in two hours, and the injurious results of the delay and exposure to the bitter cold may be easily imagined.

Dr. Russell, whose opportunities of observing events from the Prussian head-quarters, and whose experience of warfare —greater, perhaps, than that of any living man—entitle him to express a decided opinion, has declared that the Geneva Convention, as it now stands, is doomed. Bitter experience has proved that the neutrality of its agents has only a theoretical existence on the paper on which the terms of the Convention were compiled. The result confirms the anticipations and objections which we have so frequently expressed.

During actual war, volunteer societies for the aid of the wounded must entirely surrender their liberty of action to the military and Medical authorities of the armies to which they are attached, and must cease to claim a neutrality which cannot practically be observed. There can be no half-military and half-civilian soldiers in the ranks; so, likewise, there can be no duality of nature among those engaged in the relief of the wounded. They must, for the time being, be the servants of the State. The State, on the other hand, is bound, during peace, to maintain in efficiency such a system of organisation as will readily admit of the reception and utilisation of all the aid which may be afforded by the zeal of volunteers in its military and Medical service. How far we are at present from enjoying the advantages of this elastic system is only too well known. How near we are to drifting into its exact opposite, and helplessly imitating in our Control Department the worst vices of the French Intendance, is coming gradually to light. In no department of the French army have the obstructive and stifling influences of the Intendance been more painfully felt than in the Medical, and it is high time for us to take lesson by the warning, and to avoid or remove in our Medical service all similar tendencies of the new system of control.

THE WEEK.

TOPICS OF THE DAY.

THE question of the composition of the conjoint Board of Examiners who are to conduct the examinations of candidates for general practice in England and Wales, is at present *sub judice*. We stated last week that the Colleges of Physicians and Surgeons had invited the co-operation of the Society of Apothecaries in framing a scheme for these exaaminations, and we entertain no doubt that the co-operation of the Society will be readily and unreservedly given. It is therefore, we believe, tolerably certain that the work will be performed by the three great Medical Corporations at least. The question that remains is, whether it is desirable that the four Universities of the kingdom—Oxford, Cambridge, London, and Durham —should be represented in the Board, either by examiners or assessors chosen by the University authorities. Theoretically, there can be no doubt that the balance of argument would be in favour of such a combination; but when we come to examine the question practically, the difficulties at present in the way seem well-nigh insuperable. In the first place, there is the main one we mentioned last week, that the Universities have hitherto refused to make the passing a conjoint Board an indispensable step to graduation. By this refusal they cut away the main argument for admission—the argument based on the principle of uniformity. But beyond this, the position of the University of Durham in regard to Medical affairs appears to us a very serious obstacle. The University of Durham is, we allow, a very eminent body; but we are not aware that it has attracted to itself any large number of candidates for graduation in Physic, or has created either greater or lesser lights in the firmament of Medicine. To pretend that such a body should bear a considerable, or even any, part in the examination of the great mass of English Medical Practitioners seems to us, considering the present status of the University and the number of its Medical graduates, simply monstrous. But on what showing can the University of Durham be excluded if the other Universities are invited? They all hold equal positions in schedule A of the Medical Act of 1858, and are equally represented in the General Medical Council. Then, again, a little reflection will show that the large majority of the examiners or assessors who would be nominated by the Universities would undoubtedly belong to one or other of the Royal Colleges, and would, in all probability, in their turn be selected by the Corporations to fill places on the Board. Admitting, therefore, that in the abstract the co-operation of the Universities is to be desired, we think that in the present situation of affairs the price to be paid for that co-operation is far too great. It must always be borne in mind that the admission of the Universities would by no means supply a single portal to the Profession, for they claim the right of admitting their own graduates, each by a postern of its own. In the case of Oxford, Cambridge, and Durham, there is also the objection to be considered that they are educational bodies, and it may be fairly maintained that educational bodies should not have part in the examination of their own students.

The disposition evinced by the Council of the Royal College of Surgeons, to encourage and offer facilities for the acquisition of British Medical distinctions by the natives of India, will command the approval of the Profession. It will be seen by our account of the proceedings of the Council, that the Council proposes to admit natives of India to the Professional examinations for the Fellowship, on producing proof that they have passed the matriculation examinations of either of the three Indian Universities, provided that the certificate of having so passed contain evidence that the candidate has been examined in Latin, and in one Eastern language in lieu of Greek. It must be remembered that to a native of India English is the classical language, and that the capability of passing a varied examination conducted in that language is in itself a proof of no mean attainments in linguistic studies. The cultivated natives of India, brought into competition in the lists of science and literature with Europeans, prove themselves formidable rivals. We have it on good authority that the Indian gentleman, Mr. Chunder Roy, who recently obtained the Fellowship of the College, proved himself no mean proficient in the modern languages of Europe, as well as a well-informed anatomist and Surgeon. The Council have also determined to allow candidates for the Fellowship to pass in German or French at their option. This is a wise concession, as many young men entering the Profession spend a certain portion of time in the schools of Germany, and there can be no doubt that the present course of political events must tend to the spread of the German language and literature.

Sir William Fergussen has set on foot a movement for adding to the Museum of the College of Surgeons a collection of ancient and modern Surgical instruments. We trust that the idea of

the President will be carried into effect, and we hope that the members of our Profession who may possess specimens of early Surgical instruments will contribute to the collection.

A fear is entertained in some quarters that the demonstrations of practical physiology which are henceforth to form part of the curriculum of the Royal College of Surgeons will give an improper and unnecessary impetus to the practice of vivisection, and that lecturers on physiology will think themselves bound to repeat before English students the scenes which in bygone days disgraced Magendie's class-room. This feeling, we believe, has found expression in a speech delivered by Mr. Gay, at a recent meeting of the Council of the College of Surgeons, and the matter has been referred for consideration to a committee of the Examiners. For ourselves, we cannot say that we share in the fear. We do not believe that English lecturers would inflict, or English students countenance, unnecessary animal suffering. Experimental physiology may be taught to a very great extent without the infliction of a scratch on a sentient being. The lectures of Dr. Richardson which we have published afford the best evidence of the complete power of annihilating pain which the knowledge of anæsthetics confers. Practical physiology, however, includes vast fields of micrology and animal chemistry which must be studied apart from the living animal. Still, the motives which have prompted the remonstrance to which we have referred command respect. Highly beneficial as we believe the instruction of students in the art of experimenting to be, we would forego even the advance of science which we think will accrue from it if it necessitated the disregard of the first dictates of humanity. But we not only do not believe such disregard to be necessary, but from our knowledge of our countrymen we do not believe it to be possible. The practice of wanton and unnecessary vivisections in every Medical school is not, we may safely assert, intended by the regulation of the Royal College of Surgeons, and would neither be countenanced by the Medical Profession nor by the public.

We regret to say that small-pox is on the increase amongst us. Seventeen deaths, we are informed, occurred from it in the Shoreditch district last week; eleven cases were those of unvaccinated persons. The Hospital lately opened at Highgate is reported full.

Elsewhere will be found a memorial, signed by sixty-six students at the College of Surgeons at Edinburgh, condemnatory of the conduct of those who have so improperly admitted women into their class-rooms. We understand that a document to a similar effect, signed by nearly the whole of the students of the Medical Faculty has been addressed to Dr. Christison and others. Dr. Andrew Wood, the representative of the College of Surgeons in the Medical Council, is to move at an early date a condemnation by the College of these unpleasant and mischievous proceedings in the College premises. It is hoped the College will take legal steps to stop them.

Mr. Russell has been appointed Lecturer on Chemistry in the school of St. Bartholomew's Hospital. Dr. Debus, F.R.S., has been appointed Examiner in Chemistry in the University of London. Both vacancies were created by the decease of Dr. Matthiessen.

A coroner's jury have returned a verdict of manslaughter against another baby-farmer—Charlotte Buchanan. A child under her care was allowed to die without Medical attendance. Its body, after death, was found emaciated, and there was only one tablespoonful of fluid in the whole alimentary canal.

A man fell down in Oxford-street a few days ago. He was placed in a cab by the police and driven to the Middlesex Hospital; but he died on the way. The post-mortem revealed engorged lungs and diseased heart. He was seen to fall by a person, who suggested that the police should take him to the nearest Doctor. The answer was, "Who is to pay the 7s. 6d.?" The sum of seven shillings and sixpence cost the poor fellow any chance of life that the immediate administration of a stimulant might have given him.

Dr. Barclay, of St. George's, has lately succeeded in recovering one shilling from the Post-office as a recompense for the delay of a telegraphic message. The Doctor, in consequence of the delay, started on a useless journey, and finding himself a loser in consequence, applied to the Post-office for compensation. The answer at first given by the postmaster was that there were no funds for compensation. But a fresh complaint was made, and eventually the Post-office Telegraph Department refunded one shilling. This, however, as Dr. Barclay observes, is an admission of responsibility. Addressing the editor of the *Times*, he asks, "If I be compensated one shilling for a useless message, why not my five guineas for a useless journey?"

DR. C. A. GORDON, C.B.

We are happy to hear that Dr. Gordon, having remained in Paris after the withdrawal of the diplomatic body, continues to enjoy good health. The last news from him was contained in a very short private letter dated the 6th inst. He mentions having been present during the great fight at Champigny, which he describes as far exceeding all that he had ever seen during the Indian mutiny or previous campaigns in that country. He entered into no details of the engagement, having to write very hurriedly during a short interval in his labours of attendance on the wounded, and as a member of the Central Relief Society.

SUICIDE BY RAILWAY.

Some months have now elapsed since the Duke of Cambridge, in order to limit the frequency of suicide among soldiers, issued an order depriving them of the care of their ammunition, except while on guard or other duty requiring them to have it. The order was most judicious, and, we believe, was for some time followed by a decrease in the number of cases of suicide—with fire-arms, at least. Latterly, however, the number of deaths of soldiers by being run over by railway trains has been rather remarkable, and the suspicion of their suicidal nature is being entertained. Within the last three or four weeks, four deaths of this nature have been reported, two having occurred between the 2nd and 9th inst.—in one instance a recruit of the 7th Dragoon Guards, only seven days' service, the other, a non-commissioned officer of the 91st Regiment at Aldershot, having adopted this method of self-destruction. The suicidal impulse having once taken possession of a man, the means of effecting the purpose are not hard to find. In this, as in all other human affairs, where there is the will there is the way.

EFFECTS OF SEWAGE ON LAND AND CATTLE.

All the articles on Stand 128, in the Agricultural Hall, were grown by means of the liquid sewage of the town of Romford, in Essex, applied by surface irrigation to a poor, gravelly soil. The following satisfactory results are stated:—

"The farm on which they were grown has been taken, together with a lease of the sewage of Romford, by Mr. W. Hope, for the purpose of showing how a sewage farm *ought* to be laid out and managed, and of proving the soundness of the scheme for utilising the sewage of London, sanctioned by Parliament in 1865.

"The annual rent paid for the Romford sewage is eighteenpence per head of the estimated population, or £5 per acre. The expence of application, including interest on expenditure, is £1 15s. per acre. Many experienced farmers and market gardeners have said that by no other known means of cultivation could the same crops have been obtained off so poor a farm. The specimens shown, although selected, are not much above the average produce of the farm.

"In the body of the Hall can be seen an old cow (No. 236), which three months ago was not only thin, but ragged. She has been fed since then chiefly on sewage-grown maize and

sugar-beet. This cow is one of 111 saved from rinderpest in 1867, and has been fed principally on sewage-grown produce for four years. Among the pigs (No. 424) can be seen three young white Suffolks, born on the Romford Sewage Farm on August 17, and reared there."

CONTAGIOUS AND INFECTIOUS DISEASES AT LEICESTER.

It has been decided, by a majority of a very small meeting of the governors of the Leicester Infirmary, not to adopt the suggestion of Dr. Barclay for providing cottage accommodation in the Infirmary grounds for patients suffering from infectious diseases. So little interest was felt by the governors in this vital question that less than a score of gentlemen met to discuss it. None of the county gentry, who usually attend Infirmary meetings, were present. We think the conclusion arrived at by the governors as singularly unfortunate. It is certain that detached buildings might be raised in the Infirmary grounds at a very moderate expense, and that they would answer the purpose of isolating cases of an infectious character. There would be no danger in this system either to the Hospital patients or to the surrounding habitations. We trust that better counsels may prevail at an early opportunity.

VACCINO-SYPHILIS.

Mr. Thomas Smith's case, reported on by a committee of the Clinical Society at its last meeting, is, we believe we may say, unique, so far as this country is concerned. A man was vaccinated by a district vaccinator at a parochial station in four places on the left arm from a child who was *apparently* healthy. No other person was vaccinated from the vaccinifer. The pocks on the man's arm ran their usual course, and three of them scabbed and scarred naturally. The seat of the fourth pock became that of a chancre, which was succeeded by the usual constitutional phenomena of syphilis. The vaccinifer also subsequently presented evidences of constitutional syphilis. It is nothing new to find latent syphilis become manifest after vaccination in an infant congenitally diseased. The parents, of course, denied having had syphilis, but such denial may be taken for what it is worth. Equally, as a matter of course, they blamed the vaccination for the illness of the child. It may be asked, then, What has been established by this case? We would answer that it is merely established that a man has been vaccinated from a syphilitic vaccinifer, and has really got a chancre: the course of events so far corresponding with what has been observed in numerous similar cases recorded on the Continent. But where did the syphilitic virus come from? The committee of the Clinical Society suggest that it might have arrived accidentally on the man's arm, but then, as in the notorious case in the Hôtel Dieu, no one can guess how it could have got there. And this is the curious part of the long series of cases now before the Profession. Foul lancets, the Surgeon's dirty fingers, dirty rags, and even mistakes of syphilitic lesions for vaccine pocks are freely suggested as explanations of the occurrence, but the relation of these things to the chancre fails to be brought home in individual cases. Is it not fair and logical, then, when in such cases it is ascertained that the vaccinifer was syphilitic, to follow the line of argument by exclusion, and to refer the chancre to inoculation from the vaccinifer? Unfortunately, in the instance before us, it does not clearly appear that the committee did exhaust by inquiry all other possible alternatives; and, to our mind, their investigation so far is not satisfactory. They leave the question pretty much where they found it. They do not even tell us whether it was the first or the last of the punctures which became the seat of the chancre. All that is known is that the Surgeon charged his lancet more than once. We would, however, direct the attention of those who insist so much upon the probability of an accidental contagion in such cases as this to a remark of Dr. Ballard's—that on this hypothesis it is strange that the only cases of venereal affection recorded as following vaccination should be cases of "infecting" syphilis. How is this? Is the secretion from soft sores less virulent or less likely to become accidentally applied to the vaccinated spot?

FROM ABROAD.—THE LYONESE AMBULANCES—THE WOUNDS FROM GERMAN ARMS—SUDDEN DEATH IN PHTHISIS.

The Medical body of Lyons are still devoting themselves with the utmost energy to the care of the wounded. First, they have divided their own city and its environs into four districts, each supplied with its own complete ambulance service; and M. Petrequin, at a crowded meeting at the public library, described at length their distribution and intended mode of operation in case of the town being attacked. One of the chief Surgeons of the city has been placed at the head of each of these four ambulances, and is to be assisted by other Surgeons and Medical students, while the *infirmiers* have been chiefly derived from the large Swiss and Italian colonies resident at Lyons. All kinds of *matériel* has been collected in abundance, so that the managers of the ambulance believe Medical aid at least will be forthcoming to any extent required. The *ambulances volantes* sent to the Army of the Loire have also been of great service in the various actions at Orleans and elsewhere. At Lyons, too, 800 beds have been provided for the sick and wounded arriving from this direction.

One of their ambulances, however, having fallen into the hands of the Germans, has, according to the *Lyon Médical*, had all its *matériel* seized, while its staff has been submitted to great humiliation, in violation of the Geneva Convention. It is said that General Werder replied to a remonstrance that he was well aware of the rules of the Convention, but that the war he was waging was a special war, while General de Treseow refused two of the Surgeons a pass into Belfort, on the plea that succour given to the sick and wounded in a besieged town would be a virtual revictualling of it. One of the Surgeons of the ambulance, writing from Luxemburg, states that the staff were made prisoners, and sent to Versailles, and were only restored to liberty and their ambulance by the direct intervention of the Prince Royal. Nearly all their patients and much of their provisions had been removed. Some of their subsequent misadventures seem to have been their own fault, for the Prince Royal, stating that they were much too near Mont Valérien for safety, offered them a safe-conduct to go where they would. They refused to stir, unless compelled by force. This was applied only to the extent necessary to remove them from the post they had taken up; and they were ordered to Metz, in order to tend the French wounded there. The journey occupied five days, and as the Germans provided only carriage, without taking care of their rations, they had a somewhat hard time on the road. Arrived at Metz, the French Medical authorities declared that they stood in no need of their aid, but the Germans refused to let them pass out again. The writer says that, after making vain endeavours during two days to get out, he, disguised as a civilian, effected his escape, as nearly 2000 of the French prisoners had done, in order to join the Army of the North.

In the same journal we find an interesting communication from two Surgeons, MM. Goujon and Félizet, on "The Effects produced by the Prussian Arms." In this they state that, in every 100 gunshot wounds, they have always met with the mean number of 70 wounds from fragments of shells, and 30 from balls. In every 100 produced by fragments of shells, they have also constantly found 60 wounds in the back, or at the union of the shoulder and neck, and 40 wounds in front, or of the sides, or of the limbs. The fragments of shell removed have been of all weights, varying from 3 grammes to 500 grammes and more. Sometimes they penetrate directly, producing the most fearful lesions, while at others they only glance on the superficies, or pass under the skin around prominent parts, becoming arrested soon after their entry, or when somewhat deeper. When

the bones are not crushed, these wounds usually heal readily; and in a Hospital in which the patients remained for two months deprived of salt, condemned to eat horseflesh, rationed in their bread, deprived of brandy, quinine, etc., and abandoned to the most terrible moral depression, still very numerous recoveries after shell wounds were obtained. All circumstances being alike, these wounds are not more dangerous than those caused by ball.

The German bullets, larger than those of the chassepôts, also differ from these in their form, being quite ovoid, more pointed on one side than the other, and having a transverse diameter larger by three millimetres. In the wounds they cause they follow a regular track, if they do not touch a hard object, the orifices of entrance and exit scarcely differing in extent. A great number of these balls only penetrate to a slight distance, and are readily found under the skin, which they sometimes detach to a considerable extent without penetrating to deeper parts. Their size renders their extraction more easy, and they are more rarely changed in form than the chassepôt bullets. The greater number of those wounded by them were struck in the legs, which is due to the Prussians not raising their guns to the shoulder, but only to the hip, when they fire. These wounds of the leg are usually but simple *sétons*, which rapidly heal. The wounds caused by the chassepôts are in general much more serious, the orifice of entrance being very small, while that of exit is three or four times larger, indicating great laceration of the tissues that have been traversed. The bones fractured by them are reduced to a great number of fragments, so that twelve or even fifteen fragments may have to be extracted. They also penetrate much deeper into the tissues, and, their size being also smaller, they are extracted with more difficulty. They are almost always changed in form, and often split into fragments, which may be found separated from each other, or projected into the soft parts at great distances. The authors, from the observations they have made, conclude— 1. The sword-wounds (*à l'arme blanche*) inflicted by the Germans are neither frequent nor serious. 2. Their balls are infinitely less murderous than those of the chassepôts. 3. It is by means of their shells that they have produced the greatest havoc. 4. This has depended less upon their mode of firing than upon the faulty positions which our men were made to assume. 5. All things being alike, the wounds caused by shells are not more serious than those produced by other projectiles.

The editor of the *Lyon Médical*, commenting upon the above communication, observes:—

"These observations are certainly interesting, but they are probably somewhat premature. We are afraid, until better informed, that these authors have scarcely had a large enough field of observation, and that they have in good faith exaggerated the redoubtable effects of our weapons and the lesser gravity of the wounds caused by those of the Germans. However this may be, and still bearing in mind the above reserve, there is this consolation in the statements — if there can be anything consoling in such a matter—that, speaking generally, our weapon is more murderous than the needle-gun, and that soldiers run less risk of wounds by rushing on the guns than in lying down to avoid the projectiles."

M. Perroud terminates a paper which he read at the Lyons Medical Society on "Sudden Death in the Subjects of Phthisis" with the following conclusions:—1. Although sudden death in the subjects of phthisis has been noted, it has been but little studied, and is in need of further investigation. 2. It may present several varieties; and thus it may be really sudden or only very rapid. 3. Rapid death may have for its cause a mechanical obstacle to the passage of air into the bronchial passages, as in œdema of the glottis, extravasation of blood into the bronchi, the fall of masses of tubercle into the bronchial ramifications, &c. 4. It may also be induced by a mechanical obstacle to the circulation of the blood, as in pulmonary embolism, cerebral embolism, or thrombosis of the cerebral vessels. 5. These two varieties are usually accompanied with their special symptoms, these especially consisting of some of the forms of dyspnœa. 6. Sudden death is the immediate result of nervous action. Whether this be reflexed arrest of the heart's action through the intermedium of the pneumogastric, or a nervous exhaustion of that portion of the bulb termed the vital point (*nœud vital*) by the intermedium of the same nerve. 7. The initial excitation of these nervous acts may have its point of departure in the heart and pulmonary artery, in the larynx and bronchial tree, in the pulmonary parenchyma, or even in the visceral pleura, as some sudden deaths which take place in hydrothorax seem to indicate.

NOTES OF THE GALLO-GERMAN WAR.

By a STUDENT.

No. III.

The Germans do not entirely subsist on regular army stores, although, of course, they chiefly depend on the regular transmission of *lebensmitteln* or catables from their own country. At Lagny, now the last station before Paris on the Metz-Châlons railway, gigantic trains, three or four in number, arrive every day, some having upwards of ninety horse-boxes full of various stores for army consumption.

These stores are pitched on to the ground opposite to where each horse-box stops, and one or two battalions of the town's guard are told-off to stack the bags of flour where they lie, or to cart away more perishable stores to a depôt. The provision-waggons and "requisitioned" carts of each regiment round the south and west sides of Paris then come to Lagny and fetch away three or four days' provisions, while four or five Cuirassiers or Uhlans drive a herd of oxen or sheep round the besieging army leaving at different points a certain number for the consumption of each regiment. The butchers are soldiers who were engaged in a similar calling before the war, and are paid a few extra groschens a day for this special service.

It must not be thought, however, that the Germans obtain entirely all their food from military depôts—there are, as far as I know, three other ways by which the soldiers can get an extra meal. The first way is to buy food—bread, meat, fruit, etc.—from regular shops. The second is by "requiring" it. No German soldier, however, is allowed to require anything on his own hook (to use a slang expression). This way of obtaining stores must be done through a commanding officer and a *Maire*, unless under extraordinary circumstances!

I can't say that the soldiers don't sometimes do a little private "requiring," but as a punishment awaits them should they be found out, they are either very good, or else they do it in such a quiet way that it is a thing very seldom heard of. When châteaux or houses are left unoccupied, they suffer proportionately to the value of their contents. Bavarians, for instance, think nothing of breaking up a table and a few chairs to make a fire of them, should nobody be in the house to show them where fire-wood can be obtained. Cellars left well stocked are thought quite legitimate spoil, and requisitions are not considered a necessary preliminary to sacking them. The third way of obtaining *lebensmitteln* is by buying them from men who, in carts, follow the army, and are called "market tenders." These merchants, with their carts, deserve a special description, being one of the most important features of the camps and bivouacs.

The market tenders are Germans from every part of the German domains; they usually accompany those regiments which are raised from their own town or its vicinity, and they never lose sight of "their regiment," although it may be decimated by war or disease, but stick to it until they are themselves carried off, or as long as they have a horse to drag the cart. The men are the strangest specimens of humanity that anyone might wish to find. Their dress is as varied as their fortunes: one meets them sometimes with a German's uniform coat, a departed Frenchman's red trousers, and a woman's bonnet; they are usually begrimed with dirt, they sleep, live, and sometimes die in their carts.

The carts have very strong wheels, but the rest is a tumble-down box with a canvas covering; they are drawn by two horses as a rule, but the "market tenders," when they get the chance of buying an old cavalry horse or obtaining one either by accident or requisition, add sometimes one or two extra horses to their team, so that it is very usual to meet a market tender's cart with four horses, some of which are attached to it by harness, some by bits of rope. They are

shockingly treated, half starved, cruelly beaten, and driven without cessation—morning, noon, and night.

The carts contain such stores as the market tenders are able to pick up on the march; they invariably carry two heavy barrels of *schnaps*, and generally bread, cheese, and a barrel of salt herrings; also a few boxes of sardines for officers. Now and then they carry such luxuries as ham, butter, and eggs, but not often.

The fortunes of these men are very various, depending on such a variety of circumstances as totally to upset any calculations. For instance, if the regiment that the market tender follows is a comparatively stationary one, bivouacing outside a fortress such as Metz, and he can get a regular supply of stores, he will be in the highway to make his fortune; but should the regiment be constantly on the march, constantly in action, and constantly passing through large towns where they can get plenty of provisions, the market tender gets little or no custom.

One told me that line regiments were far more profitable than cavalry regiments—which he accounted for by the difficulty found in following cavalry—and that they bought less, having often opportunities of "requiring" what they wanted.

Once I was obliged to take a ride in one of these market tenders' carts. Nothing on earth would make me ask for such a favour again; my clothes stunk of bad cheese and rotten eggs for fully a week after.

Whenever a regiment on the march bivouacs, the market tenders make their appearance, and there is usually a rush of men to fill their empty flasks with *schnaps*, and to buy what provisions the market tender has brought together. He generally clears his cart immediately, and retires somewhere or other where he obtains a fresh supply, and the poor horses appear the next morning dragging a new load. Where the horses rest, and where many of the new loads are obtained, are problems that have puzzled many a wiser man than I am.

It is a strange thing how the two belligerents differ in their appreciation of food. The Germans eat their brown or black bread with the greatest relish—they prefer it infinitely to white bread; the French, on the other hand, cannot eat it, but complain that it makes them ill. The prisoners now in Germany, therefore, get their allowance of white bread instead of the black. The wounded obtain their luxuries entirely at the hands of the Johanniters, and such-like friendly societies.

The Prussian military authorities provide no sort or kind of comfort for their wounded soldiers, so that it may be asked whether the looking after their wounded for them has not really tended to lengthen the war—for, had they had the entire onus of the thousands who have been placed *hors de combat* by wounds and sickness, it might have hampered them in money and material to a considerable extent, and would certainly be enough to cause even a Bismarck to halt and look round.

As far as Surgical appliances went, the instruments were not abundant, and when once blunted were next door to useless. I took out some strops with me which were greatly appreciated wherever I left them; they were square strops, about a foot long, made for grinding, setting, stropping, and finishing. I have often wondered why someone was not taken along by the head director of an army corps to sharpen instruments for the various Surgeons. I should think such an arrangement would be a very valuable one.

Splints of various kinds, and air and water cushions were very deficient. Of course, such things as water beds could scarcely be expected, and yet they would have been invaluable in several instances had they been forthcoming.

As to nursing, this important branch of Hospital work has been sadly neglected in most of the field Lazaretts and in many of the Hospitals that I have visited. The great nurses of the war are the Sisters of Charity. Roman Catholic French nurses attend the Protestant German wounded with an assiduity which is perfectly astounding in its devotion; and when one thinks that they whom they attend are for the most part enemies, both to their religion and country, one cannot over-estimate, in a human point of view, the feelings which actuate them to such good deeds.

When German officers are wounded, their soldier-servants accompany them to the Lazaretts or Hospitals, and it is very touching to see these rough creatures trying to become quiet and thoughtful nurses; they often show the most intense concern as to the result of the wound, which is much more feeling than I, for one, gave them credit for, as I have always looked upon the German character as of a most impassive kind—and as to their endurance of pain, this impression has been fully verified. One man actually died singing *Die Wacht am Rhein*, which, he said, would give him more than enough fortitude to bear a frightful operation in connexion with his spine; actually, while passing away, his lips moved, and one could see that even then he tried to sing that song, which seems to contain such a magical thrill in its solemn tones.

The servants of wounded officers often sit for days and nights by the bedside, taking no rest except what can be snatched by dozing in a chair, and seem even jealous if anyone offers to fill their place in order to give them a rest. If the officer die, I have seen these soldiers cry like children. Such signs of softness of heart are well worth noting, as in war the total disregard, not only of single lives, but of hundreds, is something wonderfully appalling.

There has not been such another sight on earth since the battles of the Huns, I am inclined to believe, as was seen after the battle of Gravelotte. Humanity must be of very little value, one would think, to allow such a scene as was to be viewed here to be enacted. The villages all around the battle-field were filled to overflowing by hopeless cases; men died every day by hundreds. Carts would come round and stop at each house which bore the sign of a red cross flag, and inquire if there were any more? "Yes, five more!" might be the answer; then four men, taking the ends of the sheets, would swing the bodies to-and-fro to get an impetus on, and then, leaving hold of the four corners, the corpses, one after the other, would be swung into the cart. When they got a good load, a couple of men, armed with a pick and a shovel, would go on ahead, and dig a little pit, and pitch the bodies in one after another! The grave might be in a field or kitchen-garden, and it is quite an accident if a man gets his last resting-place in a piece of consecrated ground; and as for burial service, poor soldiers have to rest in their graves without it.

THE VACCINATION ACT.

The following important case under the Vaccination Act, 1867 (30 and 31 Vic., c. 84, ss. 16 and 31), reported by W. J. Cooper, Esq., barrister-at-law, will have to be decided by the Court of Queen's Bench:—

Cambridge Borough Magistrates.—December 6.

Fetch v. *Rae.*

Mr. Fetch, clerk to the Board of Guardians to the Cambridge Union, summoned James Rae "for that he, being the father of a certain child, named Sidney Stuart Rae, under the age of 14 years, being within the Cambridge Union, he has not been successfully vaccinated, and that notice has been given to procure its being vaccinated, and that such notice has been disregarded."

Louisa Wisbey proved that the child was brought to Little Shelford, in the county of Cambridge, where it had been since November 20, by Mrs. Rae, but without notice. The child was 14 months old, and Mrs. Rae had since visited it.

Mr. Eaden (clerk to the magistrates): Two questions will arise—first, whether the domicile of the child's parents in the union is sufficient, or whether the corporal presence of the child within the union at the time of laying the complaint is necessary.

Mr. Fetch contended that the acts of the parents were merely an evasion of the Act of Parliament. By the 21st section of the Act—"If any registrar or other officer appointed by the guardians to enforce the provisions of the Act shall give information in writing to a Justice of the Peace that he has reason to believe that any child under the age of 14 years, being within the union or parish for which the informant acts, has not been successfully vaccinated, and that he has given notice to the parent or person having the custody of such child to procure its being vaccinated, and that this notice has been disregarded, the justice may make an order under his hand and seal directing such child to be vaccinated within a certain time; and if, at the expiration of such time, the child shall not have been so vaccinated, the person shall be liable to a penalty not exceeding twenty shillings." The effect of deciding that, if this child were removed out of the union, no penalties would be recoverable, would be to repeal in effect the whole section.

It was contended for the defendant that the child must be actually within the union. The domicile of the parents was immaterial, for the Act expressly said the child shall be in the union for which the informant acts; if otherwise, the statute might have said, "or in which the parents reside." It might be a *casus omissus*, but the bench would not supply the deficiency of the Legislature. A decision of Mr. Bruce, the stipendiary magistrate of Leeds, which coincided with this case, was quoted.

Mr. Fetch said they had given the parents notice, but could not give notice to the person who had the custody of the child, because they did not know the child was in her custody.

The Bench decided that no sufficient notice had been given to the person having the custody of the child; and that the child itself not being within the licence, they had no jurisdiction, and dismissed the summons, but granted a case for the Court of Queen's Bench.

If a case like this can occur in a comparatively small borough town, such cases might arise to an almost unlimited extent in the metropolis where parents were determined to evade the Act. The Court of Queen's Bench may, however, take a different view of such a transaction.

REVIEWS.

Life of John Heysham, M.D., and his Correspondence with Mr. Joshua Milne, Relative to the Carlisle Bills of Mortality. Edited by Henry Lonsdale, M.D. Longman. Pp. 173.

Heysham was born at Lancaster on November 22, 1753, was bound apprentice to a country Doctor, was a mere drudge, attended to the horse, and performed other menial duties. He early evinced his love of natural history. When out of his apprenticeship, he took his journey from Lancaster to Edinburgh on horseback, a distance of 170 miles. During his journey he was more struck with the appearance of Carlisle than of any other town, and even then determined to settle there in after-life. When in Edinburgh he chose for his thesis De Rabie Canina. After taking his Doctor's degree, he went on to the Continent, and studied at Rotterdam. He eventually settled in Carlisle. He almost immediately took steps with regard to the Carlisle Tables, and the town, he thought, was a fair representative locality for the purpose of establishing a correct life table. At that time it contained 6299 persons of a hybrid character. Cumbrians and Lowland Scotch in part would constitute nine-tenths. A few Flemish and more Irish would make up the remainder. With the growing manufactures of the city the relative proportions became greatly altered: there was a large influx of Irish, chiefly Ulster men, who found their way across the Channel in Whitehaven coal-vessels, and also a considerable accession of industrious Scotch from Dumfriesshire. There were two distinct classes in Carlisle, the industrious poor and the well-to-do, independent folks. In forming his tables, Heysham made no distinction whatever, and was content with the numerical method *per se*. At this time wages were fairly remunerative; food good; a fair amount of mutton was consumed, with vegetables, cheese, milk, and beer. Taking all things into consideration, Carlisle was as prosperous a town, and the people as well off, in 1780 as they are 1870.

Heysham thought, by taking the numerical system purely, he would arrive at the true value of life in the town, and from this draw a conclusion as to the value of life in general. Our space will not allow us to go into detail, or quote his tables, but they are well worthy of being studied, even at the present time, when vital statistics have so much advanced. Some of the most interesting subjects in this work are an account of the Jail-fever in Carlisle, the Foundation of the Carlisle Dispensary, and Heysham's Natural History Observations in Cumberland.

Dr. Lonsdale has well performed his duty, and has given us an interesting and instructive book. We finish with an extract of some length, but of value:—

"Dr. Heysham was a man of broad and vigorous thought, highly discriminative and sagacious. He belonged to a class of minds that may be characterised as eliminating and suggestive; his readiness in separating the corn from the chaff, and in clearing the ground for correct deductions, was only equalled by his ability to apply patent data to the elucidation of unknown laws. Zealous and painstaking in the solution of all questions submitted to his notice, and an adept at figures and classification, he was well suited to the numerical methods of inquiry, and to achieve success in a field but little trodden—that of vital statistics.

"Bills of mortality had engaged other minds than his, both at home and abroad, and previous to his time; but no one in England seems to have bestowed the same care in collecting the facts, and notifying the circumstances that necessarily creep in and modify the construction of all formulas resting on the contingencies of life and death. Slovenliness and incorrectness had attended most inquiries pertaining to health and longevity, and done no small amount of harm; thus the British Government, as will be noted presently, trusting to exaggerated rates of mortality, had unwittingly robbed the national exchequer by their grants of annuities and pensions based on false data.

"Dr. Heysham first made sure of the number of the population of Carlisle by a method that, in point of accuracy, almost amounted to a personal registration of each individual family. In collating the death-rolls, he recognised the age, sex, and matrimonial relations in the registered forms; nor did he overlook the general questions—the national status, the influence of war and peace, the dearth or abundance of provisions, the state of trade and local interests, the seasons of the year, the meteorological phenomena of the district, the prevalence of epidemics, and all other circumstances bearing upon the health, sickness, and mortality of the city. He kept his eye upon the actual increase of births beyond mere baptismal records; he noted the flow and ebb of Scottish and Irish immigration; the number whose patriotism led them to join the army and navy; and all the fluctuating circumstances surrounding an urban population.

"The accuracy which guided Heysham's observations on the rate of mortality in Carlisle proved of the highest significance to the general community of Britain, and, it may be added, to the world at large. Wherever the question of life assurance has been discussed throughout the civilised globe, Heysham's labours have been recognised and extolled for their meritorious application and usefulness. For it need hardly be said that the life or mortality table is the basis upon which the whole science of life assurance rests; it is as essential to the vital statistician as the barometer is to the meteorologist, the balance to the physicist, and the test-tube to the chemist.

"The value of Dr. Heysham's work in Carlisle can be best instanced by the serious errors that sprang from incorrect observation and records made elsewhere. When Dr. Price was constructing the Northampton tables, a great number of Baptists lived in the town who did not sanction infant baptism, and thereby reducing the ratio of the christenings to the births, led Dr. Price to believe that the population of Northampton was stationary! The average lifetime in Northampton was in reality about 30 years, but Dr. Price, overlooking the Baptists, assumed it to be only 24. It is now $37\frac{1}{2}$, or 13 years (one-third) more than he took it to be! 'And as a curious confirmation of the error, the mortality of the Equitable Society (which first used the Northampton table) was one-third less than that table predicted. But the most serious part of the business remains yet to be told. The Government adopted these tables as the basis for its annuity schemes. The same error which gave the Equitable and other societies using the table one-third too much premium, induced the Government to grant annuities by one-third too large for the price charged, and before the error was rectified, about two millions of money were lost to the country by these annuity transactions.'

"Guided by Dr. Heysham's published observations, and the explanations elicited by his lengthened correspondence (set forth for the first time in the appendix to this volume) with the author of the Bills of Mortality, Mr. Joshua Milne constructed his famed 'Carlisle Table.' From the date of the publication of Mr. Milne's table in 1816, a new era in the life assurance world sprang up. Conjecture, occasionally wild if not chaotic, had to give way to a healthful reasoning upon legitimate data and sober facts.

"Mr. Milne, whose experience as actuary to the Sun Life Assurance Society and high sagacity entitled his considerations to the fullest attention, was of opinion that although the Carlisle table had been constructed from the mortality of two parishes only, the results it exhibited would probably vary very little 'from the general law that obtains throughout the kingdom, taking town and country together, if we except the children under 5 years of age, or at most under 10.' 'In other respects,' says the editor of the *Insurance Guide*, 'it has undoubtedly been the best guide to healthy life' in England, from the date of its publication at least up to the completion of Dr. Farr's tables. It gave the expectation of life for males at 30 in Carlisle at $34\frac{1}{4}$ years. The average duration throughout England at the same age is $33\frac{3}{4}$ years, and in Sweden and Finland $32\frac{3}{4}$. Though the table showed results slightly too favourable for the whole country at all ages, the great fact remains, 'that all properly conducted offices, based upon the Carlisle table, have met their engagements, and for the most part had very large surpluses to spare.'

"Benjamin Gompertz, F.R.S., in his calculations by logarithmic formulas(a) of the value of life at certain ages, shows the

(a) "On the Nature of the Functions expressive of the Laws of Human Mortality, and on a New Mode of Determining the Value of Life Contingencies," in a letter to Francis Bailey, F.R.S., by Benjamin Gompertz, F.R.S. (*Lond. Philos. Trans.*, vol. cxv., p. 513). Gompertz had previously written on the same subject (*loc. cit.* A.D. 1820).

striking accuracy of Milne's tables formed on the Carlisle bills of mortality. Thus he found the value of the joint lives for ages from 20 to 30, at 3 per cent. and Carlisle mortality, to be 16·745, which, according to Milne's tables, should be 16·749; 'an insignificant difference,' as Gompertz very truly observes.

"It is a matter of fact that the Carlisle table, founded by Joshua Milne on the Carlisle bills of mortality, is used by a majority of the existing insurance offices. 'The English Tables,' based on thirty years' observation, and on data obtained from the records of mortality over the whole kingdom, will probably receive the attention of offices now forming, yet the two tables differ comparatively little. The Carlisle shows the lightest mortality, except at the extreme ages—namely, from 0 to 5 years, and from 74 years down to the end of the table, with the exception of one or two years. The minimum mortality in the Carlisle tables occurs at the age of 10; in the English table at 12."

"*Flowers from Fatherland*," *Transplanted into English Soil*. By JOHN PITCAIRN TROTTER, A. MERCER ADAM, M.D., and GEORGE COLTMAN, B.A. W. Blackwood and Sons, Edinburgh and London. 1870. Pp. 434.

THIS work, as we learn from the preface, is the joint production of the late John Pitcairn Trotter, Esq., Sheriff Substitute of Dumfriesshire, Dr. Mercer Adam, M.D., of Boston, and the Rev. George Coltman, Rector of Stuckbury, Lincolnshire. Acting on our general principle, of noticing the works of Medical men, whether strictly Professional or not, we commend this volume to the notice of our readers, not only on its intrinsic merits, but in order that our *confrère*, Dr. Mercer Adam, may receive the credit due to his literary industry and abilities.

The "Flowers from Fatherland" here transplanted to English soil are the best of the ballads and songs of Germany. Many of these have already appeared in English, some translated elegantly, but without strict fidelity to the form and tone of the original. Here let us transcribe a passage from the preface, which contains a rule of criticism which we wish had been observed by Dr. Andrew Wood in his version of Horace, and which we commend to such of our brethren as may be meditating translations of poetry:—"We conceive," say our authors, "that it is the duty of a translator to preserve *form* as well as *meaning*. Form, says Mr. Merivale in his preface to Schiller, is the very essence of poetry, and the soul itself escapes and evaporates in the transfusion of the sentiments into another shape of outward vehicle." These versions, then, are constructed on the principle of close fidelity to the German, and in many cases they agree with it line by line. They are faithful, also, as regards double rhymes, and, as far as possible, the spirit and style of the original poet. Having premised thus much, we may state that Bürger, Schiller, Körner, Uhland, and Heine are the authors whose ballads are transplanted, in addition to a set of students' and convivial songs. To say that some are redolent of a strange compound of the mysterious and the horrible, and others of frantic revelry, is superfluous; and whether our readers delight in midnight spectral dreams, or in "woman, wine, and song," they will find that Dr. Mercer Adam and his fellow translators will enable him to enjoy each in highest perfection. We are sure that the "English soil" will not be an uncongenial *habitat*.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

December 9.

THE old students of the Birmingham Schools of Medicine, at the invitation of the President, Council, and Professors of Queen's College, dined together on the 8th, at the Great Western Hotel, under the presidency of the Earl of Lichfield. Upwards of 100 members of the Profession sat down to dinner. Aldermen Avery and Wiggan were also present, representing the lay element of the College. Dr. Melson, one of the eldest students of the College, occupied the vice-chair. The dinner was served up in the host's best style, and the *menu* was all that heart—or stomach, rather—could desire, and in strict accordance with the gastronomic art. The following toasts followed the repast, and were ably dealt with by the several speakers:—"The Queen and Royal Family;" "The Bishop and Clergy;" "The Army and Navy," represented by two of our Profession—Dr. Waller, of the Royal Navy, Mr. Oates, Surgeon of a yeomanry corps; "*Floreat Collegium Reginæ*," which may be considered the toast of the evening, to which the Warden eloquently responded. In the course of his remarks he spoke highly of the present condition of the College, and predicted for it a glorious future, which he was justified in doing, seeing that the students now number 100 and upwards; he also alluded to the heavy load of difficulties under which the institution had lain and suffered for some years, and which had now been happily removed, mainly through the exertions and instrumentality of the Earl of Lichfield, who has ever taken a lively interest in the affairs of the College. It appears that the debts of the College have been wiped off, and its income is commensurate with its expenditure—a feature, I believe, never before known in its extraordinary vicissitudes. "The President" was proposed by Mr. Bindly, and "The Officers and Council" by Mr. Alderman Wiggan, having for their respondents Professors Berry and Russell. The former was the much honoured Lecturer on Midwifery in the olden time, and he remembered with pleasurable satisfaction his former labours amongst the students, considering himself as a connecting-link between the past and present generations of them, for he was still with them in his capacity of Clinical Lecturer. Afterwards came the "Health of the Professors," proposed by Alderman Avery, the ex-Mayor of Birmingham, who gave some details concerning the financial state of the College exchequer, showing that the Council, after paying the ordinary working expenses of the College, could apportion amongst the Professors acceptable emoluments. Professors Pemberton and Jordan replied. The former spoke of the stepping out of the ladies from their natural sphere of labour into the domain of Medicine, and doubted very much whether they would equally shine in it. I will not say that these were his exact words; but they were much to the same effect. From the tenor of his remarks, I am afraid the fair candidates for Æsculapian renown would have but little chance of entering the portals of Queen's College as Medical students.

The next toast was "The Old Students of the College," proposed by Dr. Fleming, and responded to by Dr. Melson, Mr. H. Clayton, Dr. Benett, and Dr. Harrison. Dr. Melson was the "Nestor" amongst the students, and he gave an interesting account of the early days of the College, and how much he was indebted to his *alma mater* for the position he had attained in after life. From him I learned that the College had had, as it were, three lives. It first sprang up in Snow-hill, at the very spot whereon we feasted; then in Temple-row, and afterwards at its present site; and that its former abodes were anything but savoury and conspicuous. He gave an amusing account of the manner in which "subjects" were obtained and conveyed to the College, and he spoke of Mr. Sands Cox in the most flattering terms, whom he designated the "founder" of the institution. I could not but notice that Dr. Melson was the only speaker who mentioned Mr. Cox's name. The last toast was "The Hospitals," proposed by Mr. Underhill, and responded to by Drs. Heslop and Wade. Being summoned away just at this time, I cannot report how it was handled.

The meeting was a decided hit, and, from the sentiments expressed by the guests, it is likely to take place annually.

Another fearful catastrophe at a cartridge manufactory has just taken place. This is the fourth of a similar kind within three months, and the most disastrous. Want of space prevents me giving you the details of this appalling event, which has caused intense excitement in the town and neighbourhood. The results of it are most calamitous in loss of life, horrible injuries to girls and women, who were mostly employed, and destruction of property. The following short statement will show the number of the victims killed and wounded:—Fifty-three were taken to the General Hospital; sixteen died at the factory, or before the Hospital was reached. The injuries were of so fearful a character that it is probable that forty or more deaths will result. It speaks highly of the staff of the Hospital and its organisation when I tell you that the whole of the fifty-three patients were dressed, bedded, and supplied with brandy and opium within one hour after admission! showing the fertility of the resources of the charity, and that they were equal to the emergency in this time of trial. I hear that several more deaths have just occurred. Such are the results of the holocaust which has affrighted Birmingham to-day.

One of the interesting events here has been the publication of a volume of essays by the members of a local society called the Birmingham Speculative Club. The Club consists of some ten or twelve members, who meet from time to time to discuss topics of social and political importance; and the volume represents the practical results of their collective wisdom. I have the volume before me, and I can assert that it reflects credit on the publisher and the writers. It has been favourably spoken of by the London press, and has received the high sanc-

tion of that fastidious organ the *Saturday Review*; therefore, Birmingham has some reason to be proud of the literary character of the volume. The two essays which are more interesting to the Medical Profession are those entitled "Euthanasia" and "Method and Medicine." The former is a well-written paper, which attempts to prove that, in all cases of hopeless and painful disease, it is better, and should be the duty of the Doctor, to put the patient to a quick and painless death by chloroform or some other anæsthetic. "Method and Medicine" is by Dr. B. W. Foster, and is an excellent review of the history of the development of scientific Medicine, full of interesting information as to the devious ways by which Medicine has struggled on towards a higher place, and contains sound reflections on the present shortcomings and their causes. This essay is published in a separate form, and is nicely got up.

Dr. Jolly has been elected, without opposition, Surgeon to the General Hospital—Dr. Savage having retired from the contest. The estimation in which Dr. Jolly is held by the public and the Profession is shown by the "heaps" of testimonials, some partaking of an expensive, tangible form, which have been presented to him on his leaving the Queen's Hospital, where he has been the able House-Surgeon for upwards of four years. He has made many friends, and in his new sphere of action, taking with him the best wishes of all classes, he will, doubtless, increase his well-deserved reputation. To play upon his name, we may in truth say that he is a "Jolly" good fellow.

LIVERPOOL.

December 12.

During the week ending December 3, there were 410 deaths in Liverpool, and only 408 births. The annual death-rate, estimated from the actual number of deaths during the week, which, in the seventeen largest towns, Liverpool included, averaged only 25·2 per 1000, in that town reached the alarming proportion of 41·3 per 1000. For the week immediately preceding, the average had been estimated at 36·7. The rise is not attributable to any increase in the fatality from diseases of the zymotic class, which, indeed, was exactly equal in the two weeks, but most probably results from the considerable alternations of temperature which mark the commencement of winter, and which, acting on the ill-clad, ill-fed, badly-housed, and drunken part of the population—and that is, unhappily, a very large part—make easy victims of them.

Relapsing fever is undergoing a very marked decline, not merely in the borough, but in the out-townships also, which it visited last. In the district of Toxteth, which suffered very severely, the numbers under treatment by the parish Medical officers, on the 30th ult., were as follow:—In the workhouse, 274; in private houses, 534, or, altogether, 808; while, on the 7th inst.—that is, just one week later—there were 300 in the house, but only 424 under treatment at their own homes, making a total of 724.

The deaths of nineteen persons resulted from small-pox, and of these nineteen, only one was returned as having been vaccinated; four had certainly not been vaccinated, and fourteen were doubtful, the cicatrix being very small or undistinguishable. At present, the epidemic has hardly touched the parts most affected by relapsing fever, Vauxhall ward, one of the most crowded, dirty, and poverty-stricken wards in the borough, having scarcely a case; whereas, nearly every house in entire streets throughout it, was visited severely by fever. Twelve of the nineteen deaths occurred in the out-townships, and others in closely adjacent wards, pointing to a slow progress by direct communication. That this progress could be checked, and the disease itself stamped out by revaccination in every doubtful case, and by the strict enforcement of the Vaccination Acts, scarcely admits of doubt. But whether the first proceeding, which has been forcibly urged by Dr. Trench, the very able Medical officer of health for the borough, will be adopted, admits of grave doubt. There has been a slight decrease in the number of fatal cases of scarlet fever, giving some hope that the epidemic, which, however, is still terribly severe, is moderating.

The Directors of the Glasgow Maternity Hospital have elected the following gentlemen as the Medical staff of the Hospital for the ensuing year:—*Consulting Surgeon:* George Buchanan, M.D., Professor of Anatomy in Anderson's University. *Physicians-Accoucheur:* J. G. Wilson, M.D., F.R.S.E., Professor of Midwifery in Anderson's University, and R. D. Tannahill, M.D., F.F.P. and S.G.

GENERAL CORRESPONDENCE.

DIRECT REPRESENTATION ON THE GENERAL MEDICAL COUNCIL.

[To the Editor of the Medical Times and Gazette.]

The demand for direct representation of the Profession on the General Medical Council has been so persistently made for some years past, that a large number of the Profession has acquiesced in the justice of the demand, without inquiring into the grounds on which its advocates rely or considering what might be the result on the future operations of the Medical Council.

The agitation of this question has been mainly conducted by the British Medical Association, and the object is clearly expressed in a memorial presented by the President of the Council of that body, which was read at a meeting of the General Medical Council, on June 30, 1868, viz.:—"The Association is of opinion that the addition of eight members to the General Medical Council, far from embarrassing its proceedings, will add to the confidence already reposed in the Council, and materially increase its influence."

The memorialists have not attempted to show in what respects the influence of the Council would be materially increased by the addition of "eight members to be elected by the registered members of the Profession, by voting-papers, to be distributed and collected by the Registrars of the Medical Council in the respective counties;" but they have asserted that such an addition would be "far from embarrassing" the proceedings of the Council.

It has been frequently and strenuously argued, in favour of direct representation on the Medical Council, that the Profession, being taxed for providing funds to maintain the Council, has thereby acquired a right to have a share in sending representatives to that body. The fallacy of this argument is manifest from the fact that the tax for registration has been imposed by the State on the Profession, and, as a recompense for the registration-fee, certain privileges are conferred by the Medical Act. The State having created the fund derived from registration, has directed that it should be applied by the General Medical Council to carry out the objects of the Act.

The secession from the Council of the British Medical Association of five eminent members, including three ex-Presidents of the Association, on the grounds that the Amended Medical Bill, introduced into the House of Lords by the Lord President of the Privy Council, "was withdrawn in the House of Commons by Mr. Forster in consequence of the course pursued by the direct representative Committee of the Association" is very significant respecting the doubtful policy of direct representation, inasmuch as the only notice taken of the secession which has appeared in the journal of the Association is—"We regret to read the following communication in the *Times* of Thursday" (September 1, 1870).

In the absence of any definite object on the part of the Council of the British Medical Association, beyond the addition of eight members to the General Medical Council, to be elected by registered Practitioners, a clue as to what might be expected from a Reformed General Medical Council is furnished by "The Council of the Shropshire Ethical Branch of the British Medical Association."

"At the annual general meeting, held at Shrewsbury, on October 3, 1870, it was unanimously resolved—'That the following tariffs of Medical fees, which have been submitted to, and discussed by, the meeting (having also been previously circulated among the members for their consideration and emendations), be approved and recommended for general use by the associates of the Branch.'"

The Council "deem it their duty most emphatically to disclaim the slightest wish or intention to dictate either to the members or to other Practitioners in the matter of Professional charges;" yet in the following paragraph they look forward to some future General Medical Council for assistance, by stating that "although the General Medical Council alone could promulgate anything like a *compulsory* scale of charges, your Council are of opinion that a *recommendatory* tariff will not only prove useful as a guide to the junior Practitioner—often in doubt as to the remuneration to which he is fairly entitled—but serve as a reference in cases of dispute, and thus tend to prevent litigation and promote a friendly arrangement."

I may now proceed to consider the "tariff of Medical fees (founded upon that of the Manchester Medico-ethical Association)," the primary feature of which is the distribution of

patients into three classes, the limits of each being fixed by "the house rental, as it ranges from £10 to £25, £25 to £50, and £50 to £100 per annum," besides which there are exceptions "in the case of *farmers*, *lodgers*, and *tradespeople*," together with "a still lower grade of the commonalty that may fairly be called on to pay more or less, according to their circumstances," and the members of the Association are recommended to attend the latter class at reduced fees, on condition that "such nominal charges, however, should always be made, if possible, for ready-money."

The Council condemns the objectionable system of "drug payment," and desires that the *supplying* of medicines by the Practitioner should become obsolete; but as there is no immediate prospect of such an event, the Practitioner is comforted by the consideration that "the cost of the drugs may be regarded as counterbalanced by the retaining hold he has upon the patient, irrespective of other contingencies."

The "retaining hold" seems to consist in opening an account for attendance and medicine supplied with the patient, because "the Council would strongly recommend such Practitioners, while charging the items separately in the ledger, to send in a simple account for the sum total, and to allow any dissatisfied patient to refer to the ledger for particulars, rather than submit to the degrading system of drug details."

The plan here recommended appears to be a distinction without a difference.

For the payment from patients who are "booked," the Practitioner is to rely on "the retaining hold he has upon the patient, irrespective of other contingencies," but the nominal charges for attending "a still lower grade of the commonalty" should be "for ready-money." Such practices, and the method suggested for escaping from "the degrading system of drug details," are lamentable proofs of the degradation of the noble principles of Medical ethics, by the members of the Shropshire [shopshire?] Ethical Branch of the British Medical Association.

There are two tariffs or scales of Medical fees, one inclusive of medicine, the other exclusive of medicine, and the prices in both are fixed according to the three classes based on "the house rental."

Very nice distinctions as to the charges for attendance in each of the three classes are laid down, with a discretionary power of varying the charges—*e.g.*, "Ordinary visit—I. (first class), 2s. 6d. to 5s.; II., 3s. 6d. to 7s.; III., 5s. to 10s. 6d." And in tariff No. 2 there is an example of what a barber would call "close shaving," as "works" (persons employed in factories?) are to be charged six-farthings per week per head, exclusive of medicine, while "clubs" are to be charged only five-farthings each member, so that for eighty members of a club, Practitioners would receive 8s. 4d. per week as "*the value of their time and skill*," and to bring the remuneration up to the wages of a bricklayer (30s. per week), the profit on the medicines "supplied" should be 1*l.* 1s. 8d. per week; or in other words, the "drug payment," or "the degrading system of drug details" to be referred to in the ledger by any dissatisfied patient, would be as 2·6 to 1 for "time and skill."

The table of charges for medicines includes mixtures, draughts, drops, pills, powders, blisters, gargles and lotions. The mixtures are charged for according to quantity, as twelve, eight, and four ounces; and pills according to number, as twelve, six, and two.

Now, if the medicines supplied should be of any value, an intelligent patient in class I., instead of paying 1s. 6d. to 2s. for four ounces of a mixture, would buy twelve ounces for 3s. 6d. to 4s. 6d., and save 1s. 6d.; but the saving to the patient would be larger in the case of pills, for instead of paying 6d. to 1s. for two pills, he could have twelve for 1s. 6d. The trading principle in this case reminds one of the reduction made by quacks to patients who purchase nervine tonics in large quantity. Gargles and lotions seem to be of little value, as they "may be charged somewhat lower than medicines proper." Ointments and enemas are omitted in the tariff: the former would, of course, be charged for according to weight, irrespective of the constituents, and the drugging per anum might be computed by measure, or by inches according to the length of the tube employed.

The tariff, on which I have only partly commented, is a very painful subject. I have kept close to the text, and the words in italics are copied from the document published in the *British Medical Journal*, December 3, 1870. I do not question the right of any Practitioner to set such value on his Professional services as he may think fit, but I do protest against all those registered Practitioners who sanction such ethics as are promulgated in the tariff, and who at the same time demand to be invested with power to elect representatives on the General Medical Council, with the avowed object of compelling the Council to establish "a *compulsory* scale of charges," which in some particulars resembles the by-laws of a trades' union, and the regulations for hackney-carriages.

I am, &c.

A Member of the British Medical Association.

"THE YOUNG GENTLEMEN WHO 'WIELD THE THUNDER.'"

[To the Editor of the Medical Times and Gazette.]

Sir,—It is to be hoped that the "young gentlemen who now 'wield the thunder'" will profit by the advice given to them by one of your contributors in your issue of the 3rd inst. There has been for some time past in the Profession a conviction that if personal threats and abuse are permitted against men in public positions, in order to influence their conduct, that we must all suffer. Good men, rather than encounter such attacks, will not present themselves for office, whilst noisy and indifferent persons will place themselves foremost. It is desirable to "grasp the nettle," and determine how far it is injurious. The "young gentlemen" did not succeed in ousting Mr. Solly, notwithstanding the abuse they pointed against him. Professor Erasmus Wilson came in at the head of the poll notwithstanding the persistent malignity with which he was attacked. The assault on the College, concocted by a clique, was sustained by all the available forces of the besiegers—gentlemen from all parts of the country; recruits from every part of London—the entire "staff" mustered strong. Mark the result. They were beaten, ignominiously beaten, and retired to their quarters dispirited and crestfallen! What is the moral to be derived from these circumstances? Clearly, to show a bold front on all occasions. No one is more easily cowed than the braggart if you show fight. Show fear, and he is as "valiant" as Falstaff.

I am, &c.

A Fellow of the College of Surgeons.

London, December 13.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, December 6, 1870.

Richard Quain, M.D., President, in the Chair.

Dr. Liebreich, by means of his fixed ophthalmoscope, exhibited some interesting specimens of Eyes, normal and abnormal. In one, there was a persistent hyaloid artery and vein, running from the optic disc straight into the vitreous for a little way, the vein ending in the papillary excavation. Another was a case of posterior staphyloma, the patient suffering from short sight, owing to lengthening of the antero-posterior axis of the eye, and marked by choroidal atrophy round the disc. Choroiditis disseminata presented, in certain parts, the appearance of light spots, owing to atrophy and removal of pigment from the epithelium; in others, black spots, the cells having undergone other changes. This condition was not to be confounded with retinitis pigmentosa. In this, the black spots are in the retina, as indicated by their relation to the vessels. These and other conditions were of importance to the Physician in connexion with disease of the brain, spinal cord, and kidneys. In optic neuritis the contour of the disc became altered, or disappeared entirely; the substance of the papilla was opaque and thickened so as to project against the swollen and tortuous veins, presenting a notable difference from optic atrophy or glaucomatous excavation, of which, also, examples were shown.

Dr. McCormac exhibited certain specimens of Bones from the wounded at Sedan. They showed the difference between these injuries and those encountered in private practice. Thirteen specimens were exhibited—some of great interest. They gave rise to the conclusion that these bone injuries are more severe than those encountered in civil practice. They were, besides, compound, and the wounds of the soft parts were contused. The effects of the chassepôt and the Prussian bullets were different—the Prussian crushes and roughly pulverises the bone it strikes, but the splitting is not extensive; the chassepôt bullet, being lighter, of a different shape, and having a higher velocity, comminutes excessively, and splits the bone extensively. The Bavarian bullet acts something like the chassepôt. Gunshot injuries might present an appearance of

little amiss on the surface, whilst there was much internal damage, especially if the bone was struck. To make certain of the exact condition of parts, it was necessary to examine a wound with the finger as soon after its infliction as possible. This would apply to wounds of the limbs only. Conservative Surgery was not adapted for military practice. By adopting radical measures at once more lives would be saved than by trying to save joints and limbs.

Mr. Trotter was glad to hear such an opinion as to conservative Surgery in war time. He had never seen it do any good.

Mr. Hulke said each campaign must be judged by itself. In the Crimea, conservative Surgery was practically impossible, owing to the condition of the men, reduced by scurvy and exposure. Here, and in 1866, the men were better fed, and the wounded seemed to do better in the latter campaign than in this. It was clear conservative Surgery could not be practised to the same extent in time of war as at home.

Mr. Foster exhibited an enormous Mammary Tumour, first noticed thirty-six years ago, but which remained stationary till the menses ceased. It then continued to grow till it was removed, when it weighed ten pounds. There was no family history of cancer, and the specimen had not been examined.

Mr. Arnott exhibited some specimens of Secondary Epithelioma of the heart and lungs. Only six were recorded in the *Transactions*, and he now had to refer to three more. The first patient had epithelioma of the clitoris, and had been twelve months ill when she died with secondary deposits in the inguinal glands, lungs, and heart. In a second the face was affected, especially the glands under the chin. Here the lungs were affected also. In the third case the face, glands, and sternum were first implicated.

Dr. Moxon asked what were the relations of the cancer to the face and mucous membranes of the mouth, and what the chances were of cancer germs reaching the lung by the air-passages.

Mr. Arnott thought the lung was mostly infected from the face or mouth, whence the cells might descend, but that could not be so from the clitoris.

Mr. Trotter exhibited a specimen of Malignant Disease of the lung and kidney, from the body of a soldier, aged 30, who had suffered from hæmoptysis and symptoms of a lung broken down into a cavity occupying the right apex. He died, and a huge cavity was found, not occupied by pus, but by matter like encephaloid. Similar material was found in the left lung and kidney.

Mr. Heath brought forward a specimen of Fibroid and Cystic Growth from the axilla of a woman, aged 49. The tumour had existed twelve years, at least, and seemed to affect the breast, but, in reality, that was pushed on one side. It was a question whether the growth was fixed to the scapula or no, as that bone moved with it; but it turned out to be bound down by the serratus magnus only, and pushing aside the axillary vessels. The patient had done well.

Mr. Heath also showed a specimen of Procidentia Uteri, complicated with ovarian cyst. The uterus projected beyond the vulva, and the os was ulcerated. The bladder was drawn down till a sound on entering it passed downwards. The uterus could hardly be returned; still, this was managed, and the ordinary operation performed; but, though she recovered from the immediate effects of the operation, she lost strength, sank, and died. An ovarian cyst was found, and its existence explained why the uterus could never be kept up. The kidneys were diseased. Chronic pyelitis caused her death.

A third specimen, exhibited by Mr. Heath, was a Lipoma of the Nose in a man, aged 62, who had suffered from the affection for twelve years. His appearance was greatly improved by its removal.

Mr. Squire showed an Enlarged Spleen from the body of a gentleman, aged 40. He had long complained of pain and weight in his side. After a railway accident the origin of this was disputed; he found the spleen to be the cause. There was no other glandular enlargement, but there was leukæmia. He suffered from febrile attacks at intervals, and had swollen feet occasionally. By-and-bye, ascites came on, and he died exhausted. There were yellow clots in the heart. The spleen weighed 12¾ lbs., and was between seventeen and eighteen inches long from side to side. The liver was slightly enlarged.

Mr. Spencer Wells inquired whether it could have been removed without danger to life from bleeding.

Mr. Squire thought it might have been so at first without any difficulty, the arteries not being enlarged and the parts round about healthy.

Dr. Tilbury Fox exhibited the Ears of some Negroes. The lobe became enlarged after piercing. The cause was apparently keloid.

CLINICAL SOCIETY OF LONDON.

Friday, November 25.

Mr. Henry Lee, Vice-President, in the Chair.

Mr. Brudenell Carter read particulars of a case of presumed Injury to the Ciliary Nerves from a Blow, and exhibited the patient, a little boy, seven years of age, who had received a blow from a bat upon the right eye eight months previously. Enormous dilatation of the pupil followed the injury. The ophthalmoscope showed that the choroidal pigment around the optic nerve entrance (which formed a well-defined ring in the uninjured eye) had been scattered by the shock, and that an annulus of choroid round the nerve, and reaching nearly to the yellow spot, was undergoing atrophic changes. The inference was that the coats of the eyeball in this region had been strained and injured by *contre-coup*, and that the ciliary nerves had participated in the injury at their entrance into the globe. The dilatation of the pupil was greater than paralysis of the filaments from the third nerve would explain, and seemed to suggest active irritation of the sympathetic filaments of the dilatator. There was no impairment of vision, and no paralysis of the external ocular muscles.

Mr. Callender, for Dr. Martin Payne, read a paper on Tertiary Syphilis.

Mr. Durham related a remarkable case of Spontaneous Fracture of the Femur. When first seen by him in March, 1867, the patient, a professional man, aged 44, was seated, half-dressed, in an easy-chair. He thought himself capable of walking about, and was surprised to find this impossible. The right femur was found broken at the junction of the upper and middle thirds, the limb being shortened by three inches. Three months previously, the patient had fallen downstairs and hurt his thigh; but he soon felt nothing of the injury, which he thought a trifling one. Seven weeks later, however, he began to have aching pain in the thigh, which was considered and treated as neuralgic; and when this had lasted three weeks, he felt, on going to bed one night, a sudden increase in the pain, and fell on to his bed in great agony. Next morning he could not move the thigh, which was much swollen. He was quite unconscious of having subjected the limb to any sudden strain. After a few days the swelling and pain diminished, and he got up, but could not walk about; and it was about ten days after that Mr. Durham, visiting him for the first time, in consultation, found his thigh broken. Under treatment, the bone united; in the course of four months the patient could move about; two months later he returned to professional work. He remains quite well. Mr. Durham thought it probable that at the time of the fall some injury of the bone had taken place, which had been followed by gradual interstitial degeneration and absorption of bony tissue, instead of healthy repair, leading to spontaneous fracture of the bone. The patient had, it seemed, been subjected to great worry and wear and tear of brain, and Mr. Durham suggested, as a topic for discussion, the relation which may exist between over-work or excitement of brain and defective nutrition of bone.

Mr. Heath mentioned the case of a Medical gentleman, aged 60, who, in turning in bed, broke his thigh. He recovered, and himself narrated his case to the Royal Medical and Chirurgical Society. He asked why iodide of potassium was given if the case were not one of syphilis. Surely phosphates would have been better. Another gentleman referred to the case of a boy, aged 14, who broke his humerus in firing a squib. He was quite well in six weeks.

Mr. Callender had seen several examples of spontaneous fracture of long bones. In most instances the patient had been cognisant of the injury. A case occurred some years ago to a man who was roughing it in Australia, but returned to England for advice. It was supposed to be disease of the knee-joint, and amputation became necessary. It was found that the end of the femur was expanded and atrophied, and there was a fracture just above the epiphysis. Nevertheless, he had been able to get about.

Mr. Carter narrated the case of a corpulent woman, who slipped, and apparently sustained no injury. Six days afterwards, on bending, she felt something give way, and she could no longer walk about. She could produce crepitus by muscular action, though it could not be produced otherwise. She tried to get about on crutches, but fell again, and the bone protruded above the knee. She died, and it was found that a fracture extended the whole length of the bones, from the great trochanter to just above the knee, where the portion had protruded and been broken off.

Mr. Gascoyen had seen a similar case. A woman, aged 55, fell, but walked home. Going upstairs, she felt something give way, and she fell again. There was fracture of the thigh, which did not unite, and she died. The bone was softened—fatty, not in the condition of mollities.

Mr. Hulke gave the case of a young woman of a phthisical family—herself very feeble—who was being carried from her bed to a couch; a snap was heard, and the thigh was broken. Sometime after, the other went in like manner. It was put up in a long splint, and did well; the former, which was put in short splints, did not.

Mr. Croft noticed the fact of there being impaired nerve-force and yet reparation of bone.

Mr. Callender said there was a case now in St. Bartholomew's where the patient, though suffering from paralysis, recovered after a fracture in the ordinary time.

Mr. Durham noted that in the cases mentioned there was some accident to which to refer the injury; here, there was only mental worry.

Mr. Lee was not aware of any case of fracture from syphilis alone; in that disease the bones really got thicker.

Dr. Wiltshire, after referring to five cases which he thought presented the characteristic symptoms of Paroxysmal Hæmaturia, observed that the yellowish discoloration of the skin was the most constant and important symptom, and he advanced the hypothesis that it was due (like the dark urine) to disintegration of the red corpuscles of the blood, the disintegrating agent being a volatile organic acid, probably a fatty acid, which was thrown back into the system by chilling of the skin in persons predisposed to the affection. He supported this view by a reference to the effect of venoms on the blood, and especially when the virulence of these poisons was intensified by the addition of volatile organic acid. He also cited the discolorations of the skin which are seen in pyæmia, Addison's disease, chlorosis, certain forms of so-called jaundice, as icterus neonatorum, sudden suppression of normal discharges, as the sweat, menses, etc., and referred to the greenish hue of unhealthy women at the catamenial period, as evidence that chromatic changes might occur in the skin as the result of auto-genetic poisoning. He argued that the elimination of the colouring matter of the blood by the kidney was not an essential symptom. He thought that, clinically, the scope of the disease should be widened, the pathological process comprehending, he believed, a considerable number of affections not hitherto classed with it. Believing the disease to consist essentially of a process of diffused hæmatolysis, and arguing that, as a consequence, the names hitherto employed—namely, intermittent or paroxysmal hæmaturia, hæmatinuria, and cruenturia—only expressed a symptom, and that neither a constant or necessary one. Dr. Wiltshire, although averse to the invention of new names, proposed "paroxysmal hæmatolysis" as more fitting and expressive.

Mr. H. Lee had only seen this form of hæmaturia where the blood had been for a time stagnant, as after ligaturing a vessel.

Dr. Greenhow said that here were mentioned five cases, so-called, of intermittent hæmaturia, and in not one instance was there an account of the condition of the urine. Further, he had notes of eleven cases of true intermittent hæmaturia; in only three was there any discoloration of the skin, and it was only notable in one.

Dr. Glover said he was seldom present at these meetings, but when he came he did not expect to hear such a paper.

Dr. Wiltshire's own cases appeared to be either jaundice or lithiasis.

Dr. Dickinson thought the disease was connected with ague; it could be permanently cured by quinine.

Mr. Heath asked if the rule of forwarding papers to the Secretary had been complied with. It should certainly be attended to.

OBITUARY.

HUGH GRAINGER STEWART.

We regret to record the death, at the early age of 35, of Dr. H. G. Stewart, the able and very efficient Superintendent of the Newcastle Borough Asylum, which occurred on November 26, from cerebral rheumatism. Dr. Stewart had had considerable experience in his department, having been for several years assistant in the Crichton Institution, Dumfries, before his appointment, in 1866, to the office he held at his death. He was an admirable superintendent, and was organising and arranging a new asylum with great skill. A large number of attendants had followed him from Dumfries, and he was much esteemed and beloved among the Profession and general public who came in contact with him. He was the author of several able papers, among which we would specially refer to those on "The Hereditary Transmission of Insanity," published some years ago in the *Journal of Mental Science*, in which he analysed 900 cases recorded on the books of the Crichton Institution, and to another paper "On Syphilitic Insanity," which was read at the meeting of the British Medical Association held in Newcastle. His loss is deeply felt, alike by patients and friends.

JONATHAN TOOGOOD, L.R.C.P., F.R.C.S.

Mr. Toogood was a well-known Surgeon in Somersetshire and the neighbouring counties. He was in practice at Bridgwater for upwards of half a century; thirty-three years of which he was Surgeon to the Bridgwater Infirmary, of which he was the founder. He was the author of "Hints to Mothers" and "Reminiscences of a Medical Life"—the former a useful little manual, the latter a gossiping, discursive book on many and various subjects, the production of a man of large experience and good common sense, but of moderate acquirements. Mr. Toogood was much respected by his townsmen. He retired from practice some years since, and died at Torquay on the 7th inst., at the age of 87.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, December 8, 1870:—

Broom, Henry John, Pembrey, Carmarthenshire.
Fryer, John, Batley Carr, near Dewsbury.

As Assistant in Compounding and Dispensing Medicines:—

Overton, Charles Arthur, Horncastle, Lincolnshire.

The following gentlemen also on the same day passed their First Professional Examination:—

Deane, Robert Edmund, Leeds Infirmary.
Frean, Richard, Middlesex Hospital.

APPOINTMENT.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Roe, George Hamilton, M.D., etc.—One of the Consulting Physicians to the Westminster Hospital.

BIRTHS.

Alderson.—On December 12, at Avenue-terrace, Bridge-avenue, Hammersmith, the wife of F. H. Alderson, M.R.C.S. Eng., of a son.

Burn.—On December 6, the wife of W. Barnett Burn, M.R.C.S. Eng., B.Sc., of a daughter.

Grosvenor.—On December 12, at 121, Ladbroke-grove, Kensington-park, London, the wife of George Fox Grosvenor, M.D., of a daughter.

Hiron.—On December 9, at Studley, the wife of J. H. Hiron, Surgeon, of a daughter.

Marston.—On December 1, the widow of the late Dr. Marston, of Reading, of a daughter, which lived only two days.

Martin.—At 6, Albion-villas, Hythe, Kent, the wife of Henry A. Martin, M.D., Staff Assistant-Surgeon, of a daughter.

MARRIAGES.

Anderson—Thoms.—On December 8, at Crescent House, Dundee, John Anderson, M.D., Curator of the Indian Museum, and Professor of Comparative Anatomy, Medical College, Calcutta, to Grace Scott, only daughter of Patrick Hunter Thoms, Esq., of Aberlemno, Forfarshire.

Grabham—Leatham.—On December 7, at All Saints' Church, Pontefract, Charles Grabham, M.B., Pontefract, fourth son of the late John Grabham, M.D., of Rochford, Essex, to Eliza Jane, youngest daughter of the late Flintoff Leatham, Esq., of Pontefract.

Louis—Grace.—On December 7, at St. Michael's, Stockwell, Alfred Louis, Esq., of Manchester, to Cora, eldest daughter of John F. Grace, M.D., of Stockwell-park-road, Brixton, late of Geelong, Victoria, Australia.

Lynch—Oliver.—On December 10, at St. Philip's, Kensington, Jordan Roche Lynch, L.R.C.P. Lond., only son of the late Jordan Roche Lynch, M.D., of the City, to Marian, eldest daughter of the late James Oliver, Esq., of Ladbroke-square and the Inner Temple.

DEATHS.

Anderson, Margaret Skelton, widow of John Ford Anderson, M.D., at Peterhead, Aberdeenshire, on December 9, aged 86.

Bacon, Edward Charles, at Mill Mead Cottage, Guildford, on December 7, aged 81.

Baines, Mary, widow of the late Philip Otter Egerton Baines, Surgeon, at 4, Belgrave-terrace, Stockwell, on December 9, aged 53.

Down, Edward Philip, late of the Bombay Civil Service, youngest son of the late Sommers Down, M.D., of Ilfracombe, at Barrow Lodge, Ilfracombe, on December 11, aged 44.

FARRANTS, ROBERT JAMES, F.R.C.S., at 241, City-road, on December 10, after a short illness, aged 60.

JEAFFRESON, JOHN FURRANCE, F.R.C.S., at 13, Canonbury-lane, after more than twelve years' illness, on December 13, in his 62nd year.

LAWLER, MARTIN SHINE, M.D., at Killarney, after a tedious illness, borne with Christian fortitude, on December 8, aged 57.

LAWRANCE, RICHARD MOORE, M.D., M.R.C.P., after a long illness, at 2, South-street, Thurloe-square, late of 60, Great Cumberland-place, W., on December 14, aged 48.

MEIK, HENRIETTA, widow of James Meik, M.D., H.E.I. Co.'s Service, at 2, Adelaide-place, Bath, on November 29, aged 84.

MORRIS, PHILBRICK, Surgeon, at Colchester, suddenly, on December 7.

NEVILL, MARY, the beloved wife of Wm. Nevill, M.B., and daughter of the Very Rev. John William Keating, D.D., Dean of St. Patrick's, Dublin.

READ, MARY MARGARET, the beloved wife of Dr. Reginald Read, at 1, Guildford-place, Russell-square, on December 11, in her 53rd year.

TOOGOOD, JONATHAN, M.D., at Torquay, on December 7, in his 87th year.

WALKER, GEORGE, M.D., second son of the the late Thomas Dixon Walker, Esq., of Hurworth-upon-Tees, Darlington, at Sydney, New South Wales, on September 18, aged 39.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ALDERBURY UNION.—Medical Officer for the district of this Union. Candidates must be duly qualified and registered. Applications and testimonials to T. Jesse, Esq., Clerk to the Guardians, Bedwinsbeet, Salisbury, on or before January 5, 1871. Election on the 6th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before December 28.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Acting Physician; must be a Graduate in Medicine of a British University recognised by the Council of Education and Registration, or F. or M.R.C.P. Lond. Applications and testimonials to the Medical Committee on or before December 23.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Physician; must have a degree from one of the universities recognised by the General Medical Council, and be a Fellow or Member of the Royal College of Physicians of London. The office of Assistant-Surgeon is also vacant. Candidates must be Fellows of the Royal College of Surgeons of England, not practising pharmacy or midwifery. Applications and testimonials to Henry Wooleott, Esq., Secretary, on or before January 10, 1871.

COUNTY DOWN INFIRMARY AND FEVER HOSPITAL.—Resident Registrar and Surgeon's Assistant; must be duly qualified and registered. Applications and testimonials to James Simms, Esq., Registrar, on or before January 10, 1871.

FEVER HOSPITAL AND HOUSE OF RECOVERY, CORK-STREET.—Temporary Physician. Applications and testimonials to J. F. Eustace, Esq., Registrar, on or before January 4.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician; must be M.R.C.P. Lond. Applications and testimonials to the Secretary.

KILLALA UNION.—BALLYCASTLE DISPENSARY DISTRICT.—Medical Officer wanted for the above district. Candidates must be duly qualified and registered. Applications and testimonials to D. Omsby, Esq., Honorary Secretary, on or before December 22.

LEAMINGTON PROVIDENT DISSENSARY.—Dispenser. Applications, with full particulars, to the Honorary Secretary, on or before the 17th inst.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before December 27.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—House-Surgeon; must be duly qualified. Applications and testimonials to Mr. R. F. Easterley, Secretary, on or before January 2 next. The duties will commence on February 7.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.—House-Surgeon, Apothecary, and Secretary; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Chairman of the Committee of Management on or before December 31.

WEST KENT GENERAL HOSPITAL, MAIDSTONE.—Resident House-Surgeon; must have some legally recognised qualification, and be registered. Applications and testimonials to Mr. Holmes, 16, Knightrider-street, Maidstone, on or before January 3, 1871.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Auckland Union.—The Crooke District is vacant; area, 10,062; population, 10,607; salary, £36 per annum.

Pwllheli Union.—Mr. Thomas Williams has resigned the Aberdaron District; area, 17,800; population, 3800; salary, £70 per annum.

APPOINTMENTS.

Barton-upon-Irwell Union.—Robert Whipp, M.R.C.S. Eng., L.R.C.P. Edin., to the Cadishead District.

Chesterfield Union.—Thomas W. Popplewell, M.R.C.S. Eng., L.S.A., to the Bolsover District.

Lunesdale Union.—James B. Nottage, M.R.C.S. Eng., L.S.A., to the Fourth District and the Workhouse.

Manchester Township.—Joseph Westmorland, M.R.C.S. Eng., L.S.A., to the Cathedral District.

Mansfield Union.—John W. Curran, L.R.C.S. Ire., L.K. and Q. Coll. Phys. Ire., to the Second District.

Thame Union.—Charles F. Knight, M.R.C.S. Eng., L.S.A., to the Brill District.

Wisbeach Union.—Walter Berry, M.R.C.S. Eng., L.S.A., to the Twelfth District.

Worksop Union.—James Coutts, M.R.C.S. Eng., M.D. Univ. K. Coll. Aber., to the Cuckney District.

UNIVERSITY OF DUBLIN.—At the winter commencement, held in the Examination Hall of Trinity College, on Wednesday, the 14th inst., the following degrees in Medicine and Surgery were conferred by the Rev. the Vice-Provost of Trinity College:—*Baccalaurei in Medicinâ.*—Carolus Dunscombe Allen; Gulielmus Thomas Briscoe; Reuben Joshua Harvey; Gulielmus Hugo Lambert; Henricus Marcus Levinge; Alfredus Henricus Martin; Ricardus Georgius O'Flaherty; Edvardus Albertus Rawson; Hatton Smyth; Gulielmus Henricus White. *Magistri in Chirurgiâ.*—Gulielmus Thomas Briscoe; Reuben Joshua Harvey; Edvardus Albertus Rawson; Hatton Smyth; Gulielmus Henricus White. *Doctores in Medicinâ.*—Robertus Thomas Cooper; Gulielmus Hugo Lambert; Gualterus Georgius Smith; Antonius Traill, F.T.C.D.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—From a report of the proceedings of the last meeting of the Council of this institution, it appears that the following important recommendation of the Court of Examiners was moved and seconded:—"In the case of students natives of India, that the Matriculation Examinations of the Universities of Calcutta, Madras, and Bombay be recognised as equivalent to the Preliminary Examination for the Fellowship of the College when the certificates of having passed the same shall, in addition to the several compulsory subjects thereof, contain evidence that the candidates have passed in Latin, French, or German, and, in lieu of Greek, in one of the Eastern languages included in the lists of the respective Universities." Whereupon it was moved, as an amendment, by Mr. Quain, and seconded by Mr. Curling—"That the foregoing resolution, with the omission of the words, 'French or German,' be adopted;" and the votes of the Council having been taken on the amendment, a majority was in favour thereof. Another recommendation was also adopted—viz., "That candidates for the Preliminary Examination for the Fellowship be in future allowed to take up, at their option, either French or German as one of the subjects of the examination." Another important recommendation in relation to the Sydney Infirmary was also adopted—viz., "That Dr. Bennett be informed, in reply to the memorial from himself and other Fellows and Members of the College, that after a further careful examination of the two published reports, for the consecutive years 1868 and 1869, relating to the Sydney Infirmary, the one forwarded by the secretaries of the institution and the other by the memorialists, the Council find that the opportunities for practical Medical and Surgical instruction afforded by the Infirmary are in conformity with the regulations of the College, both with respect to the number of patients and the nature of the Medical and Surgical cases under treatment; that the Council, therefore, rescind their resolution in reference to certificates of attendance on the practice of the Infirmary; and that with regard to the curriculum of Professional education proposed to be established in connexion with the University of Sydney, the question of its recognition will not arise until the contemplated arrangements shall have been fully and satisfactorily carried out." A letter was read from Mr. Robert M. Craven, of Hull, requesting that, under the circumstances stated by him, he might be elected an Honorary Fellow of the College, whereupon he was referred to clauses 7, 8, and 9, section xxii., of the by-laws, relating to the election to the Fellowship of Members of twenty years' standing. A letter was read from Mr. Simon, resigning, in consequence of his not being able to attend evening meetings at this time of the year, his seat as a member of the Committee on the Conjoint Board. The President submitted to the consideration of the Council a proposal to form, at a reasonable expense, a collection of Surgical instruments and appliances, both ancient and modern, to be added to the museum of the College, whereupon it was resolved—"That the proposal of the President be approved, and that it be referred to the Museum Committee to consider the best mode of carrying the same into effect." A letter was read from Mr. W. K. Sullivan, Secretary to the Royal Irish Academy, enclosing a copy of a memorial to the Government, in reference to the loss which would be sustained should the works of science and art in Paris be destroyed, and soliciting the co-operation of this College in supporting its object. The communication was referred to the President and Vice-Presidents to reply thereto. The following Members of the College were then elected to the Fellowship—viz., Messrs. William Penny Brookes, of Much Wenlock, diploma of Membership dated May 20, 1831; Henry Keate, Shrewsbury, June 20, 1836, and Robert Boyle Travers, Rostellan, Co. Cork, May 21, 1841.

MEDICAL STUDENTS.—The return of the number of anatomical students pursuing their studies in the provinces has only just been completed by the addition of the Cambridge University School, where during the present session there are 21 students, making a total of 378 pursuing their anatomical studies at the eight recognised provincial schools, and making, with those in this metropolis, the large number of 1702, or an increase of 141 over the number of last year.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION, IRELAND.—Dr. Speedy, 28, North Frederick-street, Dublin, has been appointed General Treasurer to the Poor-law Medical Officers' Association, Ireland. Numerous communications having been received to the effect that the annual subscription, 2s. 6d., is too small, it is desirable to explain that this sum is to be devoted merely to the general printing, postage, and stationery of the Association. The members connected with each union and county branch will make their own arrangement with regard to their particular union and county expenditure, thus preventing centralisation, and rendering each branch as independent as possible. The following are the amended regulations of the Poor-law Medical Officers' Association, Ireland:—

1. That the Medical officer of each union shall elect from amongst their number a union representative.
2. That the union representatives of each county shall elect from amongst their number a county representative, who shall be in communication with the Parliamentary representatives of that county.
3. That the county representatives shall invite every member of the Medical Profession in each county to join this Association, their interests (as far as they go) being identical with those of the Poor-law Medical Officers.
4. That in any union or county in which it may be deemed advisable to do so, any member of this Association, although not being a Poor-law Medical Officer, may be elected by ballot to be either the union or county representative.
5. That the thirty-two county representatives shall form the council of the Association.
6. That a meeting shall be held quarterly, and alternately in each of the provinces of Ireland.
7. That an annual meeting shall be held, when the general president, treasurer, secretary for the year shall be appointed.
8. That the annual subscription for each member shall be 2s. 6d. (There being 1000 Poor-law Medical Officers in Ireland, this would produce an income of 125*l.* per annum, which would cover printing, postage, and stationery.)

These regulations have been forwarded to every Poor-law Medical Officer in Ireland. The answers received are very numerous, fully approving of the scheme, and will be laid before the Association at the first general meeting. It would be be very undesirable indeed that this Association should be considered to be antagonistic to any of the existing Medical societies, many of which have been of great benefit to the Profession, but the Poor-law Medical Officers of Ireland believe that their number and importance is such that they require an organisation for the advancement of their special interests, and what these are they conceive that they themselves are the best judges.

MIXED MEDICAL CLASSES.—The following memorial (which was signed by sixty-six students), and the reply thereto by the President of the Royal College of Surgeons, refer to the mixed Medical classes:—

"November 23, 1870.

"*To the President of the Royal College of Surgeons, Edinburgh.*

"Sir,—We, the undersigned students, attending classes at the Royal College of Surgeons, beg respectfully to draw your attention to the following grievances, and request the exercise of your influence in procuring their removal:—

"Firstly—That several of the lecturers at the Royal College of Surgeons have admitted women into their classes without the least endeavour to ascertain the opinion of the male students, and, as now appears, directly contrary to their desire.

"Secondly—That the presence of women at the classes of anatomy and Surgery, and in the dissecting-room of the College, gives rise to various feelings which tend to distract the attention of the students from important subjects of study.

"Thirdly—That, as the institution of mixed classes had not been determined upon when many of the present students attached themselves to this School of Medicine, we are of opinion that those gentlemen who commenced their studies under the old system have suffered a certain breach of contract, inasmuch as a new element has been introduced, which would have demanded consideration in their choice of classes.

"Fourthly—That the presence of women in the classes of the Royal College of Surgeons has produced and cherished a feeling of discord, which threatens to lead to very bad consequences.

"We humbly request your attention to the foregoing statements, and are anxious that you should use this petition in such a manner as may be best suited to remove our grievances, and restore the uniform good feeling between the teachers and students at the Royal College of Surgeons which, previous to the innovation to which this petition refers, was so prominently manifest."

"Royal College of Surgeons,
"Edinburgh, December 12, 1870.

"*To the Students who have addressed a Petition to the President of the Royal College of Surgeons regarding Mixed Classes.*

"Gentlemen,—I have brought your petition under the notice of the Royal of Surgeons, and have been instructed to reply that the College is not a teaching body; and though it recognises, and is interested in the success of, all the extra academical classes, it has no direct control over them, and is not responsible for the decisions of the lecturers.

"The College, therefore, with every disposition at all times to promote the interests of the students of the Medical School of Edinburgh, cannot interfere with the teachers who have adopted mixed classes; it can only indicate that the proper quarter to which the petitioners should apply is the Association of Lecturers, who occupy the premises at Surgeons' Hall, and are merely tenants of the College.

"I am, your obedient servant,
"JAMES D. GILLESPIE, M.D., President R.C.S.E."

—*Scotsman*, December 13.

MEDICO-CHIRURGICAL SOCIETY.—The following gentlemen have been elected office-bearers for the ensuing year:—*President:* Professor Bennett. *Vice-Presidents:* Dr. Thomas Keith, Dr. Matthews Duncan, Professor Lister. *Councillors:* Dr. Thomas R. Fraser, Dr. Brakenridge, Dr. A. G. Miller, Dr. Angus Macdonald, Dr. James Fraser, Dr. John Chiene, Dr. C. H. Groves, and Dr. Wyllie. *Treasurer:* Dr. George W. Balfour. *Secretaries:* Dr. Argyle Robertson, 40, Queen-street, and Dr. Claud Muirhead, 7, Heriot-row.

DR. BISCHOF.—The well-known German chemist and geologist, Dr. Charles Gustavus Bischof, died at Bonn on November 30. He was born near Nuremberg, in Bavaria, on January 18, 1792, and received his education in the University of Erlangen, where he applied himself at first to the study of mathematics and astronomy, though he subsequently abandoned this branch of science, and, turning his attention to chemistry, became one of the most distinguished pupils of Professor Hildebrandt. In 1819 he was appointed Professor of Chemistry and Technology in the University of Bonn. An enthusiastic geologist, Dr. Bischof sought to discover in molecular action certain geological phenomena.

THE monthly return of the births, deaths, and marriages registered in the eight principal towns of Scotland for November, 1870, says that during the month of November, 1870, there were registered in the eight principal towns of Scotland the births of 3184 children, of whom 1604 were males and 1580 females. Of these, 2892 were legitimate and 292 illegitimate, being in the proportion of one illegitimate in every 10·9 births, or 9·1 per cent. of the whole as illegitimate. In Paisley 2·4 per cent. of the births were illegitimate, in Greenock 3·8, in Leith 7·2, in Edinburgh 8·6, in Glasgow 8·9, in Perth 11·3, in Dundee 12·4, and in Aberdeen 16·4 per cent. 945 marriages were registered in the eight towns during the month, which is the greatest number recorded during any November since 1855. The deaths of 2254 persons were recorded in the eight towns during November, of whom 1148 were males and 1106 females—204 under the average for the corresponding month of the previous ten years. During November the annual rate of mortality was 21 per 1000 persons in Leith, 22 in Perth, 24 in Aberdeen, 27 in Edinburgh and Paisley, 28 in Dundee, and 29 in Glasgow and Greenock. Of the 2254 deaths registered, 912, or 40 per cent., were of persons under 5 years of age. In Edinburgh and in Perth, 34 per cent. of the persons who died were under 5 years of age; in Aberdeen 36, in Dundee 41, in Glasgow and in Leith 42, in Greenock 44, and in Paisley 46 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 526 persons, constituting 23 per cent. of the mortality. This rate was exceeded in Paisley and Greenock from the fatality of measles and scarlatina. In Perth the mortality from zymotic diseases was very low—only 8 per cent. of the deaths. Fever was the most fatal of the epidemics, causing 129 deaths, or 5·7 per cent. The relapsing form of

fever is spreading extensively in Glasgow, and is also manifesting itself in Paisley and Greenock. Scarlatina caused 115 deaths, or 5·1 per cent. of the mortality, and was most fatal in Aberdeen, where 9·9 per cent. of the mortality was from this disease. Eight deaths were tabulated under small-pox, of which two were attributed to "erysipelas after vaccination," and one to "effects of vaccination." There had passed the 90th year of life two males, the eldest of whom was a saddler, aged 101 years; and eleven females, the eldest of whom was the widow of a writer to the *Signet*, aged 100 years.

West Kent Medico-Chirurgical Society.—On Friday, December 9, 1870, Dr. Clapton, President, in the chair, Dr. J. S. Bristowe read a paper entitled "Cases illustrative of some of the Different Forms of Impairment or Loss of the Power of Speech, with Remarks." A discussion followed, in which Dr. Lockhart, Dr. Purvis, Dr. Gooding, Mr. Mitchell, Mr. Hope, Dr. Clapton, and Dr. Thorowgood took part.

Surgical Society of Ireland.—The first meeting of this Society for the present session was held on Friday evening, the 9th inst. A large assemblage of members and visitors were present. The chair was taken by Dr. Albert Walsh, President of the Society, who gave an introductory address. Interesting communications were made—by Mr. Kelly on "Regeneration of Bone after Fracture"; by Dr. Wharton, Vice-President, on "Luxation forwards of the First Phalanges"; by Mr. Croly, on "Mulberry Calculns"; and by Mr. Morgan, on "The Unity of the Syphilitic Poison."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

We have received a reprint of our article on "Sexualism in Edinburgh," together with an accompanying address by "M.D. Edin. and L.R.C.S.E." They are intended for "private circulation." It is satisfactory to find that attention is being directed to the true issues raised by the conduct of those who study and teach in mixed classes at Edinburgh.

Inquirer.—We believe so. Both institutions grant diplomas.

Mr. E. H. Lloyd, Kamptee, Central India.—Your letter, with enclosure, has arrived safely.

Albinus.—The rumour has reached us that Mr. Charles Hawkins, the Government Inspector of Anatomical Schools in the Metropolis, is about to resign that appointment.

A Candidate.—The examination will take place at the Whittington Club on the 20th inst., and *not* at the College of Surgeons. All the cards have been sent out.

E. B. C. writes to ask us to recommend him a tutor to prepare his son leaving school this Christmas, for the chemical and physical part of the Matriculation Examination at the University of London. We may refer E. B. C. and others so circumstanced to Mr. A. J. Wanklyn, Victoria-street, Westminster.

F.—We often wonder that a night call is not more often made the means of robbery. A house is disturbed by a most portentous bell-ringing in the dead of night; the Practitioner, half sleepy, goes out with the messenger; and, perhaps, he owes his safety to the fact that he has nothing very valuable in his pockets. The latch-key, especially those known as "Bramah's," are a simple delusion. When the writer had completed the arrangements for taking his present house, the agent handed him a "Bramah" key, saying—"There, sir, is the key; and I may tell you it will open any door in the street." The fact is, most so-called "Bramah's" are shams; the real Bramah's, to be had only at their shop in Piccadilly, are very trustworthy; and it would be a good investment to get one. The writer did so, and can leave his door at night under the protection of the latch-lock with entire confidence.

The Army Medical Department.

To the Editor of the Medical Times and Gazette.

Sir,—The scheme for the formation of an army Medical reserve detailed in your issue of October 22, is not one that will find general favour with the department or meet the necessities of the service, inasmuch as it is very one-sided, and assumes that officers of over twenty years' service would be willing for an earlier retirement on a slightly increased pension, at election retirement rates, to bind themselves to return to active service if required to do so at any period between the ages of 43 and 55. That this is an erroneous premise to start from, a consideration of the following facts will prove:—

1st. But few Surgeons elect to retire on half-pay at twenty years' service, because the pension so obtained is insufficient for a family man, and but a bare subsistence for a bachelor. Almost without exception, retirements at twenty years are on the recommendation of a Medical board, on 16s. 6d. per diem.

2nd. At twenty years' service, most of which is in the tropics, few men are sound, and would have no difficulty in obtaining the above pension without liability to future service, and they would not care to bind themselves to serve again for such a trifling increase to their pension as 2s. per diem; and, as a rule, it is only in cases of impaired health that men care to retire at twenty years under present rules, as the increased pay allowances and rank as Surgeon-Major, and the certainty of acquiring a right to a pension of 20s. a day on completion of twenty-five years' service, without liability to further service, is of itself a sufficient inducement to them to complete that amount of service. The pension so obtained, though sufficient for a single man, would, to the married man without private means, be but a bare subsistence, and his necessities would oblige him to go into practice or enter on some business to supplement his pension and support his family. To such a man, a return to active service, and the consequent sacrifice of his business or loss of his practice, acquired either by payment of a considerable sum or by years of toil, would simply be ruin, and would require to be compensated for at a high rate—a much higher rate than Government would be willing to pay.

No; an army Medical reserve, if required, must be obtained by giving a small retirement to Assistant-Surgeons, with a right to an increased pension on attaining the age of fifty-five years. Such a scheme would induce a number of the best men in the Profession to enter the army and acquire a knowledge of the service and of tropical diseases before they settled down in private practice; and if such service gave a claim to home Government employment, such as health officers of towns, sanitary inspectors, coronerships, charge of military and other prisons, and militia regiments, etc., it would be an additional inducement for young Medical men to pass the first years of their Professional life in the army. The proportion of Surgeons-Major and Surgeons to Assistant-Surgeons in the army is about 1 to 3, and unless the pensions of Surgeons are very largely increased to induce them to retire early, the assistants' prospects of promotion cannot be improved.

The proposal to promote men to the rank of Surgeon after twelve years' service as assistant, though very suitable for the Indian Medical Department, where every Medical officer has a distinct and separate charge, would not answer in the line, and, if tried, would soon prove as great a failure as the Indian Staff Corps, in which there is a superfluity of field officers and a dearth of subalterns. Besides purely Medical and Hospital duties, there is a great deal of military, parade, and garrison or general duty, which the custom of the service divides between the two ranks; and the immunity from many trifling and irksome duties which are, as a rule, performed by the Assistant-Surgeon, and which in themselves require no special qualification, is one of the most valued privileges conferred by rank and length of service. The Assistant-Surgeon, on promotion to the rank of Surgeon at twelve years, would, even though he remained with a regiment as a junior Medical officer, want to share equally the duties with the senior, and would thus cease to be his assistant, taking no account of the responsibility resting entirely with the senior in charge: it would create confusion and discontent, and Surgeons and Surgeons-Major would feel that they were treated differently to Majors and Lieutenant-Colonels, who are never expected to perform the duties of subalterns.

The writer on the reserve has many to coincide with him in condemning the proposal, which, some time since, is supposed to have emanated from Whitehall-yard, of doing away with regimental Medical officers, placing the whole department on one staff list, and rendering them liable to be sent from regiment to regiment, or from station to station, as suited the caprice of the administrative officer of the department under whom they might be serving. It would, in a great measure, do away with independent thought and action, and foster favouritism, nepotism, and sycophancy, and place a dangerous power in the hands of the inspectorial ranks. A change of station to a married man is a very great expense, and if it resulted from his giving a dissentient opinion to anything that found favour with his administrative chief, it would simply be the infliction of a heavy fine. In many instances, a difference with a commanding officer would, to save trouble and correspondence, be settled by changing two Surgeons, and thus putting both to considerable expense. Surgeons have often very disagreeable duties to perform. A refusal to grant sick certificate to officers who wish a trip home at Government expense makes a man very unpopular in a regiment, and the possibility of being moved on a frivolous pretext would often prevent a man doing his duty in an independent manner.

A scheme for the formation of an army Medical reserve, to be a success, should be one that would commend itself to the Profession at large and be generally approved of by the men in the service, and would necessitate considerable modification of the terms of military Medical service. It should embrace the following:—

1st. Service in the junior rank of Assistant-Surgeon must be curtailed in the first instance by the employment of short-service men, who, on completion of five, seven, or ten years' service, would retire on a small pension, entering the army Medical reserve, and by service in it to the age of fifty-five, qualifying for an increased pension of, we will say, ten shillings per diem; and in the second by an accelerated promotion to the rank of Surgeon, by giving the latter an improved pension after twenty years' service, and by compelling all executive Medical officers to retire on completion of twenty-five years' service, or, at least, offering no inducements for their remaining after the completion of such period. The pay of executive Medical officers should increase after fifteen years' full-pay service by yearly (instead of five-yearly) increments up to twenty-five years, after which there should be no further increase, and, therefore, no inducement to remain on full-pay, and thus stop promotion.

2nd. A definite scale of pension should be given of (say) one shilling per diem for each year's service between fifteen and twenty years. Such pension should be awarded by a Medical board; but after twenty years every Medical officer should, without reference to rank, have a right to claim retirement at this rate up to twenty-five years.

3rd. Officers so retired to be liable to be recalled to the service in the rank of Deputy Inspector-General, but to have no claim to such promotion unless at time of retirement they elect to be placed on an active half-pay list, receiving 20 per cent. less pension; this stoppage to be carried to a reserve fund.

4th. Promotion to the rank of Deputy Inspector-General to be given by strict seniority—it, however, resting with the Director-General and the authorities of the horse guards and war-office to pass any man over; but if so passed over the officer to be entitled to the refund of the 20 per cent. and an increase to his pension of sixpence per diem for each year he remained on the active half-pay list, provided that he has not been passed over for Professional incompetence or misconduct. Men suffering from organic disease, of impracticable temper, or of ascertained unsuitability for administration, should at twenty-five years' service be placed on permanent pension, and not have the option of going on the active half-pay list.

5th. Service in the rank of Deputy Inspector should be limited to five years, and officers retired after such service should be placed on a list for promotion to Inspector-General, should they desire it, on a lower rate of pension than they would receive if they accepted permanent retirement. Administrative pensions to consist of the ordinary pension of all Medical

officers over twenty years' service, with a special pension in addition for their rank.

With such a scheme as the above, I believe that there would be a steady current of promotion throughout all the ranks, and the discontent which now reigns would disappear, and there would be better prospects for every

ARMY SURGEON.

THE NUMBER OF LICENSING BODIES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The condition of the Profession is generally allowed to be unsatisfactory. The nineteen different examining bodies, from their natural antagonism, do not tend to mend matters; hence the demand for one portal to the practice of Medicine. If we wait for Parliamentary action, "it may be for years, or it may be for ever," as any alteration must cause loss to some body corporate, who will naturally complain. Is it possible for the members of the different societies to agree to a self-denying ordinance, and thus gradually diminish the evil? For a beginning—Will the members of the Colleges of Physicians of the three kingdoms make a rule to grant their licences only to graduates of the Universities of their own portion of the United Kingdom? Men do not like to cast a slur upon their own degrees, and some wish to conceal the place of their education, but the majority must be anxious for the good of the Profession in general. Cannot the Universities again appoint one examining board—at any rate, for matriculation? These are days of societies, and a society to diminish the number of licensing bodies might gain sufficient influence materially to reduce this evil. I am, &c. F.R.C.P.E.

COMMUNICATIONS have been received from—

Mr. WILLIAM HOPE; F.R.C.P.E.; Messrs. A. and M. ZIMMERMANN; Dr. GRAY; Mr. JAMES SIMMS; Mr. J. P. PURVIS; Mr. J. HARDIE; ARMY SURGEON; Dr. A. MERCER ADAM; INQUIRER; Dr. BODINGTON; Dr. HAMILTON ROE; Dr. MAUNSELL; Mr. WEIGHTMAN; LIVERPOOL; Dr. LEBERT; Mr. HANCOCKE WATHEN; Mr. POOLE; Dr. J. G. WILSON; Dr. B. W. RICHARDSON; Mr. J. CHATTO; Mr. BEWLEY; Mr. C. H. WATTS-PARKINSON; Mr. METCALFE JOHNSON.

BOOKS RECEIVED—

Observations on some of the More Recent Methods of Treating Wounds, and on Excision of the Knee-joint, by Edward Lund, F.R.C.S.—The Chemists and Druggists' Almanack and Diary, 1871—Balfour Stewart's Lessons in Elementary Physics—Descriptive Catalogue of the Dermatological Specimens contained in the Museum of the Royal College of Surgeons of England. By Erasmus Wilson, F.R.S., F.R.C.S.—Hovell on the Real Nature of Hysteria—Cleveland on the Modes of Dying, etc. —Foster's Essay on Method and Medicine—Duncan on the Mortality of Child bed and Maternity Hospitals—Lambert sur les Grossesses compliquées de Myomes Utérine—Miller's Inorganic Chemistry—Little on Median Lithotomy.

NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Manchester Daily Examiner and Times —Leicestershire Chronicle—New York Medical Gazette—Cambridge University Reporter—Medical Press and Circular—The Brighton Examiner—The Northern Whig—The Suffolk and Essex Free Press—Philadelphia Medical Times.

APPOINTMENTS FOR THE WEEK.

December 17. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. Dr. Stevenson, "Some Observations on the Properties of Chloralum." Dr. C. J. B. Aldis, "Scarlet Fever for Ten Years in the Parish of St. George, Hanover-square." Prof. John Gamgee, "The Milk-Supply for Towns." Dr. Ballard, "Notes of a Case of Pemphigus, following upon Inoculation from an Eruption upon Milch Cows."

19. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. Brudenall Carter, "Demonstrations of Diseases of the Eye." Mr. John Hainworth, "Incision *vice* Excision of the Tonsils." Mr. Gay (the President), "A Case of Glanders in the Human Subject." Dr. Thudichum, "Clinical Experiences of the War."

20. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

ANTHROPOLOGICAL SOCIETY, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Dr. Tilbury Fox, "Case of Devergie's Pityriasis pilaris." Mr. Spencer Watson, "Sarcoma of Leg (removed by Dr. Swift Walker, of Hanley); Eyeball with Extensive Ossific Deposit and peculiar Opacity of Cornea; Eyeball with a Small Ossific Deposit." Dr. Greenhow, "Spinal Cord from a Case of Motor Ataxy." Mr. J. E. Adams, "Exostosis of Cranial Bones; Tubercular Disease of Testicle." Dr. Whipham, "Disease of the Lungs in a Porpoise." Dr. Dickinson, "Cystic Growth connected with Lumbar Glands."

21. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

SOCIETY OF ARTS, 8 p.m. Meeting.

22. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

23. *Friday*.

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 10, 1870.

BIRTHS.

Births of Boys, 975; Girls, 947; Total, 1922.
Average of 10 corresponding weeks, 1860-69, 1958·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	755	831	1586
Average of the ten years 1860-69	761·0	748·3	1509·3
Average corrected to increased population	...	...	1660
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	7	5	20	2	7	1	6	1	3
North ...	618210	10	5	25	2	5	...	9	2	2
Central ...	383321	4	3	15	1	1	1	...	...	...
East	571158	34	5	15	1	9	5	7	3	4
South	773175	6	9	41	1	10	5	4	10	4
Total	2803989	61	27	116	7	32	12	26	16	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·770 in.
Mean temperature	32·5°
Highest point of thermometer	40·8°
Lowest point of thermometer	25·3°
Mean dew-point temperature	29·6°
General direction of wind	Variable.
Whole amount of rain in the week	0·84 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 10, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Dec. 10.	Deaths Registered during the week ending Dec. 10.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	1922	1586	40·8	25·3	32·5	0·28	0·84	2·13
Portsmouth ...	122084	12·8	62	47	41·8	23·6	32·3	0·17	0·35	0·89
Norwich	81087	10·9	48	50	39·0	27·7	33·4	0·78	1·46	3·71
Bristol	171382	36·6	128	112	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	54	22	41·3	21·7	32·8	0·45	0·36	0·91
Birmingham ...	369604	47·2	266	160	42·7	25·5	33·9	1·06	0·59	1·50
Leicester	97427	30·4	60	67	43·0	21·7	32·8	0·45	0·83	2·11
Nottingham ...	88888	44·5	41	34	44·1	20·4	34·0	1·11	0·86	2·18
Liverpool	517567	101·3	339	401	44·0	27·5	36·5	2·50	0·68	1·72
Manchester ...	374993	83·6	254	168	...	...	...	...	...	...
Salford	121580	23·5	96	48	41·7	23·0	35·1	2·73	0·40	1·02
Bradford	143197	21·7	90	89	46·0	29·0	37·3	2·95	1·19	3·02
Leeds	259527	12·0	119	133	45·0	30·0	37·9	3·28	1·60	4·06
Sheffield	247378	10·8	188	101	45·0	24·5	35·7	2·06	1·11	2·82
Hull	130869	36·7	90	56	46·0	21·0	34·7	1·50	1·50	3·81
Sunderland ...	100979	30·5	74	41	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	80	51	45·0	28·0	36·4	2·44	1·82	4·62
Edinburgh	178970	40·4	124	85	43·7	29·0	37·0	2·78	0·60	1·52
Glasgow	468189	92·5	305	278	43·5	25·7	36·8	2·66	0·64	0·10
Dublin (City, etc.*)	321540	33·0	137	147	45·0	24·0	34·2	1·22	0·06	0·15
Total of 20 Towns in United Kingd'm	7216325	33·8	4477	3676	46·0	20·4	34·9	1·61	0·84	2·13
Paris—Week ending Dec. 10	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Dec. 3 ...	622087	167	...	318	...	...	42·8	6·00	...	...
Berlin—Week ending Dec. 8 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·770 in. The highest barometrical reading was 30·26 in. on Sunday evening, and the lowest was 29·52 in. on Thursday morning.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

MEDICAL CLUB.

For Members of the Medical Profession, Literary and Scientific Men, and Medical Officers of the Army and Navy.

The premises at present occupied by the Union Bank in PALL-MALL EAST and SUFFOLK-STREET have been secured, for the purpose of converting them into a Club-house, and the Medical Club will remove to them some time during the ensuing Summer. In the meanwhile it will continue to be conducted in the present house, No. 9, Spring-gardens.

New Members will be received during the present year upon paying an Entrance Fee of Eight Guineas, and the following annual subscriptions—viz., London Members, Five Guineas; Country Members, Three Guineas; Supernumerary Members (*i.e.*, whilst abroad), One Guinea. All subscriptions paid before the 1st of January next will free the Members until the 1st of January, 1872. After the first of January, 1871, the terms of admission will be raised.

Medical Club, Spring-gardens, 10th November, 1870. H. T. L. BEWLEY, Secretary.

HUBBUCK'S PURE OXIDE OF ZINC.

See Pharmaceutical Journal of May 1, 1856.

Sold in Stamped Boxes of 14 lbs. each, by the following Wholesale Druggists:—

Messrs. Baiss Brothers & Co.	Messrs. Geo. Curling & Co.	Messrs. Hearon, Squire, & Francis.	Messrs. Preston & Sons.
,, Barron, Harveys, & Co.	,, Drew, Barron, & Co.	,, Herrings & Co.	,, Southall, Son, & Dymond.
,, Battley & Watts.	,, Evans, Lescher, & Evans.	,, Hodgkinsons, Stead, & Treacher	Mr. James Woolley.
,, Burgoyne, Burbidges, & Co.	,, Evans, Sons, & Co.	,, Langtons, Scott, & Edden.	Messrs. Wright, W. V., & Co.
,, Cox, Gould, & Co.	,, Samuel Foulger & Son.	Glasgow Apothecaries' Co.	

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CHLORODYNE.

SPECIAL NOTICE.

The absurd statements that have recently appeared in Medical and other Journals respecting the constituents of Chlorodyne (each analysis differing widely), J. T. Davenport is compelled to further CAUTION the Profession against using any Compound under the name of Chlorodyne but the genuine, which alone has gained such extraordinary celebrity.

J. T. Davenport appends Medical testimony in confirmation of the above.

The wonderful efficacy of Chlorodyne being universally acknowledged, it must be evident to all that the assumption of the name to any other Compound than the Genuine is not only dishonest in obtaining money under false pretences, but still more unprincipled by injuring the health of the Patient and causing discredit to the Physician. Even death has resulted from the use of spurious Chlorodyne when benefit had been previously experienced from the genuine; and this melancholy circumstance has no effect in restraining these heartless proceedings.

From Dr. J. WILSON, Castleton, Yorkshire.

I require to use a considerable quantity of Chlorodyne in cases where no other medicine is of the least avail; and my object in wishing a supply from your own establishment is that I am frequently deceived by getting a *Spurious* article from other places, although I never order anything but the genuine Browne's Chlorodyne.

From JAS. ATKIN, M.D., Medical Officer, Fever Hospital, Oldcastle, Co. Meath.

Having ordered from our Druggists "Chlorodyne," I was not only *disappointed in its effects*, but annoyed when I received a spurious compound. I have been in the habit of using your Chlorodyne with great advantage to my patients and satisfaction to myself.

From F. E. BARTON, Esq., Surgeon, Dover.

I have now used your Chlorodyne in numerous cases, and have much pleasure in adding my testimony to its very great efficacy as an Anti-spasmodic and Anodyne, having found it especially valuable in those cases in which Opium does not agree well with the patient.

From Lord FRANCIS CONYNGHAM, Mount Charles, Donegal, 11th December, 1868.

"Lord Francis Conyngham, who, this time last year, bought some of Dr. J. Collis Browne's Chlorodyne from Mr. Davenport, and has found it a most wonderful medicine, will be glad to have half a dozen bottles sent at once to the above address."

"Earl Russell communicated to the College of Physicians that he received a despatch from Her Majesty's Consul at Manilla, to the effect that Cholera has been raging fearfully, and that the ONLY remedy of any service was CHLORODYNE."—See "Lancet," 1st December, 1864.

THE WAR.—EXTRACT OF LETTER.

25, Wetter Strasse, Bonn-on-the-Rhine, August 26th, 1870.

I have for some years used Dr. Collis Browne's Chlorodyne, and have a high opinion of it as a sedative. I have within the last fortnight used it with some Prussian soldiers severely wounded with the Chassepot: it answered admirably. In severe cases of Chassepot wounds the patients were harassed with cough, especially at night. The Chlorodyne completely allayed, and finally removed, it. I should consider it quite invaluable as a remedy to give where primary amputation was requisite, but the patient in too low a state from shock to the nervous system to allow of operation until rallying of the condition admitted of it.

(Signed) CHARLES MADDEN, Retired Surgeon, Bengal Army.

To Mr J. T. Davenport, 33, Great Russell-street, London.

CAUTION.—Vice-Chancellor Sir W. Page Wood stated that Dr. J. Collis Browne was undoubtedly the Inventor of CHLORODYNE, that the whole story of the Defendant, Freeman, was deliberately untrue, which, he regretted to say, had been sworn to.—See "Times," 13th July, 1864.

The Sole Manufacturer of Dr. COLLIS BROWNE'S Chlorodyne is

J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury-square,

Who alone received the Recipe, and who is the Only Authorised Maker.

ORIGINAL LECTURES.

LECTURES ON ANALYTICAL PATHOLOGY.

DELIVERED AT

Guy's Hospital.

By W. MOXON, M.D., F.R.C.P.,
Assistant-Physician and Pathologist to the Hospital.

Lecture XI.

ON THE NATURE OF SCROFULA AND ITS RELATION TO TUBERCLE, AND ON THE VARIETIES OF TUBERCLE.

It is scarcely possible now to conceive the ardour with which the relation of inflammation of the lungs to tubercular phthisis was fought out by Laennec and Broussais, because now we no longer use such severe measures in cases of acute pulmonary inflammation as were common practice in those times; but we ought to make an attempt to estimate the difference our milder methods of acute disease have introduced into our discussions of this subject. So that now the practical issue scarcely exists, and the dispute is rather an effort to reach exactness in the means of recognising, or correctness in the modes of viewing, phthisical cases. Now that no one would bleed or otherwise depress a feebly constituted person with acute pneumonia, but rather would treat him with tonics and support to the best of his endurance, in just the same way as he treats phthisis, it matters practically little whether I think that the process in the lungs is pneumonic or not; whereas, when I was bound to bleed for every pulmonary inflammation, it was a very serious question, for my patient at least, whether I thought his spreading tubercle masses were or were not inflammatory. But if the relation of tubercle to inflammation has thus become more a scientifically pathological question, this must be greatly to our advantage in solving it, for the warmth that rival practice excites is allayed, and we ought now to be able to administer to it justice duly and indifferently. Even when Dr. Addison, in his celebrated papers on this question, wound up his views of the relation of tubercle to inflammation in this saying, which cannot be too fully accepted, or too deeply appreciated—namely, "*that inflammation constitutes the great instrument of destruction in every form of phthisis*," he had set before his eyes, as an object in his inquiry, the aim there would be in the discovery of inflammation to favour the use of antiphlogistic measures, such as bloodletting, counter-irritation, as soon as the inflammatory destruction of the lung was recognised. But now that pneumonia itself is treated gently, we can state the relations of tubercle and pneumonia without fear or favour.

Before entering into detailed consideration of tubercle, it is well to consider certain things or words which are so closely linked in with the ordinary signification of tubercle that it is impossible to make any clear way until their relations are defined. These things are, scrofula and phthisis. The three notions—scrofula, tubercle, and phthisis—are continually confusing each other.

Now, first, as to scrofula, what is it? or what do people say that it is? When its meaning is strictly stated at all, it is put as a tendency to slow and obstinate changes in the glands, or, according to most, in other tissues—these changes set up by trifling causes, or causes which are insufficient to produce them in ordinary people. But definition of things by "tendency" is vague; attractively vague if you want to cover doubt, repulsively vague if you want to reach clearness. In any given person as to whom you wish to apply your knowledge of scrofula, there will either be changes in the glands, etc., or not. Now, if there be the change, there is more than tendency, and the change must be recognised; but if there be not the change, then you cannot know the tendency, unless there be signs of its presence, and then these signs will define the scrofula. Such signs of tendency are, perhaps, what most people mean by scrofula, in its ordinary acceptance. This would be right and practical enough if the signs of tendency to changes in the glands were kept apart from the signs of the occurrence of the changes; but the descriptions of scrofula confuse these distinct things, and the more important points in the descriptions are really symptoms of the changes themselves already in progress. Most authors on the subject describe a dark sort of scrofula and a fair sort of scrofula; and it appears to me that, except so far as the descriptions are of distinctly morbid changes, such as swollen glands, hectic flush, etc., in the fair sort, and swollen abdomen and thin limbs, etc., in the dark sort, they do no more than describe commendable good looks in the fair and tall kind, who are vivacious, excitable, clear-skinned, and rather thin-blooded, or else unpleasing aspects in sallow, dusky-skinned, stunted, melancholy, torpid, and otherwise generally uncomfortably organised people. These differences, unfortunately, you find to be exceedingly widely distributed in society; so that, excepting a minority of strongly built and vigorous members—and these, perhaps, only when their health is quite robust—the whole population might feel itself caricatured by such widely inclusive descriptions of mere development and feature, according to whether they are good-looking or not. Indeed, I believe that, if you exclude actually diseased conditions, such as early phthisis or abdominal tubercle, very little will remain that is capable of being used to any good service in these general descriptions of scrofula, in the way of recognition of classes of people liable to this or that change, although I must admit that the impressions of many experienced people appear to be different to this. It is, of course, one thing to disbelieve that there are any signs by which you can know that such-and-such people are prone to scrofulous glandular diseases, before the disease is already in some stage of progress, and another and quite a different thing to disbelieve that there is such a diseased tendency of the glands. This is, in fact, not matter of belief, but a fact that must be recognised, however we explain it. Some persons show a tendency to enlarged glands, the glands so enlarging from insufficient causes, and remaining persistently enlarged for long periods, and tending to slow destruction by inflammatory degeneration or suppuration of the gland. You may discuss the question whether this state of the glands is due to a poison in the blood—*virus scrofulosum*, or whether it is due to prolonged unhealthy action in the region of tissue from which the lymph comes to the gland, or whether it is congenital imperfection of the glands, that gives them a feebleness of resisting power, as some people have weak skins and hair.

But the existence of this sort of disease of the glands is what you constantly meet, and it is on all hands allowed—not that everyone who has enlarged glands is scrofulous: after scarlet and other fevers, we find the glands enlarged and inflamed, and this state lasting long. But the glands here have apparently sufficient cause of their irritation, and it is only when the cause of the irritation is insufficient, or the duration of the disease very long, that you consider the anomaly due to a scrofulous state. Either of the three hypotheses I have enumerated to you—the state of the blood, the abnormal state of the tissue the lymph comes from, or the congenitally weak organisation of the gland—points to a peculiarity which we should see as an intrinsic one, and place to a variety of constitution of the individual. It is this belief (that the peculiarity is intrinsic in the individual) that is the real underlying ground of all the notion of scrofula, the condition which makes the disease specific from intrinsic conditions—in other words, as I say, an intrinsic specific disease.

I have so far spoken of scrofula as belonging to glands, because it is chiefly in the glands that it is decidedly recognised—indeed, the etymology of the name probably, and certainly the original application of it, was limited to the enlargement of the cervical glands. But the sort of disease in the glands, so far as it is a slow inflammatory degeneration tending to slow suppuration, occurs in other tissues, and when it so occurs it tends to infect the glands secondarily and produce in them a condition very like that in scrofulous glands. Hence, the idea of scrofula is extended to these other slow inflammatory degenerations. I think this is to be regretted and stopped; for, as soon as you leave the simple thought of scrofula, that it is a tendency to enlargement of the glands arising from intrinsic causes, then, forthwith, you begin to tread upon ground already occupied by other terms of recognition, which are, unhappily, like scrofula itself, of vague limits, though obstinately adhered to because really required for particular uses—I mean tubercle and phthisis.

While you keep scrofula to glands and phthisis to the lung, you get at least a territorial distinction between them, which makes them as distinct as arachnitis from hepatitis—a distinction which, for all practical purposes, is to be maintained, and the nature of which is clear enough. I believe that phthisis is as much scrofula of the lung as hepatitis is arachnitis of the liver, and no more. The nature of liver makes a hepatitis to not be an arachnitis, and the nature of lung makes a phthisis

to not be a scrofula; and so far as a disease of a tissue is an act of the elements of the tissue, so far locality is a valid and sound basis of division of diseases. Now, when a disease takes its rise from intrinsic peculiarities of the tissue affected, it is the more certain that the tissue itself largely determines the real nature of the disease, and hence that any two diseases so intrinsically arising are inherently and essentially different. Hence all that leads us to think scrofula an original peculiarity of glands tends certainly and unmistakably to make us believe that it must be different from phthisis. Heberden in his time described the lung in phthisis as "*refertum glandulis tumefactis;*" but curiously like as young vomicæ are to enlarged glands, they are not of the same nature. I say this notwithstanding that the prevalent views of Professor Virchow (which in some of his teaching appear to make tubercle, and so phthisical formation in the lung, really represent glandular substance, or "adenoid tissue," as it is called) have made the remark current with some that the old view of the phthisical lung as stuffed with glands is verified by Virchow, but I believe over much may only too easily be made of adenoid tissue. The peculiarities of adenoid tissue—which, after all, is only lymphoid cells and fibrils, with, perhaps, a concentric arrangement of these perceptible round vessels—these peculiarities may be described as very common peculiarities, too vague and unparticular to ensure that, when they are relied upon, they may not be bringing together very different things. I think it is quite enough to show one this risk when one observes that Virchow, by means of these adenoid characters, brings together in the same group leukæmia, typhoid fever, and scrofulous glands; for these diseases, in all their available and practical characters, stand in triangular opposition to each other.

Scrofula, then, is either a vague way of describing good and bad-looking sorts of people, or it is a disease of the glands, which some believe the bad-looking sort are liable to, and some believe both sorts are liable to—but, as I think, without sufficient ground for their belief, unless, which is not fair, the disease has already invaded the good- or bad-looking individual in question. Or again, as I have said, there is a tendency to spread the name from the glands to a parallel disease in other organs—a tendency which is by all means to be opposed. There is difficulty enough in these questions without introducing unnecessary confusion. Scrofula should be limited to a state of the glands.

Next let us examine what is tubercle. As in the case of scrofula, there is something which we mean by tubercle which we agree upon and want a word to express. The difficulty begins when we try to make out when to cease calling things tubercles, and to begin calling them scrofula or inflammation—but this difficulty we shall conquer by seeing the importance of the act of the tissue in all formative disease; the extent to which the nature of the tissue is still modifying the disease so that scrofula can be kept for a gland disease, and tubercle seen as a limitation of diseased action to a certain peculiarity of plan and distribution, which is not in any relation of opposition or contradiction with scrofula, and we may have a tuberculous scrofula.

By a tubercle we still all mean what Laennec meant, a hard little knot in a tissue, say of the lung or of serous membranes, where it is best known; this little knot being evascular or nearly so, and of one of two appearances—either a grey semi-pellucid or a yellow opaque little knot. These, found in numbers, generally clustered or even massed into a large lump, are what we still mean, and shall mean, by tubercles. So soon as you get away from this form of a little knot, then you begin to have difficulty in seeing why your tubercle is not "common inflammation." It is important to note the hardness of the knot: the finger finds it better than the eye. The little spots of pneumonia, the so-called "granular pneumonia," which arise secondarily from disease of bronchial tubes, will often look very like tubercles; but they never feel like tubercles. The finger misses the hardness of tubercle. This hardness has been ascribed by Rokitansky to a greater coagulability of the effused matters, which he supposes come out of the blood to create the tubercle, and he appears to think that the hardness and dryness of the tubercle explain its sluggishness and torpor and little tendency to organising change. There is, however, no reason to think coagulation has anything to do with the process. The knot is hard because its solid elements, which are growing cells, are fitted tight together, with little liquid between. To think of the change as coagulation is to see a living action in a very dead way. Stress has also been laid by him and others on the chemical composition of tubercle, and we have the fibrinous, the fibrino-croupous, the croupous, and the albuminous, which is a very curious example of cross-division—as if animal solids could be chemically divided into fibrine, croup, and albumen! (a) All these chemical views are very well so that you do not attach any importance to them. The chemist does not at all show you the nature of living things, but only what he can divide, or, to give a word that probably corresponds more with the relative delicacy of his operations, smash them into by his rough usages. The formation of tubercle is a vital living process, a growth; until he believes that and feels it, no student should be allowed to look off his microscope. As a living process it is not chemical; it is done in spite of chemistry, and is no more in the chemical line than is necessary for it to move in direct opposition to chemistry.

Now, the first thing to remark is this—a great deal too much has been made of the two varieties of tubercle, and of its miliary form. One would think, to read and hear how these two varieties of tubercle are discussed, that they were as distinct from each other as cats and dogs. But the truth is, that it is by no means easy to say, as a general rule, whether a tubercle is grey or yellow. You know, when I take your opinions in the post-mortem room, the result is usually that the same tubercle is called grey by one-half of you, and yellow by the other—and I profess my inability to say which is right. Besides the grey tubercle and the yellow tubercle, there are greyish-yellow tubercles and yellowish-grey tubercles, and intermediate degrees *ad infinitum*; and this not only in different cases, but in the same case. In reference to form, also, you would think that tubercles are very like millet-seeds, and very like each other, if you followed most current descriptions. Most of us are bad judges of the first point, for we only know millet-seeds by hearing tubercles likened to them. Tubercles, however, are really not at all like them. This is a minor point; but as the millet-seed likeness forms the main bond of union between the tubercles, it is well to dismiss it when going on to perceive the really very various sizes of the minute tubercles, which are commonly thought alike and miliary. It is quite a mistake to suppose that there is a definite size for tubercles, which they all correspond, or nearly correspond, to. The fact is quite otherwise. The best specimens to make the observations in are those which have been kept in spirit for some time, and especially injected spirit-kept specimens. If you look at the tubercles in such cases, you will find that they really are of all sizes, and they are only thought to be of the same size because they are so small that their differences are not striking enough to catch attention, as in sand-grains or stars. Now, if you look at this specimen carefully, you will see some of the tubercles as dots on one air-cell wall, and not even filling one cell. Others fill several air-cells, and others are larger still; but none reach a considerable size without others starting in their immediate neighbourhood.

Before, then, entering on the question of the relation of grey and yellow tubercle and the nature of miliary tubercle, we should see that the grey and yellow tubercle are very much less distinct than is generally accepted, and they form rather opposite extremes of a graduated scale of conditions of tubercle, whose intermediate members are many times more numerous than these extremes. And the miliary tubercle is very much a myth, in the case of which, as usual with myths, it is practically important to know not so much what truth underlies the myth as why the myth overlays the truth. When you put the question thus, you will find that it is not anatomical exact inquiry which makes the story of miliary tubercle, but rather the vast clinical importance, and the clinical identity of the cases in which this form of tubercle is most largely and typically developed, which favours the assumption of an equal identity in the morbid change. It is the clinical peculiarity of the cases of so-called miliary tubercle that shows a sort of identity in the tubercle, and in 98 per cent. of post-mortems in such cases, it is enough that you see little knots, and make your mind up, perhaps, that they are grey or they are yellow, having been schooled to think they must be one or the other.

(To be continued.)

General Infirmary, Leeds.—Notice has been given of a proposal to alter the rules, at the next meeting of the General Board, to vest the election of Physicians and Surgeons in a special committee to be appointed for the purpose, instead of in the General Board, as hitherto.

(a) To do him justice, we must see that, by croupous, Rokitansky means, not what we mean by croup, but the matter of pneumonic exudations, or diphtheritic pellicles, etc.; but the pneumonic formation which he calls croupous is not distinguished by its chemistry from fibrine and albumen, while these are distinguished chemically, so that the division is a bad cross-division.

ORIGINAL COMMUNICATIONS.

ON THE

ANALOGIES OF CHOLERA NOSTRAS AND OF CHOLERA INDICA.

By JOHN MACPHERSON, M.D.

(READ BEFORE THE MEDICAL SOCIETY OF LONDON.)

I PROPOSE to call attention to the very close analogies existing between cholera nostras and cholera Indica. To discuss the value of such analogies in general, or to go into detail respecting the evidence on which the following comparisons are based, would be impossible within the limits of a paper of this kind. But when we consider how little practical result, as regards treatment, has hitherto attended minute inquiries into the nature of the cholera poison, or the patient study in recent times of the choleraic process, it may be well occasionally to look at the disease in its more general aspects, and to view the great broad facts of its natural history, as they made their impression on the Practitioners of successive ages.

Such a survey shows how Medicine repeats itself—how the germs of most of the recent theories are to be found in past ages; and it also excites one's marvel at the sanguine spirit in which the leaders of scientific and of Medical opinion take up the latest theoretical views—views often destined to have nearly as ephemeral an existence as the fungi which have of late found such favour in many quarters. Nothing can more clearly illustrate that craving for positive theory and dogma which is natural to the mind of every student of science.

But it may be said, at first sight, common and Indian cholera are easily distinguishable; one is a trifling, the other is a very serious disease—why discuss the analogies of things so unlike? A further examination of the subject will, however, satisfy everyone that, different though a mild case of cholera simplex is from one of cholera Indica, yet severe cases of the two are with difficulty distinguishable.

With justice, indeed, did Mercurialis, a Paduan professor, in the end of the sixteenth century, speak of the Protean nature of the malady, and our own Sydenham, a hundred years after, say that cholera of one season differed *toto cœlo* from that of another. It has been confounded constantly with other diseases. In the East with indigestions, colics, convulsions, and the endemic tetanus: for instance, the only notice of cholera I have found in Averrhöes is under the head of "Syncope." In Europe, from the time of the Greeks, it has been mixed up with colic, dysentery, diarrhœa, and intermittent fever.

In all parts of the world (especially in southern countries, including the East Indies), and apparently in all ages, there have been a milder and a more severe disease—a sporadic and an epidemic form; and, without troubling you with the names of the various forms described by Eastern writers, or a list of the popular names for the disease in Europe or in Asia, a mere enumeration of some of the names applied to cholera nostras by systematic writers will show the complexity of the disease:—Cholera, choleric passion, cholera morbus, cholera sicca, flatulenta, humida, biliosa, spontanea simplex, maligna, spasmodica, intermittens, sporadica, epidemica; also the remarkable name of febris cacatoria.

On these names I shall only remark that the variety maligna was established long before Indica was heard of in Europe: that an ordinary and a malignant cholera have always been known in all countries. Further, I would here venture to say that the description by the Father of Medicine of cholera sicca not that of a cholera at all, although that phrase is in modern times applied to certain forms of cholera.

These varieties, and the general habits of cholera, would be best illustrated by a history of the disease since the days of Hippocrates. The history of cholera nostras during the last few centuries has as yet only been partially made out, although we have distinct enough accounts of its prevalence in Europe. We have also ample evidence (a good deal of which is still unpublished) of the prevalence of cholera Indica in the East during the same period. Such a history cannot be entered on here, but all the following comparisons rest on an historical basis. They are the results of an analysis of what has been written and observed of the two diseases; of hasty and imperfect, as well as of complete pictures of the disease which have reached us.

I shall take the leading phenomena of the two diseases in succession, but can only touch on them in the briefest fashion.

1. As to symptoms, it is unnecessary to give in detail the symptoms of either disease; for our purpose, it is sufficient to look at the recent nomenclature of the College of Physicians. Cholera has wisely received a very wide definition. It is set down among the general diseases. Two forms are mentioned, simple and malignant cholera, which may be considered as equivalent to nostras and Indica. The first is not defined, but the latter is described as "an epidemic disease characterised by vomiting and purging (with evacuations like rice-water), accompanied by cramps, and resulting in suppression of urine and collapse." I have no occasion to find fault with this definition; but there is no one symptom laid down here, or that has ever been attributed to cholera Indica, that has not been observed in cholera nostras. Suppression of urine, and rice-water evacuations have commonly been considered the distinctive characteristics of cholera Indica; but the first of these was mentioned by Hippocrates, and has been noticed over and over again by those who have described cholera nostras of any intensity. The enormous serous discharge has often been characteristic of cases of cholera nostras. Morgagni in 1733, and Tralles in 1753, described it in their own persons, and, like many of their predecessors, said that it was clear and in ineffable quantity. And Short (1749), in describing fluxes, besides talking of a chylous and of a milky one, mentions "a clear, watery, serous, or lymphatic looseness, which is either clear as water, yellowish, or ash-coloured, which is most dangerous." Another symptom is secondary fever. Celsus hinted at it, and so did Cœlius Aurelianus. Rivières mentions it, and there are full accounts of it in the eighteenth century. Among the sequelæ, affections of the nervous system seem almost to have been more common after cholera nostras than after cholera Indica. Temporary albuminuria has been observed in both. Even the not very common sequela—a rash—is to be found in cholera infantum, which resembles cholera Indica quite as strongly as severe cholera nostras does. The out-of-the-way symptom of vomiting worms has also been occasionally described, both in cholera nostras and in cholera Indica. It might be said that certain changes in the temperature of the body are characteristic of cholera Indica. It may be so, but they have only been observed of late years, and probably have never been sought for in cholera nostras.(a) It has been said recently in Vienna that the stools of cholera nostras contain some pus corpuscles, those of cholera Indica do not; also that there is some difference in the action of chemical reagents on the two. But such facts are so imperfectly ascertained that for the present they cannot be considered of much importance, and there is as yet no positive means of discriminating between the evacuations of the two diseases. I must mention one other symptom which is common to both diseases, especially when they are epidemic, and that is the suddenness of the attack. Whether the patient has suffered from premonitory diarrhœa, has had some feelings of malaise, or has been in perfect health beforehand—and any of these previous conditions may occur—the actual invasion of the disease comes on unexpectedly. In both diseases the intelligence is not disturbed until unconsciousness supervenes.

2. The appearances after death have not been investigated as carefully or as frequently in cholera nostras as in cholera Indica; yet no difference has been pointed out. Staff-Surgeon Hunter, who had experience of cholera Indica, gives a post-mortem, at Chatham, of a case of cholera nostras, which, he observes, would do for the banks of the Ganges. That excellent observer, Griesinger, made some careful examinations, and could discover no difference. In a recent case of cholera nostras a quantity of detached epithelium was found in the intestines. Scoutetten, who has seen cholera in every part of Europe, and in Africa, had occasion to examine the bodies of some patients who died at Metz, in the autumn of last year, of cholera nostras: he can find no difference, except in the absence, under the microscope, of the so-called cholera sporules—a matter, I think, becoming of less importance as we know more about those growths. Griesinger observed that one of the bodies was very distinctly warmer than natural twenty-four hours after death. Muscular movements do not appear to have been witnessed after death in cholera nostras, but of course the opportunities for observing them are not great in a disease which yields but a small mortality.

3. *Nature of the Disease.*—We have no time to enter into the discussion of the opinions that have been entertained respecting the nature of the choleraic process, but the following are the leading opinions which have been expressed concerning both forms:—

1. That they were the manifestation of the action of a poison.

(a) I have since learned that they have been observed by Dr. Sutton.

2. That they were affections of the nervous system.
3. That they were attacks of acute or sub-acute inflammation of the stomach and intestines.
4. That they were forms of fever.

With respect to the various more recent theories respecting the mode of action of the poison in cholera Indica, I suppose that they would apply equally to cholera nostras.

4. If we turn to treatment, we shall find that much the same indications have been followed in cholera nostras and in cholera Indica. The earliest indication usually followed in nostras was to remove, besides crudities of food, altered phlegm or bile, or an unknown poison, just as with many at the present day the evacuation of a specific poison is their object. Some have in both diseases thought it best to endeavour to check excessive discharges. We find that the treatment of cholera nostras was a mixture of the diluent, the evacuant, the cordial, or stimulant, just as is now the case in cholera Indica. What in modern phrase is called elimiuative treatment was often carried out moderately, especially at the commencement of the attack, though it was disapproved of by many.

Perhaps I may be excused for alluding, in passing, to the employment in cholera Indica of a medicine used in cholera nostras, to the familiar mode of treatment of slight diarrhœas and summer choleras, especially among children—by castor oil. This method was brought before the Profession in England in 1854, as a therapeutic novelty in cholera Indica, and has been ever since pressed upon us as the typical, if not the exclusive, mode of elimination. Most of us are aware that croton oil and purgatives had been often used in cholera Indica, but I have only recently learnt (and this is my reason for alluding to the subject) that the employment of castor oil in cholera Indica boasts of a very respectable antiquity. It was used and officially reported on in Bengal about fifty years ago.(b). The report on it was rather favourable than otherwise, yet the treatment soon passed out of notice in India, to be again resuscitated for a time in England.

The spasms of the extremities have been treated alike, only that ligatures, and even the actual cautery, were sometimes used in India in the milder, as well as in the acuter form of the disease. Of course modern medicine has suggested various newer modes of treatment; they are generally applicable to both diseases.

5. Coming next to what have been assigned as causes of the disease—they have been identical in both. (*a*) The patient has been considered to have been predisposed by some irregularity of diet, by indigestible vegetables, fruit, or fish, by alcoholic excess, by poverty, by the exhaustion of great fatigue or of sexual indulgence, by some sudden fright, by exposure to rapid changes of temperature, and especially to night chills, when the body was insufficiently protected. (*b*) As to general causes, both diseases have been attributed to the air, to a certain epidemic influence acting on the system, especially on the biliary organs; they have been ascribed to irregularity of seasons, to heat (especially damp heat), to exhalations from the soil, and, in common with fever and dysentery, to marsh poison. The influence of showers of rain in producing the disease has been remarked, and the depth of water in wells has been regarded as an index of the healthiness of places subject to malaria. Both diseases have at times been attributed to contagion. At present the belief in the contagiousness of cholera Indica, and especially through the excreta of the alimentary canal, is much stronger than it has ever been in the case of cholera nostras. They have both been ascribed to drain-effluvia and to bad drinking-water. They have both been set down to the operation of a more or less known poison.

6. Both diseases occur sporadically, endemically, and epidemically. Both diseases are migratory. There have been some very considerable epidemics of cholera nostras—and a disease must have been tolerably widely spread, when it produced popular rhymes containing hygienic cautions for escaping it, as was the case in France; still their area has been small as compared with that of those of cholera Indica, and the Cholera Congress at Constantinople was right in considering its invading character as a leading feature of the latter, although, from their imperfect acquaintance with the history of the disease (which had long before that period spread all over the East, whether it reached Europe or not), they fixed the commencement of its invading character in the year 1817.

7. Both forms of cholera have always been thought, when epidemic, to act on other diseases; they both exercise what is called a choleraic influence, as on diarrhœa, dysentery, or fever. Indeed, this influence on intermittent fever seems to have been more remarked in nostras than in Indica. Besides what has always been admitted of their connexion with diarrhœa, in both forms dysentery has been described as running into cholera, and cholera as being transmuted into dysentery.

8. Both diseases are influenced much by season. This, I think, cannot be doubted, whatever may be said of the effect of particular meteorological changes. Both are undoubtedly diseases of heat, and of hot countries, and of the hot season of cold countries. That cold is inimical is certain.(c) It is remarkable how constant the season remains in particular cases. July, August, September, and October were the great cholera months for epidemics of cholera nostras in London, and specially August and September. Cholera Indica has visited London epidemically four times, and it is well to recollect that the chief mortality—nay, almost the whole mortality—has been in these months. Neither disease is absolutely tied down by season, though both diseases have usually shown a preference for particular seasons in particular places.

9. Both diseases appear to attach themselves to certain places and parts of places, and both, on the whole, prefer low, flat, damp ones. We have read of repeated outbreaks of cholera in Ghent, in Nemiguen, in London, in Breslau, in the south of France, in Italy, and in Greece. In like manner, we have accounts of cholera in Goa, on the Malabar, on the Coromandel coast, in Bengal, in Malwa, in Bombay, in Java. It appears always to have had many centres, and yet the notion that it is a pestilence specially bred in the sunderbunds of Bengal has become stereotyped—and this theoretical assumption, in my opinion, vitiates much excellent research respecting the diffusion of the disease.

10. There seems to be no evidence of cholera nostras ever being conveyed in ships, as cholera Indica is so readily, although they both agree in shewing a partiality for camps and assemblies of men.

Two or three other points of agreement, already slightly hinted at, are worth pointing out a little more distinctly.

Ætiology.—1. Although the opinion may require some modification, yet the popular view has always been that both diseases attack men most in the prime of life. This was the view of Aretæus respecting cholera nostras, and the French name of *trousse galant*, or "tuck up Spark," points in the same direction; but neither age, nor sex, nor race affords any immunity. 2. Travellers, and those who are moving from place to place, are specially liable to attacks of both diseases. 3. The commonest hour for an attack of either disease is in the early morning. 4. In both diseases the attack has been often attributed to the over-action of aperient medicines. Further:

In reference to Zymotic Diseases.—1. In either form, Practitioners seem not to have doubted that it was possible to prevent the full development of the disease, whether by diluents, evacuants, or opiates. 2. An imprudence during recovery was found to bring on a relapse, or absolute reproduction of the disease. 3. One attack gave no immunity from a new one during another epidemic. Lastly:

Analogies with other Affections.—1. The close analogy of the cold fit in some intermittents, and of the algide form of pernicious intermittent, to a choleraic seizure, has often been commented on with reference to both forms of cholera. 2. The close analogy of the effects of acrid poisons has been pointed out, with respect to both diseases, from the earliest periods, in a great variety of particulars, even down to post-mortem appearances and the nature of the evacuations. For instance, shedding of epithelium, and the presence of the sperules supposed to be characteristic of cholera, have been observed after arsenical poisoning, quite recently.

I hope that I have thus pointed out sufficiently the strong accordance in symptoms between cholera nostras and cholera Indica; that we have seen that there is no ascertained difference in their post-mortem appearances; that the theory of the nature and of the treatment of the two diseases has been identical; that they have both been attributed to the same causes, both external to and special to the patient; that they have the same character of being influenced by locality and by season; that they both exercise an influence on other diseases; that they both have at times been considered contagious, at other times not. Various smaller, but not the less curious, points of resemblance have also been indicated.

We are, therefore, now prepared to inquire—Is there no one characteristic symptom or group of symptoms, no great leading difference in their etiology, by which the two diseases may

(b) It was brought forward by a Dr. Henderson, known less as a practical Surgeon than as an ingenious speculator. He was the original projector of the Agra Bank.

(c) Long ago, Aretæus observed that cholera prevailed most in summer, less in late autumn, little in spring, and least in winter.

be discriminated? Are they identical, as some have supposed? Few who have had the opportunity of treating both diseases will be of that opinion. Then in what does the difference consist? Many will reply—Cholera nostras originates spontaneously every season, whereas, few writers of late years admit that cholera Indica can arise spontaneously; still, opinion is not entirely agreed on this subject. Others may say—The Indian disease is contagious, the other is not; but opinion has varied in this respect about both diseases, and cholera nostras has occasionally been considered contagious, while until of late years cholera Indica has most generally been considered non-contagious.

But many will say further—Cholera Indica is the result of a specific poison present in the evacuations of the one disease, and which is absent in the other. Then, in this case, we must be prepared to admit that almost identical effects occur in the absence of a specific poison and in its presence. But supposing it granted that the specific poison of cholera Indica has been discovered, it has been so only after long and protracted research, and who shall say that there may not be a specific poison of cholera nostras (and the idea that there is one is not new) still to be discovered?

Further slighter differences, and to which exception can scarcely be taken, are—cholera Indica is somewhat less dependent on temperature and on season; it attaches itself more to ships, undoubtedly possesses a greater power of spreading, and periodically visits Europe and other parts of the globe. Cholera nostras, to use figurative language, does not become intensely vitalised in the absence of the Indian disease. Thus, cholera nostras has again prevailed at Metz, with everything to intensify its violence; yet we have not seen cholera Indica there, simply, I believe, because cholera Indica was not in Europe as it was when the German armies were attacked by it in 1866. Fortunately, the disease has not been nearer us this year than Kertsch or St. Petersburg.

For the present, I fear that we can only say that the diseases differ in their intensity; and this is a very vague difference to establish. Men of the greatest intelligence in this country tell us that they have treated cases of cholera nostras, which they would have considered to be cholera Indica had that disease been present in Europe at the time. Still, cholera Indica is essentially a very fatal disease, while cholera nostras is usually a mild affection, and is seldom fatal, although it was called *atrocissimus et peracutus*, and has undoubtedly sometimes killed in from eight to twenty-four hours.

Until we learn more of the essential difference between the two diseases, I fear I can offer nothing more satisfactory to you, by way of conclusion, than a few very general hints.

As cholera nostras becomes intensified when it becomes epidemic, and as a case of mild cholera nostras is widely different from an acute one, why, under certain favouring circumstances, might it not be intensified into cholera Indica? We have some analogies. We know that dysentery is not commonly epidemic, yet at times it becomes so, and "attacks not only individuals, but whole provinces, by contagion," and is believed to be contagious through the medium of the alvine dejections, as is thought by many, of it, as of typhoid fever and of cholera. Or, to turn to acute pestilences,—many writers have believed that plague is only an intensified typhus; others have believed yellow fever to be an intensified form of bilious remittent; and there are many curious points of resemblance between yellow fever and cholera—the readiness with which they are carried by ships; their frequent importation into Europe, yet their not having effected a permanent settlement; their sensitiveness to cold—especially that of the former disease.

But I feel myself approaching the bounds of an illimitable subject, on which I cannot enter, and I must recollect that my object has solely been to present a few facts, and offer a few hints, respecting the analogies of two forms of cholera. It is a subject which, of late years, has scarcely received the attention which it deserves from the students of cholera Indica.

A consideration of this subject, I would venture to say, offers an excellent safeguard against hasty generalisation. We are too ready to accept possible truths as positive ones; to suppose that certain local circumstances occasionally accompanying cholera afford a complete key to the causation of the disease. We are too apt to view facts only by the light of a particular theory.

HANDSOME DONATION.—The Medical library of the late Dr. Biddoes, of Shrewsbury, consisting of 150 volumes of modern works, has been presented by his widow to the Liverpool School of Medicine.

ABDOMINAL NEUROSES.

By EDWARD L. FENN, M.B.,
Formerly House-Physician to King's College Hospital.

WHEN dealing with a class of maladies so essentially indefinable, because so variable in their symptomatology and pathology, as are many of the so-called functional nervous disorders, we shall find that our powers of recognition and our means of curing are more likely to be increased by a judicious record of authentic cases than by any abstract description of functional maladies *per se*. As a contribution to this collection, I append the following cases, which have been lately under my care:—

The first is that of a man, W. B., aged 56, a plumber and painter by trade, who gives the following history:—His father and mother both lived to an advanced age; his only sister died when young, in a fit; two of his paternal aunts were deaf and dumb; he himself was always of a strongly marked nervous disposition, but otherwise has generally enjoyed good health. Early in January, 1860, the illness to which I wish to draw especial attention first showed itself. He was engaged at this time, one bitterly cold day, painting outside a house, when he felt, as he describes, the cold strike through him; he was obliged to leave off work, and, whilst driving homewards, was seized with severe pain in his body, and he vomited several times; he was confined to his house for several days, when the attack passed off, and he felt no more of the symptoms until the following January, when he had a second similar attack, which was treated in much the same way as the first—viz., by rhubarb, ammonia, and soda in peppermint water. In 1862 he had two attacks. The nature of all these seizures was the same: there was pain in the abdomen (chiefly in the right side, extending towards the umbilicus), vomiting, flatulence, and nervous depression. In January, 1863, he was ill again, and there was a second attack in May of that year; during the year 1864, he was ill in the same way almost continuously from January to July; the drugs employed during this period were chiefly soda, bismuth, rhubarb, ammonia, valerian, and nux vomica. After this long illness he was left very weak and unable to do much work, though he had no fresh attack until March, 1865, followed by one in July, and a third in October, all slight in duration. January, 1866, ushered in another series of attacks, which lasted until the end of the following July. The vomited matters were, during the whole of this period, very considerable in quantity, containing the sarcinæ ventriculi. I saw him once in this year for the first time, when he certainly bore all the aspect of a man suffering from stricture of the alimentary canal. The treatment had been much the same as in former attacks, with the addition of sulphite of soda and creosote. He rallied at the end of July, and was free from the seizures until January, 1867, when he had a slight attack, and another in August of the same year. He had no return after this that called for Medical assistance until November, 1868; but from this time until September, 1869, he was seldom free for many days together from either the flatulence, pain, or sickness. His condition on September 1, 1869, was as follows:—Though always a spare man, he was now considerably emaciated, countenance anxious and expressive of pain, spirits very depressed, skin rough and dry, pulse 70, tongue covered with a slight white fur, bowels costive, urine pale sherry coloured, contained no albumen. He stated that he was seldom free from pain in his body for many consecutive hours; the attacks usually began with a feeling of fulness and flatulent distension of the abdomen, followed or accompanied by an almost unbearable pain, of a burning or screwing character, situated chiefly in the right lumbar and umbilical regions; it was only relieved by his freely vomiting, which he often did, half filling a washhand-basin with a brownish-coloured fluid, with a yeasty froth on the surface containing sarcinæ, and occasionally mixed with a little blood. As far as he could tell, what he eat or drank exerted but little influence on the disorder, but he had as a matter of prejudice kept himself on a very restricted diet. When free from the pain he could bear the body to be handled, and nothing abnormal could be felt.

Taking into consideration that the man's illness extended over a period of more than eight years, and the complete intermissions which marked its course, also the absence of any sign of positive organic disease, I advised that it should be treated as a case of neuralgia, and ordered him, accordingly, a liberal diet, with full doses of iron, quinine, and strychnia. After a week of this treatment he had a slight attack, which varied, however, from all previous seizures in the absence of pain; the flatulence, the vomiting, and the state of general depression were present,

but no pain worth mentioning, and this has been his last attack. He continued the medicine for a fortnight longer, when he resumed his business with more strength and spirit than he has been able to display for several years. He tells me that the only precaution he has to take is to guard against cold, which seems to depress him more than anything else.

Upon reviewing this case one feels that throughout its whole progress too much regard was paid to the alleviation of individual symptoms, and too little care was taken to trace them to their original cause. Undoubtedly the following facts in the case ought to have exerted greater influence on the judgment of those who were called upon to treat it:—(*a*) The constitutionally nervous temperament of the man; (*b*) the sudden onset of the disorder in the first place, under the apparent influence of extreme cold; (*c*) the complete intermissions which characterised the progress of the disease; (*d*) the absence of all physical signs of organic disease.

Dr. Handfield Jones records a case in his work on Functional Nervous Disorders which resembles the above in several respects. It is the case of a man, J. W., aged 38, who had been ill for six months, suffering with attacks of flatulence, pain, and vomiting; the vomited matters here, also, contained sarcinæ. "Generally towards night flatulence would come on to a considerable extent, and be followed sooner or later by vomiting. . . The gastro-intestinal disorder was evidently no ordinary indigestion; it seemed to be to a great extent independent of taking food. None would occur for several days, and then an outburst would take place. It was in this respect somewhat like the group of symptoms produced by obstruction of the pylorus, but the sequel negatived the idea that there was any such organic lesion." (P. 432.) Regarding the malady as the result of failure of power, Dr. Jones effected a cure by the aid of quinine, strychnia, and opium. At page 418 of the same work is recorded the case of a woman, aged 60, who had been ill for two or three years, suffering with pain commencing under the right ribs, which passed to the middle of the abdomen and epigastrium, and backwards to the interscapular space ("a dreadful burning pain it is"), attended with much flatulence and nausea. Tonic and anti-rheumatic remedies restored her to health.

We proceed next to relate two cases in which the nerves supplying portions of the urinary tract appeared to be affected. The first is that of a woman, J. C., aged 45; she came under notice first in May, 1867, when she stated that, with the exception of occasional attacks of headache, she had enjoyed good health until the May previous, when she began to suffer from seizures of violent pain in the left loin, attended with rigors, vomiting, profuse sweating, and general depression and faintness. The urine was natural, and never contained any blood. She seldom went longer than a fortnight without an attack, each seizure usually lasting about twelve hours. She had been treated for renal calculus, and had taken large quantities of opium. Under the use of quinine she rapidly recovered, and has had no relapse since. It was undoubtedly a case of neuralgia of probably malarial origin.

The second case is that of a young man, aged 18, a carpenter and sawyer, who applied to my friend, Dr. S., in February, 1868, when he stated that he had been suffering at intervals for twelve months past from pain in the right loin, and sometimes during micturition. A month before consulting Dr. S. he had been laid up with more severe pain than usual in his right loin, passing down the groin and along the urethra, occasionally extending over the upper part of the inside of the thigh. The urine sometimes contained blood. When Dr. S. saw him, on the morning of February 27, the urine was smoky, but later in the day what was passed was quite clear. It remained so for two days, when the blood reappeared. The pain, which continued still, was often very acute, coming on in paroxysms which lasted from half an hour to an hour; then, after an hour or two's intermission, it returned again. Sometimes, when the pain was very severe, it would attack the left loin, and the left testicle was sometimes retracted. When in pain he always sat with his thigh flexed and body bent forward. If in bed, he got most ease by lying on his face. On February 28 the urine was examined, and was found to contain albumen, blood corpuscles in abundance, no casts, no crystals. Two days later, when free from blood, it contained no albumen, and was healthy in every respect. The pain continuing in spite of all treatment, a sound was passed into the bladder, but no stone could be found. The attack lasted altogether a month, when he returned to his work, and enjoyed uninterrupted good health for eighteen months. At this time—viz., in October, 1869—he applied to me for, as he described it, a dreadful, dull, aching pain in the right loin and just above the iliac crest, extending downwards along the groin into the right testicle and along the penis, also along the front and inside of the upper third of the thigh. There was pain occasionally, after passing water, in the glans penis. The pain was worse at night, and, being unable to lie in bed, he passed most of the nights leaning his back against the wall or bed-post, which pressure seemed to give a little relief. The pain was, he said, exactly similar to that which he had had in all his previous attacks; the urine was, however, at present quite clear and healthy. The patient expressed a wish that the blood would appear, as he said in his former attacks he had always felt a certain amount of relief from the pain as soon as his water became bloody.

Taking into consideration the history of his former attacks, and the long interval of perfect health which had followed the last (although he was daily engaged in the most trying and laborious work of sawing), and the natural condition of his urine, I concluded that I had to deal with a case of neuralgia, and ordered him full doses of quinine, but, contrary to my expectation, without any benefit, the pain continuing as bad as ever. I then injected under the skin of the arm one-fourth of a grain of morphia, which gave him almost complete relief in half an hour's time. There was a slight relapse on the following day, which was at once relieved by the injection of one-sixth of a grain of morphia. To make sure, the injection was repeated on the two following nights; but there was no relapse, and he has continued at his work ever since, without any feeling of discomfort or tenderness.

Here there are two cases of nephralgia, in both of which the existence of a stone was at one time looked upon as probable—indeed, in the case of the young man it was regarded almost as a certainty; but, on reviewing the whole history of these cases, we must, I think, be led to the conclusion that the existence of a stone was, to say the least, very doubtful in either case. Although in the woman's case there was severe pain in the region of one kidney, with shiverings, vomiting, and sweating, yet the urine was quite unaffected, and the attacks periodic and, as seen in the issue, yielding readily to quinine, which three facts taken together are undoubtedly sufficient to upset any such theory, and to confirm, on the other hand, the opinion that it was a case of neuralgia the result of malaria.

In the case of the young man the symptoms of stone were much more urgent, though still very incomplete. There was characteristic pain and hæmaturia, but no syncope, vomiting, or sweating. Then, again, the illness had extended over a period of two years and a half, with, it is true, long intervals of freedom from all suffering; and yet at no period of this time do we find any signs of disorganisation going on at any part of the urinary apparatus. If there was a stone (or, I should say, if there is, for no stone has ever been passed by him), where is it? Not in the bladder, for the examination with the sound excluded this viscus; nor in the ureter, for it would be impossible for a stone to be impacted here without causing more or less inflammation, the products of which would appear in the urine, where nothing of the sort was ever found. Is it in the kidney then? Many objections to this hypothesis must occur to the minds of everyone; amongst them I would suggest the following:—(*a*) To have caused so much pain and hæmorrhage, the stone must have been moveable; yet we find that, in spite of the great exertions he was called upon to make in his work, he had long intervals of perfect ease. (*b*) Would it be possible for a stone to exist, and yet no trace of crystals be found in the urine? (*c*) Could a stone be so moveable as this must have been, and never stir up any inflammatory changes in the kidney? No pus ever appeared in the urine. (*d*) If the hæmorrhage be dependent on irritation, produced by movements of the stone, should we not, *à priori*, expect the pain to be greater at those times?—whereas, as a matter of fact, just the opposite condition was found to occur, the appearance of blood in the urine being contemporaneous with relief to his pain. (*e*) Directly the pain was relieved by the morphia all tenderness disappeared from the loin. Would this have been the case if a stone was present? or would (*f*), lastly, the effect of the morphia have been so speedily and permanently successful.

In conclusion, I believe that this case can only find a pathological explanation in some derangement of the renal nerve plexus, causing, in addition to the pain, a paretic condition of the vaso-motor nerve fibres, and so permitting a blood stasis to take place in the kidney, which found relief in an occasional hæmorrhage. The importance of this case cannot be exaggerated either in a diagnostic or therapeutical point of view. The two Surgeons who saw him in February, 1868,

after repeated examinations, could come to no other conclusion than that it was a case of renal calculus; and yet, undoubtedly, the sequel of the case must negative any such opinion. Secondly, it is important, therapeutically, as adding one more instance to the now numerous list where immediate and striking results have followed the hypodermic use of remedies.

Nayland.

OBSTRUCTION OF THE BOWELS OF TWENTY-ONE OR TWENTY-TWO DAYS' DURATION—FÆCAL VOMITING.

By J. HANCOCKE WATHEN, L.R.C.P. Edin., M.R.C.S. Eng.

The treatment of obstruction of the bowel has of late undergone considerable change, ranging from that by purgatives down to the opium and belladonna treatment of the present day. The following is, I think, a good example of the effect of opium in this class of case. As far as the obstruction was concerned, the treatment was successful; but, from the age of the patient, together with inefficient nursing, she eventually succumbed:—

Mary W., aged 77 years, sought relief in January, 1870. She stated she had not had a motion for at least a week, up to which time her bowels had been acting naturally. The previous day two doses of castor oil were taken without any effect. I found her with a quick, wiry pulse, coated tongue, abdomen tense and painful, no tumour to be detected. Ordered half-grain doses of powdered opium, with one grain of calomel, every two hours; turpentine enemata were administered, but were of little use, as they could not be retained for a moment. The calomel and opium were continued until the second day, when the former was omitted and opium alone depended on. About the twelfth day from the alleged last evacuation, fæcal vomiting commenced, which continued until the twenty-first day, when there was a slight passage of fæcal matter per anum. The opium had been increased to three-quarters of a grain; one grain was now ordered every two hours. The patient was at the lowest verge of exhaustion—indeed, I did not think she could survive much longer. The following morning she had a free fæcal motion, consisting first of hardened scybala, followed by liquid matter. The opium seems to have been a direct agent in producing this result, as her nurse, thinking if one pill would be of service, two would be of greater service still, gave her two pills at a dose. These, containing two grains of opium, appear to have checked all action in the upper segment of the intestine, allowing the inferior to bring down the obstructing body. Stercoraceous vomiting ceased, the bowels took on natural action, and the patient appeared to be in a fair way of recovering, after a most severe and distressing attack, but she sank in three weeks. I firmly believe that, had her hygienic surroundings been more favourable, she would eventually have rallied.

Fishguard.

PERCHLORIDE OF IRON IN PARALYSIS OF THE BLADDER.

By C. H. WATTS PARKINSON, M.R.C.S. Lond.

On January 24, 1870, I was sent for to attend W. B., aged 74, a master blacksmith. He has for the last few years been subject to attacks of retention of urine, which have, however, hitherto been relieved by warm baths, etc., without the use of the catheter.

On my arrival, I found him suffering greatly from retention of urine, which had not been relieved by the means before used. I found the prostate enlarged, but passed a full-sized prostatic catheter, and drew off a large quantity of urine without much difficulty.

The next morning I was again obliged to pass the catheter; and the bowels being confined, I ordered a simple aperient.

January 30.—The catheter has been passed twice daily. There is stillicidium urinæ, but no power of passing water voluntarily, and the urethra is becoming irritable. Bowels very constipated, requiring frequent aperients.

February 5.—The old man is getting in a low, typhoid state. Tongue dry and brown. Pulse very feeble. A considerable amount of hæmorrhage follows each introduction of the instrument. Urine loaded with phosphates and lithates, with mucus, epithelium, and some decomposed blood. Not the sligtest attempt at contraction of the bladder.

6th.—I drew off the urine, as usual, morning and evening, and then injected six ounces of a weak solution of tincture of iron, which I retained in the bladder for about half a minute.

7th (evening).—There is a slight contraction of the bladder after the injection this evening.

8th (evening).—The bladder contracts well on the instrument after the injection, and he has passed small quantities of urine occasionally during the day voluntarily, and there has been no overflow.

9th (morning).—Has made water during the night. Bladder moderately empty. Urine getting better.

From this time he continued to improve, until February 18, when he could pass water better than he had done for some time.

December 12.—Has had no attack of retention since, and is able to pass water freely, and is better than he has been for some years, and able to follow his usual occupation.

There could be no doubt that the injection of tincture of iron effected the cure in this case, as, although the usual medicines were prescribed at the commencement, nothing more than a simple aperient was given after February 5.

LITHOTOMY—REMOVAL OF A VERY LARGE CALCULUS.

By ALFRED WRIGHT, M.R.C.S.

G. S., aged 62, an *employé* of the Great Eastern Railway, came under my notice in the beginning of May. He had suffered from symptoms of stone for the past few years, though only occasionally to such an extent as to incapacitate him from following his employment. On these occasions he had hitherto always found relief from Medical treatment, and several times had passed a small calculus.

Fourteen years ago, he was lithotomised by Mr. Curling in the London Hospital. Lately, his symptoms had been much more acute and his disablement complete. His face bore the appearance of his having undergone much pain, and there was great emaciation of body, but his appetite was good, and he expressed himself as "feeling well in health." Urine clear, sp. gr. 1015. On sounding him, a calculus was very readily detected, and supposed to be of large size. Under the influence of chloroform an attempt was made to crush the stone, but it was found, on introducing the lithotrite, to be too large for any good to result from such an operation, and it was therefore resolved to perform lithotomy on a subsequent occasion.

May 12.—The attempt to lithotrise was followed by a considerable amount of vesical irritation, which, however, soon subsided. Chloroform being administered, the ordinary lateral operation was performed, following the line of cicatrix left by the former operation. There was some little difficulty in hitting the groove of the staff, owing to the density of the structures involved in the old cicatrix, but this over, the bladder was readily reached and the stone grasped by the forceps. Owing to the large size of the stone, its extraction was extremely tedious, but it was ultimately effected without any further use of the knife. The tube was then introduced into the bladder and the patient put to bed. On examining the stone it was found to be a very formidable one in appearance; it was $2\frac{1}{2}$ inches in length, $1\frac{3}{8}$ inches in breadth, and weighed 4 oz. It was of a flattened oval form, with a pyramid-shaped portion projecting from the middle of one of its flattened surfaces, the summit of which was uneven; the whole appearance of the stone suggesting the probability of its having occupied the lower portion of the bladder, the conical part projecting into the neck of the organ.

13th.—Passed a good night, and is comfortable this morning. Urine flows freely through the tube; skin cool; tongue rather dry; pulse 104. Ordered beef-tea, milk, and 2 oz. of brandy.

14th.—No tenderness; pulse 90; tongue moist. Tube removed. Ordered wine, 4 oz.

15th.—Doing well; pulse 80.

17th.—Doing well. Ordered a mutton chop.

June 10.—Has gone on uninterruptedly well since last date, and is much improved in appearance. The wound is cleaning. No urine has yet passed per urethram until to-day, when a few drops came.

11th.—About a tablespoonful of urine has passed.

July 20.—Has gone on well since last date; the wound is now healed.

August 2.—Had a slight attack of orchitis a few days ago, which has now subsided.

29th.—The patient resumed work to-day; he now passes a good stream of urine without pain, and his health is perfectly restored.

Romford.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

ACUTE SUPPURATIVE INFLAMMATION OF KNEE-JOINT—JOINT OPENED AND TREATED BY THE CARBOLIC ACID METHOD—RESTORATION OF JOINT.

(Under the care of Mr. MARSHALL.)

The following case illustrates well the happy results which may attend the application of Lister's treatment with carbolic acid to suppurating joints. We are indebted to Mr. Rushton Parker, the House Surgeon, for access to the notes of the case:—

John S., aged 42, a labourer, was admitted under the care of Mr. Marshall on April 12, 1869, with acute inflammation of the left knee-joint. The report in the case-book of the state on admission is as follows:—"Face expressive of great suffering and anxiety. Hands tremulous. Great prostration. Temperature, 102° Fahr. Pulse weak and jerking. Tongue furred, dry, and brown. No appetite; bowels confined; great thirst. Eyes both greatly congested, sclerotic, as well as conjunctiva being of a vivid red colour. Some photophobia. Corneal opacity, traversed by dilated and tortuous vessels. Some granular condition of conjunctiva. Left leg is œdematous from the ankle to the hip, the œdema being more marked below the knee. The knee itself is greatly swollen, œdematous, not red, but hotter than the opposite knee, although not notably hotter than the rest of the same limb. The swelling is found to be due to effusion into the cavity of the joint and in the cellular tissue around it. A grooved needle introduced into the joint allows the escape of unhealthy-looking pus. There is a very tight urethral stricture, just admitting a No. 1 catheter, and the urethra contains many false passages, catheterism being attended with free bleeding."

On the following day (April 13), the man was placed under chloroform, and Mr. Marshall opened the knee-joint by a longitudinal incision on the inner side, and let out a large quantity of brownish pus. All the same precautions were used as are prescribed by Professor Lister in the treatment of abscesses with carbolic acid, and the limb was arranged on a back-splint with foot-piece.

It was noted next day that the patient was much relieved; less feverish. No fresh effusion in the joint, and only a slight sero-purulent discharge escaping from under the dressings, but there seemed to be more œdema of the limb generally. The temperature had gone down to 101°. Free support was ordered, with brandy ʒxij., four eggs, and beer.

The man continued to improve for a week, complaining much less of pain in the knee, but more of pain in the outer ankle and outer part of the thigh, at which places the œdema had greatly increased. A week later (April 27) a large, deep-seated abscess was discovered in the upper and outer part of the thigh, which, being opened under carbolic acid dressings, discharged a quantity of very fetid grumous pus. The abscess extended down the thigh some inches, towards the knee. The patient was much relieved by the abscess being opened, and a free discharge of offensive pus lasted for some days, the knee meanwhile remaining quite quiet. Soon after the abscess in the thigh discharged, however, another smaller one, but containing similar fetid brown matter, formed in the right side of the scrotum, and burst on April 30. By this time the knee was perfectly quiet, no fresh suppuration having followed the opening of the joint, and the patella was freely movable, but the tibia and femur seemed to be getting fixed. The abscess in the thigh continued to discharge freely. It was syringed regularly with carbolic acid lotion, dressed with carbolic oil, and a poultice kept over all.

On May 10, another abscess seemed to be pointing in the perinæum, and Mr. Marshall cut into it, but no pus escaped, although the patient felt much relieved by the incision. The other wounds were making good progress meanwhile.

On May 25, the following note was made:—"To-day the splint was taken off the leg. The left knee is still rather bigger than the opposite one, but this is due to œdema of the surface, and not to effusion into the joint. The patella moves freely; the motions of flexion and extension are still preserved, although impaired. There is no pain on moving the joint or patella, nor any grating. The abscesses in the thigh and scrotum are doing very well, and the patient is generally much improved." The limb was fixed in a leathern splint, reaching from the middle of thigh well below the knee.

By June 5, the man was able to sit up in a chair, and the wounds in thigh and perinæum were fast healing, dressed with sulphate of zinc lotion. A week later he essayed to walk on crutches, but the sound limb was still too weak to support him, and he confined himself to exercise in a wheel-chair.

During some weeks after this the man fell back into a very weak condition, in which he was forced to keep his bed, taking mineral acids and bark, and continuing his twelve ounces of brandy, with six eggs, bottled stout, meat, and other nourishing diet; but by July 9 he had gradually returned to his former state, and so far recovered as to be able to diminish greatly the stimulants, and resume his chair exercise. Meanwhile, sloughs had formed on the heel, and where the splint pressed somewhat over the head of the fibula, and delayed convalescence. It was not until September that he was able to use his crutches, and he was then sent to the All Saints' Convalescent Hospital at Eastbourne, where he rapidly recovered, the joint movements being eventually fairly restored.

INJURY TO THE URETHRA IN A CHILD THE SUBJECT OF HÆMORRHAGIC DIATHESIS—FREQUENT AND COPIOUS LOSSES OF BLOOD BY URETHRA—RECOVERY.

(Under the care of Mr. Marshall.)

The account of this case, like the last, is taken from notes kindly supplied by Mr. R. Parker.

W. G., aged 12, was admitted under Mr. Marshall's care on May 31, 1869, with this history:—Whilst climbing over a fence, a week before, the boy slipped, and fell astride the rails. He felt some pain in the perineum at the time, and some blood escaped by the urethra. The pain was slight, and passed off in five minutes, and on the first occasion of his passing water he noticed nothing special amiss, but next morning he felt a burning pain in the urethra during micturition, and then perceived that he was passing blood with his urine, and that the blood continued to flow after the bladder felt empty. A Surgeon was sent for, who arrested the bleeding by tying up the penis. Next morning, however, after a long walk in the evening, the boy again felt the pain during micturition, and again blood began to escape freely in clots and in stream. The same Surgeon was sent for, and he again stopped the flow by pressure; but as the boy did not lie up, the same symptoms returned in a day or two, and now the Surgeon dropped something on the meatus as well as applying pressure to the canal, and the bleeding did not recur for three days. Then, however, blood again began to flow, and the boy was brought at once to the Hospital. As by this time the bleeding had stopped, he returned home, but the next day the hæmorrhage returned, and he was at once admitted, and Mr. Marshall sent for. On his arrival Mr. Marshall examined the boy, expressed his opinion that the urethra was ruptured on the right side, and he tied in a No. 6 gum-elastic catheter, the boy complaining of pain and tenderness in the perineum during the passage of the instrument. The patient was ordered cold diet, consisting of milk, eggs, beef-tea, and brandy ʒij. Ice was applied to the penis, and a mixture containing acid gall., gr. x., and acid sulph. dil., ɱx., taken every four hours.

The bleeding ceased awhile, but next evening the House-Surgeon was called to the child, and found blood escaping by the side of the catheter. Three or four ounces had already escaped, and the urine which flowed subsequently was stained with blood. Ice applied to the perineum and along the urethra checked the bleeding for a time, but it recurred twice in the evening, and the patient became much blanched from the loss of blood, with a very feeble pulse of 150. Brandy ʒj. every half hour was ordered, and all bleeding checked by ice pressed against the penis. Next day (June 2) the boy complained of much pain in the region of the bladder, and of great desire to pass water. Only about ʒij. of grumous blood could be got through the catheter, however, when, after much straining, some clots were squeezed out by the side of the instrument, and were followed by a gush of urine. As the stream of urine ceased, pure blood began to flow with an arterial jerk, and was only arrested by the pressure of ice as

before. Mr. Marshall was now sent for, and he removed the catheter, which was plugged and coated with clotted blood, and introduced a No. 8 instrument, which was tied in, but which also soon became plugged with clots, and permitted the escape of urine and blood by its side. Ice was again applied, and tinct. opii. mxv. given at once, with tinct. ferri. perchlor. mxv. every four hours. At 10.30 p.m. Mr. Marshall came again, and no bleeding having returned, the bladder was well washed out with iced water, the catheter removed, and a long bladder of ice applied to the perineum and penis.

Five days later (June 7), the bleeding not having returned meanwhile, the ice applications were discontinued, and by this time, also, by means of frequent stimulation and the free administration of the essence of beef, etc., the boy was getting some return of colour to the cheeks, and expressed himself as feeling perfectly well.

On June 9, as the patient was turning over on his face, he felt a slight return of pain in the perineum, and about an ounce of blood escaped from the urethra. He was at once seen by the House-Surgeon, who caused him to make water standing, during which a small clot escaped. His meat was ordered to be taken cold at dinner, and ice re-applied as before.

Two days later the bleeding returned, at first very slightly, but soon afterwards so profusely that the House-Surgeon injected a solution of tannin (grs. v. to ʒi.) into the urethra, and pressed ice upon the penis, before it was arrested. But now all the previous symptoms returned as sharply as ever, and similar measures were employed to combat them, opium and brandy being freely given, a No. 9 catheter tied in, and ice applied outside the urethra.

It was not until June 22 (eleven days later) that Mr. Marshall ventured to discontinue the catheter, but the bleeding never recurred, and health being fully established, the boy left the Hospital on June 29.

The interesting feature about this case is that the child was the subject of hæmorrhagic diathesis, and that it appeared from the family history that an uncle, and either a brother or sister, had died of hæmorrhage.

ROYAL INFIRMARY, EDINBURGH.

INFLAMED AND CONTRACTED BLADDER, THE RESULT OF EXPOSURE TO COLD—PHYSICAL EXAMINATION—CURE.

(Under the care of Dr. J. MATTHEWS DUNCAN.)
[Reported by Dr. J. R. HARDIE.]

M. B., aged 42, unmarried, admitted to Ward 16, Royal Infirmary, November 1, 1870.

Complaints.—Pain in the loins, occasionally shooting down the thigh and back of leg on micturition, and in urethra, in which last seat it is easier for a short time after making water, but returns and increases in intensity until patient again micturates. The patient also complains of inability to retain her urine for more than five minutes at a time.

History.—Patient is a farm labourer, her employment being carried on out of doors in all kinds of weather. She enjoyed good health until thirteen months ago, when, after a hard day's work in the rain, the above-mentioned symptoms appeared; they have increased in intensity up to the present time.

Physical Examination.—On passing a sound the bladder is found to be tender, unnaturally resisting and contracted, measuring only 3½ inches from the orifice of the urethra to the fundus.

Urine.—Light coloured, with a mucous deposit. Reaction neutral. Sp. gr. 1018. Albumen $\frac{1}{10}$th. No tube casts.

Treatment.—Patient was ordered to have a warm hip-bath at bedtime, saline laxatives, morphia suppositories, a seton inserted over the symphysis pubis, and farinaceous diet, together with the following:—℞. Acid. nit. hydrochlor. dil. ʒij., tinct. hyos. ʒvj., ext. pareir. gr. xl., inf. pareir. ʒxij., sig. ʒj. four times a day.

Progress of Case.—November 20.—B. says she feels better, being able to retain her urine for about one hour, suffering less pain when voiding it. She sleeps better at night.

26th.—Patient expresses herself as being much better. She says that she can retain her urine for more than an hour and a half, suffers no pain when making water, and very little after it. On examination, the bladder was found to be softer and less tender than at last report, and to measure five inches. This improvement on physical examination fully corroborates patient's own statement as to her feeling of relief from the painful symptoms, etc.

Remarks.—On alluding to this case, Dr. Matthews Duncan observed that at the present time the diagnosis of diseases of the bladder was in an unsatisfactory state. The only method of putting it on a rational basis was by a physical examination of the organ by means of the sound. Almost nothing had been done in this direction as yet; but its employment yielded precise and valuable information. In this woman we now know the size of the bladder, its sensitiveness, and feeling of resistance. In a healthy vesical organ the sound can be passed to the extent of about six inches, measuring from the orifice of the urethra, without the patient exhibiting signs of discomfort; its walls also are soft, and yielding somewhat to slight pressure from the sound. In the case before us the sound only enters three and a half inches; great pain is experienced by the patient on passing it and when it is in the bladder; and the walls of that organ are hard and resisting. These symptoms indicate an inflamed and contracted state of the bladder.

PROCIDENTIA UTERI—OPERATION—USE OF PERINEAL PAD—THE VALUE OF PESSARIES—ORIGIN OF UTERINE ULCERATIONS IN SUCH CASES.

H. S., aged 32, married, admitted to Dr. Matthews Duncan's Ward, Royal Infirmary, Edinburgh, November 4, 1870.

Complaints.—Pain in the hypogastrium, and falling down of the womb. The pain in the belly is felt only when the uterus is prolapsed.

History.—Since the birth of her only child, three years ago, patient has never enjoyed good health. A few months after delivery she began to be troubled with bearing down; this gradually increased until about two years ago, when her womb came down outside the vulva. For the last eight months the uterus has continued to fall down between her thighs whenever she assumes the erect posture. During the last two years patient's monthly periods have been irregular, and she has for that time been subject to a white discharge. Pessaries of various shapes and sizes have been used in attempting to support the womb, but with unvarying failure.

Physical Examination.—The neck of the uterus projects considerably beyond the vulva; it is hypertrophied; the fundus uteri is scarcely displaced. The uterine sound enters five inches. Patches which exhibit some of the appearances of ulceration are to be seen on the mucous membrane of the protruding cervix uteri; some of these are covered with a greyish-white pellicle. An ovary is felt at the lowest part of the recto-vaginal pouch.

Treatment.—The procident uterus was returned, and patient was ordered to lie still in bed. The apparently ulcerated patches gradually disappeared, and on the 14th none were visible, when Dr. Matthews Duncan denuded the edges of the labia on a level with the meatus urinarius, and brought them together by means of metallic sutures.

Progress of the Case.—November 23: The stitches were removed to-day; the parts operated on were found to be firmly united. Patient's bowels, which had been constipated since the operation, were opened by medicine. A T bandage, provided with a perineal strap and pad, has been procured for her, to be used when the condition of the parts will allow of it.

Remarks.—In proposing to elongate the perineum, Dr. Duncan observed that that operation alone would be useful only for a short time; the uterus would certainly distend the perineum, and ultimately become procident as before; but by means of a T bandage, with a perineal pad so adjusted that the perineum is supported by it, the object sought for is generally attained. When these means are unsuccessful, a pessary may be used in addition. In minor degrees of descent Dr. Duncan said that the great rule for the use of pessaries was to use them as little as possible, because of their tendency to distend and irritate the vagina; attention to the general health, cold bathing, and a mildly astringent injection being what he recommended in these cases. When forced to have recourse to pessaries, the disc and stem, and a modification of Hodge's, made of block tin, were the forms he preferred. In alluding to what appeared to be ulcerations on the procident uterus, he pointed out that the notion ascribing them as due to urinary irrigation or friction of the thighs was incorrect, because these patches were situated on parts inaccessible to either influence. Dr. Duncan maintains that they are not ulcerations at all, but due to a kind of diphtheritic inflammation—a view which is verified by watching them after they are returned and retained in the vagina.

THE Town Council of Edinburgh have purchased the Canongate Poor-house for £1600, with the intention of converting it into a fever Infirmary.

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Medical Times and Gazette.

SATURDAY, DECEMBER 24, 1870.

THE SIEGE OF PARIS.

The year 1870 draws to its close, leaving uncompleted the war which now for nearly six months has enthralled the attention of the civilised world, and has set into motion influences and forces whose ultimate tendency is still enveloped by the clouds and darkness which surround futurity. The siege of Paris, the most important incident in the great struggle between France and the German invaders, whom the rash policy of her now captive Emperor challenged to the combat, has for three months been carried on, and is still, by all accounts, far from the termination which the besiegers desire. Famine, the gannt ally in whom the German strategists put so much confidence, has disappointed them by the slowness of her progress in carrying out the grim work assigned to her. The pressure of necessity has excited among the besieged a spirit of patriotic endurance and a fertility of resource which enable them to resist, not only passively, but in vigorous sorties, and in the extension and strengthening of their defences and outworks, with a view to further offensive operations.

Small as has been the supply of fresh animal food for several weeks past, there is yet good reason to believe that the city still contains a stock of salt meat, flour, coffee, wine, and other stores which will enable the inhabitants to hold out for a much longer period than was considered at all likely in the earlier stages of the siege. Scurvy, the invariable result of scarcity and want of variety in food, particularly of the vegetable element, is probably being averted by the ingenious foresight of M. Decaisne, Professor of Agriculture at the Museum, on whose suggestion a system of very rapid production of vegetables, by artificial means, is said to have been established. Pieces of waste land close to the walls have been richly manured, and vegetables are being cultivated upon them. By this rapid means of production it is said that the stem, leaves, and root all become equally tender and available for food. There can be no doubt that if it be possible at this season to raise vegetables in a quantity at all adequate to the requirements of the besieged, a most essential means of preserving the public health shall have been attained.

Meanwhile, the delay tells daily against the besiegers, and calls upon them for sacrifices which tax to the utmost the "staying powers" of the army—among whom, as we have heard on unquestionable authority, the rate of sickness and mortality for some weeks past has been greater than at any time in our army during the Crimean war—as well as the public spirit of their country. The army of the Loire, although defeated, has not been exterminated, but now exists in two portions, one under General Chanzy, and the other under General Bourbaki, and entirely engages the attention of the army of Prince Frederick Charles, which is said to require rest after the combats on the Loire, and to be encumbered with immense numbers of wounded.

The departure from Paris, by balloon, of an astronomer appointed by the French Government to observe the solar eclipse of the 22nd inst. in Algeria, as reported by some of our daily contemporaries, will, if true, be considered one of the most remarkable incidents of the siege. Attention to such matters during the supreme exigencies of the time is certainly incompatible with the idea of surrender, and is highly honourable to the present rulers of the French nation.

A MERRY CHRISTMAS!

DR. OLIVER WENDELL HOLMES'S POEM OF "RIP VAN WINKLE, JUN., M.D."

When this number of the *Medical Times and Gazette* reaches the homes of our subscribers, we hope it will find them in a frame of mind in which Medical thoughts will not be uppermost. Holly and mistletoe will be talked of instead of podophyllin and colchicum; the *Cruciferæ* will be represented by a snow-white heap of *Rad. cochleariæ armoraciæ*, shred into finest threads, and covering a juicy sirloin—(may no fell mistake bring in the aconite instead); and if one of the venomous *Ranunculaceæ* dares lift its head, may it be that pretty *Helleborus Niger*, whose snow-white blossom has earned for it the name of "Christmas rose." We wish we could say with the poet—

> "No war, nor battle's sound
> Was heard the world around;
> The idle spear and shield were high uphung;
> The hooked chariot stood
> Unstained with hostile blood;
> The trumpet spake not to the armed throng;
> And kings sat still with awful eye,
> As if they surely knew their sovran Lord was nigh."

But, alas! between the once not unrighteous vengeance of the Prussians and the obstinate pride of M. Gambetta, that fair country—our nearest and, we may say, dearest neighbour—is scourged by war, famine, and pestilence, and the flower of the European manhood bivouac in weather to which one would not expose a dog. But it is of no use to indulge in unavailing regret. Meanwhile, let us act upon that grandest of all sentiments in the grand poem of Job, and whilst we enjoy the good things bestowed upon us, let us keep a thought for those who are less blessed, whether they be the poor at our own door, or the innocent peasantry of France.

For our own parts, we abdicate controversy for once. We hope that female-philosophers will eat their Christmas dinners in the bosom of their families, and condescend to be thankful for family life, as it is still permitted to exist. Quacks and charlatans may take breath for once. We will not even give a luminous exposition of sanitary science; but that our readers may enjoy themselves, let them read the following poem, by Dr. Oliver Wendell Holmes, the "Autocrat of the Breakfast Table." We take it from the *Boston Medical and Surgical Journal* of June 9, but, so far as England is concerned, it is not the worse for wear:—

RIP VAN WINKLE, M.D.

AN AFTER-DINNER PRESCRIPTION

Taken by the Massachusetts Medical Society, at their Meeting, held May 25, 1870.

Canto First.

Old Rip Van Winkle had a grandson, Rip,
Of the paternal block a genuine chip;
A lazy, sleepy, curious kind of chap;
He, like his grandsire, took a mighty nap,
Whereof the story I propose to tell
In two brief cantos, if you listen well.

The times were hard when Rip to manhood grew—
They always will be when there's work to do;
He tried at farming—found it rather slow;
And then at teaching—what he did'nt know;
Then took to hanging round the tavern bars,
To frequent toddies and long-nine cigars,
Till Dame Van Winkle, out of patience, vexed
With preaching homilies, having for their text
A mop, a broomstick—aught that might avail
To point a moral or adorn a tale—
Exclaimed, "I have it! Now then, Mr. V.!
He's good for *something*—make him an M.D.!"

The die was cast. The youngster was content;
They packed his shirts and stockings, and he went.
How hard he studied it were vain to tell—
He drowsed through Wistar, nodded over Bell,
Slept sound with Cooper, snored aloud on Good;
Heard heaps of lectures—doubtless understood—
A constant listener, for he did not fail
To carve his name on every bench and rail.

Months grew to years; at last he counted three,
And Rip Van Winkle found himself M.D.
Illustrious title! In a gilded frame
He set the sheepskin with his Latin name,
Ripum Van Winklum, quem we—scimus know—
Idoneum esse, to do so-and-so;
He hired an office; soon its walls displayed
His new diploma and his stock-in-trade,
A mighty arsenal to subdue disease
Of various names, whereof I mention these:
Lancets and bougies, great and little squirt,
Rhubarb and Senna, Snakeroot, Thoroughwort,
Ant. Tart., Vin. Colch., Pil. Cochiæ, and Black Drop,
Tinctures of Opium, Gentian, Henbane, Hop,
Pulv. Ipecacuanhæ, which for lack
Of breath to utter men call Ipecac,
Camphor and Kino, Turpentine, Tolu,
Cubebs, "Copeevy," Vitriol—white and blue—
Fennel and Flaxseed, Slippery Elm and Squill,
And roots of Sassafras and "Sassaf'rill,"
Brandy—for colics—Pinkroot—death on worms—
Valerian—calmer of hysteric squirms—
Musk, Assafœtida—the resinous gum
Named from its odour (well, it does smell some)—
Jalap—that works not wisely, but too well—
Ten pounds of bark and six of Calomel.

For outward griefs he had an ample store—
Some twenty jars and gallipots, or more:
Ceratum simplex—housewives oft compile
The same at home, and call it "wax and ile;"
Unguentum Resinosum—change its name,
The "drawing salve" of many an ancient dame;
Argenti Nitras, also Spanish flies,
Whose virtue makes the water-bladders rise—
(Some say that spread upon a toper's skin
They draw no water—only rum or gin)—
Leeches, sweet vermin! don't they charm the sick?
And Sticking-plaster—how it hates to stick!
Emplastrum Ferri—ditto *Picis*, Pitch;
Washes and Powders, Brimstone for the —— which,
Scabies or *Psora*, is thy chosen name
Since Hahnemann's goosequill scratch'd thee into fame,
Proved thee the source of every nameless ill,
Whose sole specific is a moonshine pill,
Till saucy science, with a quiet grin,
Held up the Acarus, crawling on a pin?
—Mountains have laboured and have brought forth mice:
The Dutchman's theory hatched a brood of—twice
I've well nigh said them—words unfitting quite
For these fair precincts and for ears polite.

The surest foot may chance at last to slip,
And so at length it proved with Doctor Rip.
One full-sized bottle stood upon the shelf
Which held the medicine that he took himself;
Whate'er the reason, it must be confessed
He filled that bottle oftener than the rest;
What drug it held I don't presume to know—
The gilded label said "Elixir Pro."

One day the Doctor found the bottle full,
And, being thirsty, took a vigorous pull,
Put back the "Elixir" where 'twas always found,
And had old Dobbin saddled and brought round.
—You know those old-time rhubarb-coloured nags
That carried Doctors and their saddle-bags;
Sagacious beasts! they stopped at every place
Where blinds were shut—knew every patient's case—
Looked up and thought—the baby's in a fit—
That won't last long—he'll soon be through with it;
But shook their heads before the knockered door
Where some old lady told the story o'er
Whose endless stream of tribulation flows
For gastric griefs and peristaltic woes.

What jack-o'-lantern led him from his way,
And where it led him, it were hard to say;
Enough that wandering many a weary mile
Through paths the mountain sheep trod single file,
O'ercome by feelings such as patients know
Who dose too freely with "Elixir Pro.,"
He tumbl—dismounted, slightly in a heap,
And lay, promiscuous, lapped in balmy sleep.

Night followed night, and day succeeded day,
But snoring still the slumbering Doctor lay;
Poor Dobbin, starving, thought upon his stall,
And straggled homeward, saddle-bags and all.
The village people hunted all around,
But Rip was missing—never could be found:
"Drownded," they guessed. For more than half a year,
The pouts and eels *did* taste uncommon queer:
Some said of apple-brandy—other some
Found a strong flavour of New England rum.

—Why can't a fellow hear the fine things said
About a fellow, when a fellow's dead?
The best of doctors—so the press declared—
A public blessing, while his life was spared;
True to his country; bounteous to the poor;
In all things temperate, sober, just, and pure;
The best of husbands! echoed Mrs. Van—
And set her trap to catch another man.

—So ends this Canto—if it's *quantum suff.*,
We'll just stop here, and say we've had enough,
And leave poor Rip to sleep for thirty years;
I grind the organ—if you lend your ears
To hear my second Canto—after that
We'll send around the monkey with the hat.

Canto Second.

So thirty years had passed, but not a word
In all that time of Rip was ever heard.
The world wagged on—it never does go back—
The widow Van was now the widow Mac;
France was an empire—Andrew J. was dead,
And Abraham L. was reigning in his stead.
Four murderous years had passed in savage strife,
Yet still the rebel held his bloody knife.
—At last one morning—who forgets the day,
When the black cloud of war dissolved away?
The joyous tidings spread o'er land and sea;
Rebellion done for! Grant has captured Lee!
Up every flagstaff sprang the Stars and Stripes—
Out rushed the "extras," wild with mammoth types—
Down went the labourer's hod, the schoolboy's book—
"Hurrah!" he cried, "the rebel army 's took!
Ah! what a time! the folks all mad with joy:
Each fond, pale mother thinking of her boy;
Old grey-haired fathers meeting—Have you heard—?
And then a choke—and not another word;
Sisters all smiling; maidens, not less dear,
In trembling poise between a smile and tear;
Poor Bridget thinking how she'll stuff the plums
In that big cake for Johnny when he comes.
Cripples afoot—rheumatics on the jump;
Old girls so loving they could hug the pump,
Guns going bang! from every fort and ship—
They banged so loud, at last they wakened Rip.

I spare the picture, how a man appears
Who's been asleep a score or two of years;
You all have seen it to perfection done
By Joe Van Wink—I mean Rip Jefferson.
Well, so it was—old Rip at last came back,
Claimed his old wife—the present widow Mac—
Had his old sign regilded, and began
To practise physic on the same old plan.

Some weeks went by—it was not long to wait—
And "please to call" grew frequent on the slate.
He had, in fact, an ancient, mildewed air,
A long grey beard, a plenteous lack of hair—
The musty look that always recommends
Your good old Doctor to his ailing friends.
—Talk of your science! after all is said
There's nothing like a bare and shiny head—
Age lends the graces that are sure to please,
Folks want their Doctors mouldy, like their cheese.

So Rip began to look at people's tongues
And thumped their briskets (called it "sound their lungs"),
Brushed up his knowledge smartly as he could,
Read in old Cullen and in Dr. Good.
The town was healthy; for a month or two
He gave the sexton little work to do.

About the time when dog-day heats begin,
Measles and mumps and mulligrubs set in;
With autumn evenings dysentery came,
And dusky typhoid lit his smouldering flame:
The blacksmith ailed; the carpenter was down;
And half the children sickened in the town.
The sexton's face grew shorter than before—
The sexton's wife a brand-new bonnet wore—
Things looked quite serious—Death had got a grip
On old and young, in spite of Dr. Rip.

And now the Squire was taken with a chill—
Wife gave "hot drops"—at night an Indian pill;
Next morning, feverish—bedtime, getting worse,
Out of his head—began to rave and curse;
The Doctor sent for—double quick he came:
Ant. Tart. gran. duo, and repeat the same
If no ct cetera. Third day—nothing new;
Percussed his thorax—set him cussing, too;
Lung-fever threatening—something of the sort—
Out with the lancet—let him blood—a quart;
Ten leeches next; then blisters to his side;
Ten grains of calomel—just then he died.

The Deacon next required the Doctor's care—
Took cold by sitting in a draught of air—
Pains in the back, but what the matter is
Not quite so clear—wife calls it "rheumatiz."
Rubs back with flannel—gives him something hot—
"Ah!" says the Deacon, "that goes *nigh* the spot."
Next day a *rigor*—run, my little man,
And say the Deacon sends for Doctor Van.
The Doctor came—percussion as before,
Thumping and banging till his ribs were sore—
"Right side the flattest"—then more vigorous raps—
Fever—that's certain—pleurisy, perhaps.
A quart of blood will ease the pain, no doubt,
Ten leeches next will help to suck it out,
Then clap a blister on the painful part—
But first two grains of *Antimonium Tart.*
Last, with a dose of cleansing calomel
Unload the portal system——that sounds well!

But when the self-same remedies were tried,
As all the village knew, the Squire had died;
The neighbours hinted—"This will never do,
He's killed the Squire—he'll kill the Deacon too."

—Now when a Doctor's patients are perplexed,
A *consultation* comes in order next—
You know what that is? In a certain place
Meet certain Doctors to discuss a case
And other matters, such as weather, crops,
Potatoes, pumpkins, lager beer and hops.
For what's the use?—there's little to be said,
Nine times in ten your man's as good as dead—
At best a talk (the secret to disclose)
Where three men guess, and *sometimes* one man knows.

The counsel summoned came without delay—
Young Dr. Green and shrewd old Dr. Gray—
They heard the story—"Bleed!" says Doctor Green,
"That's downright murder! cut his throat, you mean!
Leeches! the reptiles! Why, for pity's sake,
Not try an adder or a rattlesnake?
Blisters! Why, bless you, they're against the law—
It's rank assault and battery if they draw!
Tartrate of Antimony! shade of Luke,
Stomachs turn pale at thought of such rebuke!
The portal system! What's the man about?
Unload your nonsense! Calomel's played out!
You've been asleep—you'd better sleep away
Till some one calls you"—
"Stop!" says Doctor Gray—
"The story is you slept for thirty years;
With brother Green, I own that it appears
You must have slumbered most amazing sound;
But sleep once more till thirty years come round,
You'll find the lancet in its honoured place,
Leeches and blisters rescued from disgrace,
Your drugs redeemed from fashion's passing scorn,
And counted safe to give to babes unborn."

Poor sleepy Rip, M.M.S.S., M.D.,
A puzzled, serious, saddened man was he;
Home from the Deacon's house he plodded slow,
And filled one bumper of "Elixir Pro."
"Good-bye," he faltered, "Mrs. Van, My dear!
I'm going to sleep, but wake me once a year;
I don't like bleaching in the frost and dew,
I'll take the barn, if all the same to you.
Just once a year—remember! no mistake!
Cry 'Rip Van Winkle! time for you to wake!'
Watch for the week in May when laylocks blow,
For then the Doctors meet, and I must go."

—Just once a year the Doctor's worthy dame
Goes to the barn and shouts her husband's name,
"Come, Rip Van Winkle!" (giving him a shake)
"Rip! Rip Van Winkle! time for you to wake!
Laylocks in blossom! 'tis the month of May—
The Doctors' meeting in this blessed day,
And come what will, you know I heard you swear
You'd never miss it, but be always there!"

And so it is, as every year comes round
Old Rip Van Winkle here is always found.
You'll quickly know him by his mildewed air,
The hayseed sprinkled through his scanty hair,
The lichens growing on his rustic suit—
I've seen a toadstool sprouting on his boot—
—Who says I lie? Does any man presume—
Toadstool? No matter—call it a mushroom.
Where is his seat? He moves it every year;
But look, you'll find him—he is always here—
Perhaps you'll track him by a whiff—you know—
A certain flavour of "Elixir Pro."

Now, then, I give you—as you seem to think
We can drink healths without a drop to drink—
Health to the mighty sleeper—long live he!
Our brother Rip, M.M.S.S., M.D.!

THE WEEK.

TOPICS OF THE DAY.

It is understood that the Apothecaries' Society have accepted the invitation to meet the Committees of the Royal Colleges of Physicians and Surgeons for the purpose of reopening the negotiations for the formation of a conjoint Board of Examiners, and that a deputation from the Society will be present at the next meeting of the Committees. There can be no doubt, if the three Medical corporations co-operate frankly and honestly in this matter, that the best and most practical Medical and Surgical examination for the great mass of the Medical Practitioners of any country in Europe will be the result. The improvements which, within the last few years, have been introduced in the Fellowship and Membership examinations of the Royal College of Surgeons of England have raised them respectively to a degree of eminence as practical tests which it is very difficult to surpass.

We are glad to be informed that the Court of Examiners of the Apothecaries' Society have taken another step in the direction of making their examinaions as useful and searching as possible. The Court have, in this instance, borrowed from the practice of the Court of Examiners of the Royal

College of Surgeons. At the examination at the Hall last week, a healthy man, stripped to the pelvis, was placed on a couch, and the candidates were requested, one by one, to trace with chalk the anatomical relations of the viscera of the thorax and abdomen. Easy as this test may seem, we believe that the results of the examination have thoroughly convinced the Court of Examiners of its utility.

The majority in favour of Dr. Andrew Wood's motion at the recent meeting of the Royal College of Surgeons of Edinburgh, ought to prove to the upholders of mixed classes of young men and young women in Medical and anatomical study, that society, or at all events its Medical section, is not sufficiently advanced to appreciate and accept their theory, and that the great majority of leading men in the Profession utterly repudiate their practice. The fact is that the whole scheme has been now tried in Edinburgh, and it has been fully shown to be a covert but uncompromising attack upon the modesty of both sexes, and has ended in miserable failure. That ladies should dissect a nude subject in the presence of young men was believed by most decent persons to be beyond possibility, but has been proved to be within its limits; but that gentlemen should stand by and see them do it has been proved to be impossible. If the ladies do not recognise the impossibility, so much the worse for the ladies. The Council of the University of Edinburgh, if they do not wish to see the ruin of the Medical Faculty in the University complete, must promptly follow the lead of the Royal College of Surgeons, and obtain the repeal of the law which first admitted mixed classes in any Medical subject of study. The Council of the University, which ought indeed to represent the whole opinion of the graduates, is unfortunately practically, as one of our Edinburgh correspondents has lately shown, merely a gathering of Edinburgh writers to the *Signet* and Presbyterian ministers, with scarcely any of the Medical element. This body it was which commenced the injury of the great Edinburgh Medical School by approving the admission of women to the University classes. Surely the Medical graduates of the University who are members of its Senate might interfere to save their University. We know that in London there exists an Edinburgh University Club, which has enrolled a large number of leading Edinburgh graduates. Could not the committee of this Club organise some means by which the Council of the University should be made a more faithful representative of its graduates, and the evils which threaten the University be averted? We suppose that the recent votes of the managers of the Edinburgh Royal Infirmary and of the Royal College of Surgeons will be considered conclusive by even the lady Medical students themselves. It must be clear to them that, although no one would object to their starting a Female Medical College far from the haunts of men, and electing Mrs. This, M.D., and Miss That, M.D., Professors, the views ordinarily entertained of public decency must, as long as those views prevail, exclude them from existing British Medical schools.

In the case of Lee *v.* the Lancashire and Yorkshire Railway Company, the Vice-Chancellor, Sir R. Malins, dealt a most severe, but, as we think, deserved blow at the non-Professional practice of interference by Medical men in the settlement of pecuniary claims in railway accidents. The plaintiff sought to restrain the Company from setting up in bar to an action by the plaintiff for compensation for injuries, a release signed by him, which he alleged had been obtained from him in an unfair manner, and by concealment of his real state. The plaintiff alleged that his own and the Company's Medical men had concealed from him his real state, telling him that he would recover in three or four months from the effects of his accident, which occurred on September 25, 1865; and that in consequence of their representations he had, on October 18, 1865, accepted £400, with the payment of the Medical expenses, in discharge of his claims. His story was supported by quotations from letters which had passed between the Medical men. On October 16, Dr. Clayton, who had first seen the plaintiff after the accident, wrote to Dr. Midwood, who was employed by the Company, as follows:—

"I must say I have my doubts [of a continued improvement], as I am still inclined to think there is some injury of the spinal cord. . . . I think the case a very doubtful one, and would recommend a settlement at once, for there is much scope for exacting heavy damages for injuries (even doubtful injuries) of the spine."

Again, Dr. Midwood wrote to Dr. Sanford, the plaintiff's Medical adviser, on October 17:—

"You will be glad to learn that negotiations in the case of Mr. Lee are almost completed, we (*i.e.*, the Company) undertaking to pay the Medical expenses."

And on November 9:—

"I think a very good settlement was effected, and as you materially assisted us, I have much pleasure in handing you a cheque for the full amount of your account."

These letters were held to show that the Doctors were more anxious to propitiate the Company, from whom they were to receive payment, than to inform the patient of his actual state. On October 18, Dr. Midwood, with the traffic manager of the railway Company, called on the plaintiff, and induced him to accept the £400. The plaintiff alleged that he had remained incapacitated for business ever since. In giving judgment, the Vice-Chancellor said this was an extraordinary case, and he hoped the last of the sort that would appear before that Court. He then went through the facts of the case up to the time when the plaintiff had been visited by the three Doctors—Dr. Midwood, Dr. Clayton, and Dr. Sanford; it appeared that they could give no positive opinion on his case, but thought he might recover in three or four months; but, they might have added, he might also be bedridden for life. The Vice-Chancellor continued:—

"Now, in this state of uncertainty, a transaction occurred, of which on a former occasion I have expressed my marked disapprobation—a disapprobation in which I am happy to find the Chief Justice of England and Mr. Justice Keating concur. The Medical officer of the Company, foregoing his proper function, and while the patient was still in uncertainty as to his actual state, induces him to accept a compromise of his claims."

He then referred to a case of "M'Gregor *v.* the Great Western Railway Company," in 1867, which was very similar to the present, and in which, the Company having submitted to follow his decision, he had awarded to the plaintiff 3000*l.*; and continued:—

"All I have to consider now is, whether the compromise made twenty-three days after the accident was entered into under such circumstances as to be now binding on the plaintiff. Who advised him on the occasion? Was he informed of all the facts? Did he know the extent of the right which he was giving up? If he was not informed, the compromise was unfair, and cannot be supported. I say that if railway companies, while patients are in their own hands—that is, in the hands of their Doctors—choose to make a compromise with them, it is unbecoming of them not to see that the patients are properly informed. It was probable here (and the Company knew it) that the man's spinal cord was injured, and he might therefore possibly be incapacitated for life; he should have had the advice of a solicitor, or of some capable person. But the Company caught him in this state; and, doubtless, the officials went home chuckling over their bargain. They possessed knowledge which he ought to have had, and had not, and therefore the compromise could not stand."

The Vice-Chancellor then commented on the letters between the Medical men, which he held to be fatal to the defendants' case, as showing that there had been a material suppression of facts. In the end, he found for the plaintiff, with costs. For ourselves, we have always strongly maintained the position that Medical men should have nothing whatever to do with the pecuniary settlement of these cases. The business of the Medical officer to the Company is to advise his employers as

to the nature and extent of the injury sustained. When he steps beyond his proper vocation, and condescends to negotiate the amount of compensation, he does it in defiance of the first principle of Medical ethics, turning the information which his Professional acquaintance with the condition of a patient has afforded him to the advantage of others, at the expense of the patient himself. The oath of Hippocrates says: "Into whatever houses I enter, I will go into them for the benefit of the sick."

Mr. Attfield, Professor of the Pharmaceutical Society, has written to the *Times* newspaper, asserting that Condy's fluid is not a reliable test for the presence of substances of sewage origin in water. He thinks it by no means equals, as a test, the sense of smell, after the water has been slightly warmed and shaken. The late Professor Miller, on the other hand, in the recently-published "Introduction to Inorganic Chemistry," asserts that, if the colour of the permanganate is not sensibly altered, there is no organic impurity to be feared in the water. This is a question which at least should not be left open to doubt, considering the almost universal employment of the permanganate as a test. We believe that the permanganate of potass is merely a test for any reducing agent—alcohol, for example. Of course, it would not be affected by living organic matter.

The small-pox epidemic has assumed dimensions for which the metropolis was not prepared. The Hampstead Hospital is full, and cases of small-pox are beginning to collect in the workhouses. A special committee of the Metropolitan Asylums Board have undertaken the matter, and they, with the sanction of the Poor-law Board, have decided to remove the temporary Hospital which was provided for patients suffering from relapsing fever last year to Hampstead. This will be opened on the 7th of January for 70 additional patients. Of 141 cases admitted at the Hampstead Hospital 98 had been vaccinated and 43 were unvaccinated. Of 14 patients who had died none had been vaccinated. The numbers reported to have been admitted from the various parishes into the Hampstead Hospital at the meeting of the Metropolitan Asylums Board on Saturday last were—Shoreditch, 25; St. George's Union, Hanover-square, 19;(a) Bethnal-green, 14; the City of London, 7; St. George's-in-the-East, 7; Mile-end Old Town, 7; Stepney, 6; Poplar, 6; St. Mary, Lambeth, 5; Camberwell, 4; Whitechapel, 4; St. Saviour's, Southwark, 4; Fulham, 4; Strand, 4; Hackney, 4; Westminster, 3; Kensington, 3; Wandsworth, 2; Lewisham, St. Luke's, Chelsea, St. Olave's, and Greenwich, 1 each.

The baby-farmer, Mary Hall, who has been convicted of attempting to impose a supposititious child on a Mr. Loe, has been sentenced to two years' imprisonment, and to pay a fine of £100 to cover the costs of the prosecution. Property in scrip and bonds to the amount of £800 was found hidden in her garden, and in her possession a quantity of promissory notes and I O U's from various "ladies." This woman seems to have made a better thing of her trade than the less fortunate Margaret Waters.

DEATH OF DR. BREWSTER, OF PARIS.

We are sorry to hear of the death of Dr. Brewster, who practised dentistry in Paris for many years. He had amassed a fortune, and had retired from the Profession, taking a house at Versailles. Since the Prussian occupation, several officers have been quartered upon him. At his advancing years, this possibly told injuriously upon his health. A few days ago he died in a fit. A melancholy part of the story is that his wife and daughter are refugees in England—unable, of course, to return to Versailles.

(a) This union includes part of Westminster, where vaccination seems neglected, and does not refer to the parish of St. George's, Hanover-square, which is under the efficient care of Dr. Aldis.

FEMALE PHYSIC AT EDINBURGH.

At a special meeting of the Royal College of Surgeons of Edinburgh, held on the 19th inst., it was resolved, by a majority of 27 to 4, "That, in the opinion of this College, it is neither proper nor expedient that males and females should be associated together in the study of Medicine, either in Hospitals or in classes." Dr. Handyside and Dr. P. Watson, two Fellows of the College who have been guilty of this breach of propriety, moved the negative.

THE VACCINATION ACT.—IMPORTANT DECISION.

Thomas S. Gervis, of Reed's-place, Kentish-town, appeared at Clerkenwell, on December 16, to answer a summons taken out by Mr. Adams, the Vaccination Inspector for St. Pancras parish, for neglecting to have his son, Arthur Thomas Gervis, aged eleven months, vaccinated. The defendant pleaded guilty. Mr. Cooke: You have pleaded guilty of not having had your child vaccinated within three months of its birth. You object to having the child vaccinated because you conscientiously believe it will be an injury rather than a benefit. That plea could have no effect whatever. There is upon the statute-book a law which requires me to convict and inflict a penalty against any person who offends against that law. But the Police Act provides that persons should be summoned within six months after the offence. The six months commenced at the expiration of the three months, and the summons being taken out in December, makes it two months after my jurisdiction expired. I am of opinion that I have no jurisdiction to convict. I must order you to be discharged.—The defendant then left the Court, evidently very much pleased with the decision.

DRS. NORMAN CHEVERS AND MOUAT.

It is no doubt very gratifying to the numerous friends in this country of the above distinguished members of our Profession to see how well their services are commented on in the *Times*. It appears that the retirement of Dr. Mouat from the Inspectorship of Gaols in Lower Bengal has caused a little difficulty. His place has been filled by Dr. Fawcus, his late deputy, a good gaol manager, only altogether out of the groove of seniority, and only an Assistant-Surgeon. Dr. Norman Chevers—a gentleman, perhaps at the head of the Profession in India, adds the *Times*—is held to have had the prior claim in every way, and it is said that he was quite willing to accept the post. On the other hand, it is argued that Dr. Chevers would very soon, from age, be unequal to the great labour of such an office. The appointment rested with the Lieutenant-Governor of Bengal, and he is charged, as usual in such cases, with giving his decision on narrow grounds. Dr. Fawcus has proved himself the man for gaol management, and in that light the question would be viewed by Sir William Grey. No one, however, hints that Dr. Chevers would not also have proved a good superintendent, and everyone admits his high attainments, character, and claims. Dr. Mouat, adds our distinguished contemporary, has been mentioned in some quarters as a gentleman eminently entitled to the Star of India, which has never yet been given to a Medical man for purely civil services.

BIRMINGHAM LYING-IN HOSPITAL.

From the twenty-eighth report of this charity, which has just been published, it appears that the introduction of the "midwife system" has been a decided success. This is the third year of its trial, and the results have been most satisfactory. During this time 2802 women have been attended by the midwives; out of which number only two deaths have occurred—a very small average—the average being in English lying-in Hospitals 1 in 56, and on the Continent 1 in 25, clearly showing the superior advantages of the home system. Puerperal fever—the pest of the lying-in ward—has been con-

spicuous by its absence, not a single case having occurred. The patients express themselves as having the greatest confidence in their female attendants, of whom they speak in the highest terms of praise, and whose ability is proved by the fact that, out of the large number of cases attended by them, in only fifty-three have they required the assistance of the honorary officers—that is, in about 3¼ per cent. The governors, therefore, have good reason for congratulating themselves and the subscribers on the issue of their experiment.

MEDICAL MATTERS IN BELFAST.

At the annual meeting of the Belfast General Hospital, held last week, it was stated that the Medical school was in a highly prosperous condition. The number of students in attendance on lectures and Hospital dressings amounted in the year to 112. The committee had appointed a resident clinical assistant, selected from resident pupils of not less than six months' standing, to have free boarding in the house. With respect to the cases treated in the Hospital, the total number in the Medical and Surgical wards was 1497, a total exceeded only three times—in 1866, 1867, and 1868—in which there were 1722, 1657, and 1502 patients respectively. A motion was carried for taking into consideration the best means of providing a training-school for nurses, either by the Hospital or by a separate board. With respect to the prevalence of small-pox in Belfast, the Commissioners appointed to inquire into the circumstances connected with it, say that they feel satisfied that small-pox has been introduced into the town by contagion, and possibly in more instances than those discovered, by reason of the frequent intercourse with other ports, especially those of Glasgow and Liverpool, in which places small-pox has been prevalent for some time past. The Commissioners, now that small-pox is epidemic in Belfast, urge upon the guardians the necessity for a vigorous use of their powers under the provisions of the Compulsory Vaccination Act. The Commissioners also draw attention to the recommendations of the inspectors to provide for the more complete isolation of the small-pox cases.

ARBITRATION IN RAILWAY ACCIDENT CASES.

An elaborate paper was read before the last meeting of the Juridical Society, on the advisability of arbitration in railway cases: the arbitrator to be the judge, the verdict of the jury *quoad* the damages being ignored. It was also argued that the amount of damages to which a railway company should be liable should be limited. These propositions were opposed by the Chairman, the Hon. G. Denman, and Mr. Hume Williams, who contended that a jury consisting of twelve well-informed persons would be more likely to arrive at a just conclusion with respect to the extent of mischief done to the plaintiff, and consequently of the amount of damages to be awarded, than any single man, however able and experienced. It was argued that unlimited liability on the part of the company was the only safeguard the public had against carelessness upon the company's part. It is remarkable that, as far as we can gather from the report of the discussion in the newspapers, nothing was said about the Medical evidence in railway accident cases. This is the more remarkable, inasmuch as it is on the Medical evidence mainly that the amount of compensation is determined by the jury, and inasmuch as one of the ablest speakers was himself formerly a Doctor of Medicine, and of high authority in the questions discussed. We still think, however, that if the question of fact were to be determined as to the cause of accidents, and who were to blame, the amount of compensation should be determined by a Medical tribunal, so constituted as to represent all interests, and above suspicion of bias. We agree in one recommendation of the Chairman of the Juridical Society, that a portion, at least, of the damages should be reserved, and dealt with according to the course the injury or its effects may take.

CAMBRIDGE EXAMINATIONS.

A copy of the *Cambridge University Reporter*, which has reached us, contains, in a supplement, three sets of examination papers —those for the second and final M.B. and C.M., those for the Moral Science Tripos, and the special examinations, including those in Science, for the ordinary degree. Of the papers for the Moral Science Tripos, we have every desire to speak with respect; of those for the M.B., that they are unworthy of Cambridge; of those on Natural Science for the ordinary degree, that they are quite up to the mental status of an ordinary school-boy. And this of Cambridge: boasted for her advantages and advances in the domains of modern science!

Of the second M.B. papers we shall say a word. First, we have a long paper on Pharmacology, against which we have nothing to advance, except that, finding no reference to therapeutics elsewhere, one would be inclined to suppose that it would be better for the student about to become a Practitioner to know something of the actions and uses of remedies than all about their natural history and pharmaceutics. The second paper is on Comparative Anatomy. Here is a sample verbatim from the *Reporter*—"Describe the eye of a bird, and compare it with *those* of a mammal." The grammar, we may remark, is not ours.

The paper on Anatomy and Physiology we publish in its entirety, and we will leave our readers to judge if it is in any degree superior to the ordinary papers for the M.R.C.S.E., although the Cambridge M.B. is commonly considered to be something very much better. We will take it upon us to assert that it is not to be compared with the late examination for the F.R.C.S.E., especially in what relates to physiology.

"Michaelmas Term.—December 6, 1870; 9 to 12.

"*Human Anatomy and Physiology.*

"1. Describe briefly the origin, course, distribution, and functions of the third, or inferior maxillary division of the fifth pair of cranial nerves.

"2. What dissection would you make, in an entire subject, to expose the interior of the pericardium, and the several cavities and valves of the heart, so as to examine them *in situ*?

"3. Describe briefly the boundaries of the axillary space. Mention the structures that lie within it, and give the course and relations of the axillary artery, and the distribution of its branches within the same space.

"4. Give the origin, course, and distribution of the external popliteal or peroneal nerve of the leg.

"5. Describe the minute structure of the liver. What are the sources of the blood supplied to it, the constituents of its secretions, and their use in the animal economy?

"6. Describe briefly the mechanism of respiration in the human subject. Enumerate the ordinary and extraordinary muscles of inspiration and expiration respectively, and the nerves which supply them and the lungs."

The papers for the final M.B. comprehend two on Pathology and Practice of Medicine. They are, on the whole, fair, as is that on Medical Jurisprudence; but we may remark that Cambridge pathology does not include a single new formation—with exception of a reference to those "prone to cheesy metamorphosis."

The Science includes such questions as, "What is induction?" "What is the electric state of the air?" "Can you account for the atmospheric electricity?" "Water is boiled at the sea-level and on a mountain-top: What difference manifests itself in the phenomena?" "What is the dew-point?" etc., etc. We really wonder what text-books in Physics are popularly used at Cambridge. Routledge's "Every Boy's Book" would seem to be about the accurate standard.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN-SQUARE.

The Committee of Management of this Institution have just taken the adjoining house, and are about to incorporate it with their present building. This addition will be of great advantage to the Hospital. On the ground-floor, it will give to the out-patient department an additional examining-room, and an

inhalation-room, and will greatly improve the dispensary and waiting-halls. There will also be a museum for the pathological specimens (amounting already to nearly 100) illustrative of diseases of the throat. In the upper stories, the accommodation for female patients will be considerably enlarged, and other improvements will be made. The committee have just appointed two additional Physicians; the gentlemen elected are Dr. Semple and Dr. Prosser James. Dr. Morell Mackenzie still continues his demonstrations, every Thursday, with the oxyhydrogen light.

FROM ABROAD.—PHYSICIANS AND PHARMACEUTISTS—PROFESSOR BILLROTH ON OUNSHOT WOUNDS.

UNDER the title of "The Relations subsisting between Physicians and Apothecaries, and also between these and their respective Patients and Patrons," Dr. Burge read a paper recently before the King's County Medical Society, New York, from which it would appear that the relationship between Practitioners and pharmaceutists are scarcely more satisfactory in the United States than with us. We say "pharmaceutists," because Dr. Burge employs that term indifferently with the term apothecaries, or, as we should say, chemists and druggists. Seeing that in the United States all Practitioners have taken their degrees, and that few, except in remote districts, supply their own medicines, one would have thought that their relationship to the pharmaceutists would have been somewhat precisely determined. At all events, "practising over the counter," which our own pharmaceutists are always telling us only is persisted in because Medical Practitioners will deal in drugs, might be supposed to have no existence under these circumstances. But Dr. Burge tells us—

"So universal has this become, that the common people call drug stores 'Doctors' shops.' Just as an ignorant man supposes that a Doctor knows all about the art of pharmacy—of which, by the way, he is often shamefully ignorant—so he supposes the apothecary to know all about disease; and this popular impression and misconception often spreads to these functionaries, and leads them to imagine themselves to be what they are not. By taking advantage of the popular error—viz., that because he deals in medicines he must know all about their uses—he performs a service for which he has not been fitted by education or practice. He impliedly makes pretension to knowledge which he does not possess, and he takes from the Physician part of that business which he has spent the best years of his life in preparing himself for."

At present the pharmaceutists in America are not in a proper condition to carry on even their own functions with advantage and safety to the public, as, although there are several Colleges of Pharmacy, and ample means of instruction, these are invested with no compulsory examining powers, and the occupation is open to all, qualified or not. The time is, however, so recent when the same disgraceful state of things prevailed among ourselves, that we feel little entitled to comment upon it.

Dr. Burge's address is marked by the same high tone which always characterises the writings of the *élite* of our Profession in the States, and he strongly insists that the relationship is no one-sided question, but that, if the Doctor expects proper observance of certain ethical rules by the pharmaceutist, he must be prepared on his own part to accord him his due consideration.

"For example, may he not reasonably expect that we should recognise his professional character, and not look upon him as a simple vendor of drugs? that we should not steal away his custom by an endeavour to join the apothecary's art to the duties of Physician? that we should by no careless insinuation lessen the proper confidence which his patrons repose in him? that we should write our prescriptions so legibly that there can be no doubt of our intention, and so fully and accurately as to burden him with no responsibilities except such as properly belong to his office? that we should depend upon the fees of our own Professional services for emolument, and never seek, directly or indirectly, to draw revenue from the apothecary's till? . . . . Would it not be well to have occasional meetings of Physicians and apothecaries, for the express purpose of discussing such points as touch the interest of both? Such conferences would not only increase our stock of knowledge, but promote kindliness; for there is nothing like the gentle attrition of social and Professional intercourse to wear off the asperities of life. The apothecaries could doubtless tell us many things which it would be profitable for us to know, not only in estimating their services as a class, but in judging of the relation in which they stand to us."

It is scarcely necessary to state that Dr. Burge emphatically condemns the receipt of commission from chemists and the writing prescriptions in cipher. Also, he is of opinion that the scientific pharmaceutist—the Physician's helpmeet and co-labourer—as distinguished from the mere medicine vendor, should refuse to sell all secret nostrums.

Professor Billroth, in opening his clinic for this year, observed that, by a curious coincidence, his first case gave him the opportunity of stating the results of the experience he had acquired during the present war, from the seat of which he had just returned, with regard to the imbedding of metal substances, and especially bullets, in the body. In most books on military Surgery, the ease with which these bodies become imbedded is stated as a practical reason for not meddling with them. This man, while striking an anvil, four months ago, was struck on the left forearm by a piece of iron, which penetrated its volar surface. This, about three-quarters of an inch in length, could be felt an inch and a half distant from the small cicatrix left by the easily-healed wound. It proved of little inconvenience, except when the man engaged in heavy work, when it caused pain. It was easily removed, and had caused no suppuration. The Professor has frequently met with similar cases, in which splinters of metal or glass, shot, or revolver balls have caused little inconvenience. Needles, in the same way, may remain months or years. But as regards modern projectiles, the case is different, the experience of Professor Billroth, as well as that of all army Surgeons with whom he has conversed upon the subject, leading to the conclusion that these, sooner or later, when detained in the body, give rise to suppuration, and that their imbedment, without giving rise to pain or suppuration, is to be regarded as quite exceptional. Still, in the present war, instances have been observed in which these balls have been imbedded and encapsulated. The vast majority of the wounds in this war have been caused by the chassepôt or needle gun, or fragments of shells; and in all the inquiries he made at the numerous Hospitals he visited, embracing thousands of patients, Professor Billroth could find no account of the injuries done by the balls of the mitrailleuse; so that, although these are larger, they do not seem to leave any distinctive mark of their action. He also saw very few sword wounds, and not a single bayonet wound.

Most of the projectiles which Professor Billroth either extracted or saw extracted had their form utterly changed, being converted for the most part into sharply angular lumps of metal. His sphere of activity not having been close to the battle-field, he only sought for balls when there was acute and enduring suppuration. The sharp angles of the projectiles gave rise to great mechanical irritation; and when the projectile could not be found, although even repeated incisions for the discharge of pus did not abate the progressive phlegmon, this immediately ceased when the projectile was removed. The same observations apply to shell splinters, which usually also had sharp angles. The changes in form in the projectiles arise from their striking bones, either fracturing or greatly contusing them. The mutual sympathy prevailing between the periosteum and the bone exerts great influence in the induction of the phlegmonous process. Acute osteomyelitis and periostitis so commonly lead to suppuration of the cellular tissue, that one as much as the other must be regarded as directly induced by the presence of these angular projectiles—these keeping up the phlegmon first induced by the injury to the bone.

Even when the projectiles injuring bones are unchanged in

form, they usually exert a pyogenic influence, although this may not show itself until from two to eight weeks after the injury. The head of the humerus, the tibia, and ends of the femur are the localities in which projectiles that have undergone little change are most frequently found; and, although these are sometimes found imbedded (*eingeheilt*), yet this is extremely rare. The bone is usually crushed; but when this is not the case, still suppurative ostitis, periostitis, or articular inflammation is produced, sometimes very late and unexpectedly. When in such cases we are able to extract the ball without opening into a joint, a favourable result may ensue with extraordinary rapidity. Professor Billroth refers to a case in which he extracted an entirely unchanged chassepôt ball after opening an abscess on the right scapula, which had remained there for three weeks and escaped numerous attempts at detection. Another also unchanged ball was removed by a counter-opening made for a phlegmonous abscess in the back part of the leg, although it was stated with great positiveness that no bullet could have lodged there. These and other cases show that an unchanged and smooth projectile, which has not come into contact with bone, may yet give rise to obstinate suppuration. In such cases, the violent tearing of the loose cellular tissue by these heavy metallic bodies is the chief cause of this. Lighter metallic bodies do not produce this effect, as has been already shown. Slight flesh wounds, however, were seen by Professor Billroth only in very small numbers, as such patients were generally transported at once to the more distant Hospitals. As the result of all these observations, the rule should be, where it can be accomplished without difficulty, to remove the ball at once, and not let it remain, without some very special grounds, and that independently of the joy the soldier always feels when he knows the ball has been extracted, and safely deposited in his purse. This rule applies almost exclusively to gunshot wounds of the extremities, as seeking for balls within the great cavities or in the deep parts of the neck is seldom an allowable procedure.

For the extraction of balls, Dr. Billroth has almost always employed only long, strong bullet forceps, or polypus forceps; and, luckily, he had brought a great number of these instruments with him. The American bullet-forceps, as commonly made, is considered by himself, as well as by all his colleagues, as too weak, and possessing no advantage. He heard of some cases in which the diagnostic importance of Nélaton's porcelain sound was extolled, but the porcelain head of this should not exceed a large pea in size. He has several times removed balls from bones by means of the small elevators and rasps (*raspatorien*) which are used for sub-periosteal excisions. These instruments are also useful when we wish to turn a deeply-placed ball in order to bring it better within the grasp of the forceps.

LECTURES ON PRACTICAL PHYSIOLOGY AT UNIVERSITY COLLEGE.

*** We have received a communication from Dr. B. Sanderson, and also from Dr. Brunton, in which they severally express their regret that the announcement relating to the lectures on Practical Physiology has led to the belief that Dr. Brunton, whose name is associated with Dr. Sanderson's in the authorship of the lectures, will take part in the University College course. It is, perhaps, scarcely necessary to state that this is a mistake, and that Dr. Brunton, being already Lecturer on Materia Medica in the Medical College of Middlesex Hospital, will take no part whatever in the Medical instruction given elsewhere.

THE SIAMESE TWINS.—This renowned pair, who have recently arrived from the Old World, are in a sad plight. One has had an attack of hemiplegia, the other seems perfectly well. The question is suggested—Should the paralytic die, what would be the fate of the other, since science has determined that they cannot be safely separated by a Surgical operation? They have left this city for their farm in North Carolina. —*New York Medical Record.*

THE SIXTH ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA—1869.

THE year 1869 has earned the evil notoriety of having been the most unhealthy which has yet been recorded in India since the attention of sanitarians has been particularly directed to that country. The success which at first attended the efforts of sanitary reformers was considered by the more sanguine to be the harbinger of an uninterrupted series of victories over disease. More far-seeing critics fell rather into disrepute for hinting their doubts as to the durability of the triumphs of sanitation, and advising a longer series of observations as a means of distinguishing accidental variations from permanent improvements. The history of the past year is a proof of the value of this advice, and will doubtless for the future keep the self-congratulations of sanitarians within reasonable bounds.

Cholera was widely spread all over India. It exerted its worst influences among European troops, but also caused a very considerable mortality among all other classes of the population. Bowel complaints, fevers, small-pox, and almost all other diseases, showed an increased prevalence. The death-rate among European troops is estimated as having been 42·89 per 1000: but this is below the actual mortality, as deaths of invalids on the homeward voyage, and at Netley, are not included; and, as we pointed out in our notice of the Report for 1868, the estimated strength of the European army is greater than the approximate annual mean strength, in consequence of its including men serving for periods less than a year, without the necessary reduction to the annual equivalent having been made. The death-rate, therefore, having been calculated on a strength greater than the actual, is lower than it should be. Assuming it, however, to be correct, the returns of 1869 are more unfavourable than those of any of the last eleven years, except 1859 and 1861, when the mortality amounted to 45·35 and 45·93 respectively; during the former year a great part of the army having been still exposed in the field, and during the latter a great epidemic of cholera having passed over Northern India. Of the total mortality, 16·46 per 1000 was due to cholera—or not much less than the whole death-rate of 1868, which is estimated at 20·11 per 1000. Deducting the proportion due to this one cause, the ratio for 1869 remains 26·43 to be accounted for by other diseases; a similar deduction from the death-rate of 1861 leaves only 22·20. Excluding cholera, therefore, the results of 1869 have been more unfavourable than those of any other year since 1859. The intensity of the cholera epidemic was not less than in former years. In every 100 Europeans attacked, there died, of men 63·55, of women 62·77, and of children 76·06. The ratio in the regular native army was 57·48, and in the Punjaub force 71·36. Among prisoners, 42·39 per cent. of those attacked died.

From fevers, dysentery, apoplexy, and hepatitis the casualties have been more than usually numerous. Delirium tremens was also considerably more prevalent than in 1868. The number of suicides was much in excess of what has been previously recorded, having been 20, while from 1861 till 1868 the number varied from 7 to 13. Four men were murdered. The loss from invaliding was 53·98 per 1000, being higher than in any previous year. The sum of loss by death and invaliding was 96·87 per 1000—the highest ratio in any one year since 1857, except 1858, when it was 154·66. But this result is not so unfavourable as at first sight it appears, as the proportion of men sent home merely for change of air was higher than in any previous year. Throughout the Presidency the admissions into Hospital numbered 59,882, or 1729·5 per 1000, which is higher than in any year since 1863. This result has been due chiefly to an excessive prevalence of fevers, from which 750·3 per 1000 were admitted—showing an advance, as compared with 1868, from 462 to 750, or nearly 300 per 1000. The deaths from fevers amounted to 4·71 per 1000. Owing to this fever epidemic, sickness was at its maximum in November. Of the 8000 admissions into Hospital which took place in that month, more than 5000 were from fever. The proportion per 1000 constantly sick in Hospital was 59, being the highest ratio since 1859; in November it was 72.

Notwithstanding the generally unhealthy nature of the season, Fort William, at Calcutta, enjoyed a remarkable immunity from cholera, and the health of the garrison, as regards relative freedom from all diseases, is said to have been excellent.

The death-rate was 18·81, while at Dum-Dum it was 36, and at Barrackpore 50 per 1000. At Allahabad the general death-rate was no less than 158·13 per 1000, the 58th Regiment presenting the enormous mortality of 184·57. The deaths were chiefly due to cholera, but the loss from other diseases was also heavy. In the Meerut and Rohilcund district the death-rate was 25·53, the admission-rate 1383, and the daily sick-rate 65 per 1000. Although these rates are comparatively satisfactory, they show a much lower standard of health than is usual over this area, and the unfavourable result cannot be attributed to cholera, from which the mortality was only 1·91 per 1000. Fever, apoplexy, dysentery, and hepatitis were each more fatal than cholera. At Meerut the deaths from cholera gave 7·04 per 1000, and the total mortality was 35·19. At Delhi, where not a single case of cholera occurred, the death-rate was 33·15. In the Central India stations, of every 1000 British soldiers, 64·7 were daily sick, 2059 were admitted, and 64·47 died. Of the mortality, 30·18, or nearly one-half, was from cholera. At Agra the mortality was low, only 16·76; but at Morar, the cantonment of Gwalior, it was 119·74 per 1000. In the 103rd Regiment, at Morar, the loss of life amounted to 81·63; in the 1st Battalion 7th Regiment, at Saugor, it was 87·65. The battery of artillery in Gwalior Fortress lost in the proportion of 138·89; and in one of the batteries at Morar the casualties exceeded 185 per 1000. In the Punjaub the admission-rate generally was very high, ranging from a minimum of 1355 at Umballa to a maximum of 3392 at Meean-Meer. It is remarkable that during the epidemic of fever many of the stations which are usually extremely healthy suffered most. At Jullundur the ratio of admissions was 2632, and at Rawul Pinda 2472. The general death-rate was 39·01 per 1000, but was chiefly due to an excessive mortality at some stations. In the large force at Peshawur the casualties amounted to 145·68, and in the small garrison at Gooindghur to 136·75 per 1000; while at Ferozepore and Sealkote the mortality was low, being equivalent respectively to 7·84 and 10·85 per 1000.

The admission-rate from venereal diseases in 1869 was 200 per 1000—almost identical with that of 1868, when it was 199 per 1000. The statistics are more unfavourable than in 1867, when the ratio of admissions was 166 per 1000. The increase is observed in the greater number of stations, instead of being limited to a few, from which unfavourable returns might have raised the average. The attention of Government was drawn to the necessity of a much more efficient administration of the rules already prescribed, and orders on the subject were issued early in 1870. It is, therefore, hoped that subsequent returns may show some decided improvement.

The mortality of the regular native army was higher than in any year since 1860, having amounted to 17·29 per 1000 of the average strength present on duty. The admission-rate was 1501, and daily sick-rate 47 per 1000. Fevers caused 866 admissions in every 1000 men, being a larger proportion than in any previous year, the deaths being 3·66 per 1000. The admissions from cholera were 8·5, and the deaths 4·89 per 1000. Apoplexy caused a greater number of admissions and deaths than usual. Dysentery and diarrhœa were more fatal, although the cases were not actually more numerous than usual.

The admissions from venereal diseases were at the rate of 46 per 1000. Since 1862 the proportion has varied from a maximum of 59 in that year to a minimum of 43 in 1868. At some stations the admission-rate was high—as, for instance, 193 at Dinapore and 156 at Jhansi.

Among the prisoners in the gaols of Bengal, an increase of sickness and mortality occurred, but not to such an extent as might have been expected from the destitution of the native population, which led to crime, increased the number of prisoners, and rendered them more liable to sickness, particularly when overcrowded, as they in many instances were. Considering the generally unhealthy character of the year, the results were less unfavourable than might have been expected, and are considered to furnish satisfactory evidence of the great improvements which have of late years been effected in the sanitary condition of the gaols. The admissions were 1019, deaths 42·81, and daily sick 31 per 1000. Dysentery and diarrhœa caused a mortality of 16·21, and cholera of 6·24 per 1000.

Dr. Bryden's Report on the General Aspects of Cholera in 1869, being a sequel to his history of the epidemic cholera in the Bengal Presidency during 1866-68, is most valuable; but his theory as to the etiology and mode of distribution of the disease will hardly pass unchallenged. He maintains that the theories as to the contagious nature of cholera, its communicability, the poisonous character of the emanations from cholera patients, and the contamination of the water supply from this source, are totally inadequate to explain the phenomena of cholera as an epidemic, and that as the basis of a complete system they are practically useless; also that the theory of importation is incomplete unless the concession be also made that a body of men, among whom cholera has not appeared and shall not appear, may prove the agency by which a province is infected. We, however, think that the establishment of the doctrine as to cholera being simply an air-born miasm, distributed by natural agencies, involves the necessity of disproving, more completely than Dr. Bryden has yet done, the contrary opinions of many observers, both in this country and in India. At the end of the experience of another year Dr. Bryden adheres to the conclusions which he stated in his report of the preceding year, as to the parallelism which may be traced between a particular epidemic and certain others which have preceded it; that this parallelism is influenced by the intervention of natural agencies, through the study of which the time may come when the anticipation of events will be the rule, and the failure to anticipate them the exception. He bases his theory on the truth of three assertions—that the natural Provinces of Bengal are the endemic area of cholera; "that cholera has a distinct existence as an organised object, in subordination to which the phenomena of reproduction, dormancy and final decay occur; and that the control of vital manifestations and also of epidemic progress is exercised by the meteorological agencies prevailing within geographical areas," which in Bengal are clearly recognised and defined, but which have yet to be framed for countries beyond Hindostan. If, in some respects, the anticipations which he had formed respecting the epidemic of 1869 failed of accomplishment, in others they were as signally fulfilled. He considers that although for many years to come the anticipations as to the appearance and spread of cholera may as often be wrong as right, accumulated experience will at length teach us better what we may expect in accordance with the age and geography of the epidemic in progress. He cautions observers against stating dogmatically that because cholera is epidemic it shall follow one definite course or show one definite history. Of future epidemics some will shape themselves after those of 1817, 1855, and 1859, while others will have as their counterparts the outbreaks of 1863, 1866, and 1868. As they occur we shall recognise the resemblance, and may then be able to appreciate better than we have done in the past, the laws under which they assume the forms which they present.

The epidemic of 1869, throughout the stations in the Monsoon area, from Dinapore to Umritsur, almost exactly reproduces the relations of the cholera of 1856, 1860, 1861, 1862, 1865, and 1867. Its appearance was almost universal between July 17 and the end of that month; then followed the universal culmination in August and disappearance before the end of September, except at Meerut and Morar, where six cases were carried into October. Beyond the Monsoon area the parallels of 1858 and 1862 held good, and the anticipation formed by Dr. Bryden in the first week of September, that in the Peshawur valley the invading cholera would not become extinct until the first week of November, was exactly realised.

Dr. Bryden claims to have established the fact that the cholera of 1869 followed no lines of human communication, and that such lines were powerless to modify its geography. He maintains the importance of recognising the typical standard of an epidemic, as a means of determining on the practical measures to be adopted and of attaining a clear understanding of a local or general outbreak. It is of importance to observe the distinction between the localisation and gradual growth of cholera, and its sudden descent in strength upon a locality. The interval between the first manifestation and the actual outburst may be most valuable as an opportunity of entirely evacuating the locality over which the disease is impending. Dr. Bryden considers the failure to connect local outbreaks with water-supply to have been general throughout the epidemic area. The Sanitary Commissioner for the Central Provinces places a very high value upon a pure water-supply as a means of averting the outbreak of cholera; and although he thinks that the excreta of patients suffering from the disease contain the infecting matter of cholera, and that the disease may be communicated by such matter being introduced into the drinking-water, he yet considers it hardly possible that cholera can be rapidly diffused over a wide area by such means.

The outbreaks of 1869 were not in any instance attributed to the use of the regimental latrines. Dr. Bryden does not attach much importance to the influence of attendance on the

sick in producing the disease. A high percentage of attacks among persons so employed, mentioned without reference to the general ratio of attacks, might be employed unthinkingly towards proving the contagionsness of cholera when no such significance can be attached to it.

The terms "importation" and "radiation from foci" are not admitted by Dr. Bryden with reference to cholera. He maintains the disease to be an air-borne miasm. While granting that many secondary manifestations of cholera may occur in relation to human intercourse, he asserts that not one instance in which a district generally is alleged to have been infected from a focus should be allowed to pass without the strictest scrutiny.

The apparent immunity of young children from cholera has attracted the attention of Dr. Bryden. He founds the remark upon the returns of 1869 only, but thinks the fact should be noticed, in order that the results of future observations may be recorded. He finds that the observation was made at St. Petersburgh—on the first appearance of the disease in Russia—that, while in the Foundling Hospitals many of the nurses died, the children entirely escaped.

OUT-PATIENT REFORM AT HOSPITALS AND DISPENSARIES.

THE Committee appointed to report on the reform of the Out-patient Departments met at the Hospital for Women, Soho-square, on Friday evening, the 16th inst., Dr. Meadows in the chair.

Dr. HEYWOOD SMITH brought up a report on the Dispensaries of the Metropolis, which was ordered to be circulated amongst the members of the Committee.

The Committee then resolved that it would be desirable to have a special meeting of the Committee to consider the questions—(1) of payments by patients; (2) of payments to the members of the staff; (3) of the establishment of provident Dispensaries.

Dr. STALLARD gave notice that he would move the following resolutions in reference to these subjects:—

"1. That the principle of accepting small payments from patients at the time of their attendance at Hospitals and Dispensaries ought not under any circumstances whatever to be countenanced—such a practice tending, first, to unfair competition with Medical men who are willing to attend the poorer independent classes on terms suitable to their means; and, secondly, to seriously interfere with the introduction of provident Dispensaries; it being most unlikely that the poor will make small payments during health, if at a neighbouring Hospital or Dispensary they can secure, when ill, advice and medicine by immediate payments not greater than those which must be made at provident Dispensaries when they are also well.

"2. That it is desirable that the Dispensaries should be converted into provident Dispensaries, particularly as this can be done without injury to the class of necessitous poor who are not absolutely paupers. The subscribers to the present Dispensaries can pay the entrance fee demanded of patients when they are actually ill, either by means of a ticket or direct payment, such patients undertaking to become permanent members. The subscribers will thus have it in their power to relieve the present distress, and in doing so will promote habits of providence amongst the labouring poor.

"3. That in order to promote the extension of provident Dispensaries, it is desirable to restrict gratuitous advice and medicine to public Hospitals provided with beds; and that all such Hospitals should be requested to carry out the recommendations adopted by this Committee with the object of diminishing abuse.

"4. That it is not desirable to pay the staffs of Dispensaries not conducted on the provident principle."

The Committee adjourned to Friday, January 6, when the members are requested to meet at the Board-room of the Hospital for Women, Soho-square, at 8 o'clock p.m.

FISKE FUND PRIZES.—The trustees offer two subjects for two prizes of 100 dollars. Essays to be sent to the Secretary of the Fund, Dr. Arnold, Providence, Rhode Island, on or before May 1, 1871, together with a motto and sealed packet containing the author's name. 1. Ununited Fractures: the conditions under which they occur, and the most successful method of treatment. 2. Hydrate of Chloral: its physiological effects and therapeutical uses.

THE MURDER OF ILLEGITIMATE CHILDREN.

(*From a Legal Correspondent.*)

I DO not wish to endorse the severity of the following enactment of the Irish Parliament in the reign of Queen Anne (A.D. 1707); but the principle involved in it—viz., that of checking concealment, and casting the *onus probandi* of innocence upon the suspected party—might perhaps in the present day be accepted, even by an English Parliament, without forming any violent exception to the rule that "every one is presumed to be innocent until the contrary be proved;" as in this particular description of crime the proof of innocence would be within the power of the accused to adduce, which is not always the case in other criminal charges. It would not even be necessary that the witness required for the purpose should have been present at the birth. A Medical man called in shortly afterwards could almost invariably testify to the fact, if such existed, exculpatory of the mother.

In the words of the Act, "to avoid their shame, and to escape punishment," part of that punishment being the burden entailed by the living offspring, women are tempted to conceal not only the birth, but, "either by themselves or the procuring of others, to conceal the *death* thereof;" and this strong incentive to concealment, probably of murder itself ("although hardly it is to be proved), by the mothers, or by their *assent* or *procurement*," requires to be met, if not by so stringent a law as that appended to these remarks, at all events by one equally effective in its operation, though not so sanguinary in its punishment.

The following is a copy of the Act in question. Its aim is directed against the primary and most culpable delinquents—viz., the mothers:—

"5TH ANNE, C. 4 (A.D. 1707), IRISH.

"*An Act to Prevent the Murther and Destroying of Bastard Children.*

"Whereas, many lewd women who have been delivered of bastard children, to avoid their shame and to escape punishment, do secretly bury or conceal the *death* of their children, and after, if the child be found dead, the said women do allege that the said child was born dead; whereas it falleth out (although hardly it is to be proved) that the said child or children were murthered by the said mothers, or by their *assent* or *procurement*; for the prevention thereof of this great mischief, be it enacted that if any woman be delivered of any issue of her body, male or female, which, being born alive, should by the laws of this realm be a bastard, and that she endeavour privately, either by drowning or secret burying thereof, or any other way, *either by herself* or *the procuring of others*, so to conceal the *death* thereof as that it may not come to light, whether it were born alive or not, but be concealed; in every such case the mother so offending shall suffer death, as in the case of murther, except such mother can make proof by one witness at the least, that the said child, whose death was by her so intended to be concealed, was born dead."

NEW BOOKS, WITH SHORT CRITIQUES.

Method and Medicine: an Essay. By BALTHAZAR W. FOSTER, M.D. Churchill and Sons.

*** This is a paper which originally appeared in a volume of essays published by the members of the Birmingham Speculative Club, and is an eloquent and successful attempt to show that method and Medicine are more intimately connected than some have asserted. The writer concludes with these striking words:—

"Now, chastened by repeated failures, we have abandoned all inquiries into final causes, as a search beyond the powers of the human mind, and, concentrating our attention on the laws which regulate the succession and relation of phenomena, we are content to move more slowly and more surely towards that perfect wisdom whence comes perfect action. In this new stage of growth, Medicine, less and less dependent on the blind gropings of empiricism, and no more subject to metaphysical systems, will learn to apply to the great problems of health and disease the invariable laws of science; then the Physician, no longer condemned to contemplate in miserable inaction the progress of a disease whose course he cannot control, will defeat by exact knowledge the subtlest approaches of his foe: 'Homo minister et interpres naturæ, quantum scit, tantum potest.'"

The Modes of Dying and the Means of Obviating the Tendency to Death. By W. F. Cleaveland, M.D.

*** This is the annual address delivered before the Harveian Society by the President. It is an able and clear exposition of the various modes in which death may occur, and comprises death by anæmia, asthenia, carbonæmia (a coined word by the author; but sufficiently clear), and by coma. The questions are discussed with ability and some originality. The anthor concludes as follows:—

"I presnme we all desire to die that death in which the animal life is extinguished before the organic life—the death of old age. Seeing, then, that the great majority of deaths begin at the lungs, should we not take all the care in our power of those treasures in onr chest? Do we act wisely in neglecting, especially in the winter months, an ordinary cold or catarrh, that may run on to bronchitis, leave us a legacy of chronic winter cough, and ultimately allow the enemy to triumph by *carbonæmia?* Should we exhaust our nervous energy by overwork of mind and fatigue of body, so that the golden bowl may be broken, as in apoplexy, or the silver cord be loosed, as in degeneration and ultimate paralysis of the cerebro-spinal nerve-centres, and the fire of life be extinguished through *coma?* Or should we live regardless of hygienic and dietetic rules, so that the pitcher may be broken at the fountain, as when cardiac disorganisation and paralysed right cavities of the heart bring defeat to us in death by *asthenia?* or so that the wheel may be broken at the cistern, as when, in ruptured anenrism of the aorta, we fall by *anæmia?*

Letts's Medical Diary for the Year 1871.
Letts's Monthly or Professional Diary.

*** We have nothing but hearty commendation for Messrs. Letts's publications. The "Medical Diary" is a marvellous specimen of *multum in parvo.* Besides an excellent arrangement for keeping count of all visits, consultations, midwifery engagements, vaccination, etc., the book contains a very large amount of information which a Medical Practitioner may want at any moment—*e.g.*, information as to baths and mineral waters; the average weight and measurement of healthy organs; tables giving averages of spirometrical capacity and the weight of the body; the antidotes for poisons; expectation of life; therapeutical equivalents; the hypodermic injection of remedies; the administration of chloroform; London nursing institutes; the chemical relations of the urine; weights and measures; the recovery of the apparently drowned; an almanac arranged for the calculation of pregnancy. This catalogue speaks for itself. We are certain that no Medical Practitioner will regret the possession and nse of one of Messrs. Letts's Medical diaries. The "Monthly or Professional Diaries," published monthly, of various sizes, are also very nseful memoranda books for busy people. An entire page is allotted to each day's memoranda; and the No. 23 edition will go into the waistcoat pocket.

The Chemists and Druggists' Almanac for 1871.

*** This almanac contains a mass of useful information, and two articles of great merit: one "Pharmaceutical Chemistry, 1870," by Professor Attfield; the other, "Gravimetric Tests of the British Pharmacopœia," by Mr. W. A. Tilden.

GENERAL CORRESPONDENCE.

LEGAL AND NON-LEGAL QUALIFICATIONS.

Letter from Mr. W. G. Laidlaw.

[To the Editor of the Medical Times and Gazette.]

Sir,—A narration of the following facts may be somewhat interesting to your readers, and may, at the same time, warn them against taking for granted that every man who settles in their district and calls himself M.D. is legally qualified:—On reference to the Medical Directories of 1869 (page 488), the following entry appears without any mark to lead the reader to infer that the annual circular was filled up by any other person than the one it purports to describe:—"Miller, William Harte, Brighton-street, Seacombe, Cheshire, M.D. Glasg., 1850; L.A.H. Dub., 1847." Having disposed of the practice which he carried on at the place indicated for some years, "Dr. Miller" settled a few months ago in this township.

In some way or other I had a hint given me that the Doctor was not legally qualified; the above entry in the Medical Directory, however, somewhat staggered me; and, as the best way of getting out of the dilemma, I wrote to Dr. Hawkins on the snbject, and received the following reply:—

"Sir,—In reply to your inquiry, I have to inform you that William Henry Miller, of Brighton-street, Seacombe, is not, and never has been registered. By a very extraordinary accident his residence was at one time erroneously appended in the register to the name of Dr. William Harte Miller, who is resident in India. "I am, &c.

(Signed) "Francis Hawkins, M.D."

I thereupon did not hesitate to state my belief that the said W. H. Miller was not a legally qualified person. This came to his ears, and he sent me the following doenments to prove himself qualified:—

1. A post card from Dr. Sinclair, of Liverpool, on which he is styled Dr. Miller.
2. Two receipts from the Pharmaceutical Society.
3. Two certificates of attendance on midwifery cases.
4. A parchment, in all probability called a diploma, from a "Metropolitan" college (or university) in New York, conferring the degree of Doctor of Medicine! He sends ont bills "for Medical attendance."

When such a thing as the above is permitted, may I ask the nse of our "Medical parliament"? I am, &c.

W. G. Laidlaw, M.B.

Church-road, Tranmore, December 14.

P.S.—In the list of subscribers to the Liverpool Medical and Surgical reports for the present year, I find him designated "Dr. Miller, Seacombe." W. G. L.

*** We must bear in mind that the practice of Medicine is open to all, whether "legally qualified" or not. It will be but fair to Dr. William Henry Miller to give him the opportunity of showing whether he is a "registered" and "legally-qualified" Medical Practitioner, or whether he is entitled so to be. If not, a sense of honour will prevent his doing any act which may seem like the assumption of a status he has no claim to.

BLEEDING IN COMA.

Letter from Dr. C. R. Bree.

[To the Editor of the Medical Times and Gazette.]

Sir,—My experience of forty years does not bear out the opinion of Dr. Richardson, that bleeding is the proper treatment of apoplexy. For the first twenty-five years of my practice, bleeding was the rule. For the last fifteen years I have never bled once, and the results have been more satisfactory—small alas! as any success may have been—than the treatment was in the earlier part of my Professional career. Of all diseases, perhaps sanguineous apoplexy is the one benefited the least by any kind of treatment adopted. But it is of immense importance that the rules of treatment should be laid down clearly, and npon sound and rational foundations; for, if little good is done, much responsibility rests npon the Medical Practitioner; and his fair fame, so easily assailed, is more open to imputation in proportion to the hopelessness of the case. That bleeding may he used without doing harm in apoplexy, or that it may be indicated in some cases, is quite admissible. But the question of questions is, "What is right?"

Many years ago I saw the immediate invasion of sanguineous apoplexy. I was assembled with a large party, at a clergyman's house, invited to dinner. Before dinner was announced, I was reqnested by the host to go npstairs and look at his wife, who was too ill to come down. As I was entering the bed-chamber, I heard the voice of the lady's daughter talking to her mother, who was seated in an arm-chair before the fire. When I had taken my seat before the lady, she was insensible from apoplexy. Surely there never was a case in which bleeding could be of use if not here, and I immediately bled her to twenty ounces. The best consultation in the county was had in a few hours, the treatment approved, and, if I remember right, leeches were applied to the temples; but the patient never became for one moment conscious, and died in eighteen hours. *Ex uno disce omnes* is, I am sorry to say, my reminiscence of such eases during the first twenty-five years of my practice. Now, surely, if bleeding does good, by tending to produce a coagulum, it ought in such a case to have been of service. But does bleeding, in the living body, tend to produce coagulation? or, if it does, is the production of coagula the sound and practical aim of treatment in apoplexy? We must remember that, when a vessel is

pouring out blood into the cavities of the brain, all available receptacles for such blood are almost immediately occupied and filled. The mischief is done, and bleeding cannot remedy it. I confess that my own object in treating the case would rather be to enable nature to remove the coagulum than waste her powers in endeavouring to prevent its formation.

In striking contrast to the case above mentioned, let me relate another.

Ten or eleven years ago, I was called in by Mr. E. Worts, of this town, to see a lady in apoplexy. We decided, in consultation, not to bleed, but to use stimulant enemata. This lady was comatose, and had stertor for forty-eight hours, but under the treatment she recovered, with paralysis of one arm, and lived for ten years afterwards. I never saw her but once after her recovery, and was not called in to see her with her death-illness, but I heard that it was not apoplectic. I believe this lady always attributed her paralysis to her not having been bled; and I went out of favour for ever.

I have the highest opinion of the abilities and researches, as a philosophic investigator, of Dr. Richardson. He is one of the men who have shed lustre upon the science of Medicine. But the treatment of a disease like apoplexy is, of all others, one upon which we form our opinions from experience rather than from theory.

With regard to sun-stroke, my experience is too slight to enable me to form any deductions. Mr. Salter, of Tolleshunt D'Arcy, published, I believe in your journal, a case of such disease successfully treated by bleeding, which seems to have escaped Dr. Richardson's notice. The few cases, however, which I have seen, I have treated successfully by cold douches and brandy-and-water. In warm climates, where the cases are numerous, bleeding has not been found successful. See Dr. Barclay, in "Statistical Sanitary and Medical Reports," 1859, p. 276:—"Venesection was considered wholly inadmissible, and was never employed."

In cases of uræmic coma, I have directed bleeding, in accordance with the strong recommendations of Dr. Richardson in the *Asclepiad;* but I must say the results have not been so satisfactory as they were found by Dr. Richardson. The following case is interesting and instructive:—

I was called in, one Sunday last year, to meet two of the army Surgeons of the garrison here in the case of an officer suffering from uræmic coma. He was a stout, big man, and the subject of albuminuria. Having been a good deal harassed by some anxious duty, his renal symptoms grew worse, and on the morning in question he was seized, at 7 o'clock of the day I was called in, with convulsions and coma. When I saw him, he had been comatose for seven hours, with loud stertor and contracted pupils. He had not been bled; but every effort to rouse him by blisters and sinapisms had been tried. The pulse was small and quick, and I did not advise bleeding. When thinking, however, what could be done, it occurred to me that if we could get more oxygen into the blood, as it passed through the lungs, we should more quickly oxidise the urea by which it was poisoned. Acting upon this idea, I suggested the Sylvester method, as used in recovery from drowning. We got in two soldiers, and set them to work. The result was most extraordinary and unexpected. In half an hour he made an utterance, which showed consciousness was returning. In an hour that consciousness was restored, and I left him sitting up in bed drinking a cup of coffee, two hours after the treatment was begun. As I had previously given an unfavourable prognosis, the result was the more satisfactory. I ought to say he had had two previous attacks of coma during the last two or three years, from which he had recovered, and also that the night previously to the present invasion he had a grain of opium to subdue pain, which, of course, might have complicated the case.

Sir, I hope that men of larger experience will summarise the results of their treatment of coma by bloodletting—one of the most serious subjects to which the attention of the Profession can possibly be called. We can do no greater good to Medical science than by speaking out boldly, without prejudice, and without any misgiving or fear of criticism.

I am, &c. C. R. Bree, M.D.,
Senior Physican to the Colchester Hospital.

Colchester, Dec. 19.

Royal Medical and Chirurgical Society.—A Surgical President will be nominated and elected at the annual meeting. The names under consideration are those of Mr. Quain, Mr. Curling, Mr. Paget, and Sir William Fergusson.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 13, 1870.

Dr. Burrows, F.R.S., President, in the chair.

A paper by Mr. William Sedgwick was read on

TEMPORARY GLYCOSURIA AS A SEQUEL OF CHOLERA.

After a brief historical retrospect of the subject, the author remarked that in studying the character of the urine in cases of cholera, attention should in the first instance be directed to the fact that the first and albuminous urine passed or withdrawn after the usually prolonged suppression of the secretion was usually deficient in urea, and free from sugar; and that the subsequent condition of temporary glycosuria was preceded by the occurrence of a blue colouring matter, which appeared to be intimately associated with saccharine transformation. It was a significant fact that sugar in the urine occurred not, as a rule, in the first urine secreted after a more or less prolonged suppression, but subsequent to the occurrence of albumen; and that whilst there was during the early stage of cholera convalescence a relative deficiency of urea when albumen was present, sugar, on the contrary, was associated with urea in excess. The deficiency of urea which occurred in connexion with the albuminous urine of cholera was the more noticeable from the fact that, as the amount of urine secreted within a given time, after the previously complete suppression of it, was small, the proportion of urea should have been relatively increased if the development of that organic principle in the system had been uninterrupted; and consequently it might be suggested that as urea had been found to be one of the best diuretics, the suppression of urine which occurred in cholera and in allied conditions of the system resulting from poison or from disease, admitted of being directly referred to temporary arrest in the formation of that excrementitial product. The production of the blue colouring-matter in the urine of patients suffering from cholera was chiefly important from the fact that it was very closely associated with the development of glycosuria; the occurrence of sugar in the urine in such cases appearing to be simply a somewhat later stage in the series of pathological changes, which, so far as they affected the urinary secretion, could be traced to one common origin. Attention was directed to the frequency of the occurrence of a blue colouring-matter in the urine in a great many other diseases which, like cholera, admitted of being more or less directly referred to the alimentary canal; and it might be suggested as probable that, as sugar had also been found in the same class of cases, those two abnormally increased, if not altogether abnormal, constituents of the urine were due to the same cause, and derived from the same source. In reviewing the pathology of the urine in cholera, the chief facts to which attention should be directed, with reference to the occurrence of glycosuria, were—the suppression of the urinary secretion as a primary result of the disease, with arrested formation of urea; albuminuria, with deficiency of urea; the presence of a blue colouring principle; and finally, diuresis, with excess of urea and sugar in place of albumen. In the sequence of phenomena there indicated, urea as the essential principle of the urine necessarily occupied the chief position; and the subsequent presence of sugar during the stage of convalescence, when albumen was no longer present in the urine, suggested that the temporary glycosuria of cholera might be due rather to the progress of reparation than of destruction, and that it was, as it were, the result of an excess of restorative effort on the part of the system to repair loss from previous disease. This suggestion derived support from what occurred in diabetic patients during an attack of fever, when sugar in their urine was apt to be replaced by albumen; and by what occurred in the same class of patients during the last agony, when a similarly retrograde course with respect to the pathology of the urine was pursued—for in them also the urine became albuminous, and the sugar disappeared; and it was, moreover, supported by a large amount of collateral evidence which was almost conclusive in its favour. It would be found useful, in studying the character of the glycosuria which had been observed during convalescence from cholera, to take into consideration the various physiological, pathological, and artificially produced states of the system in which, as in cholera, sugar was commonly present in the urine without giving rise to confirmed diabetes. For temporary glycosuria, like the pre-

vious suppression of urine, had no claim to be regarded as an exceptional phenomenon, which was in any way characteristic of cholera; but, on the contrary, it would be found to occur during convalescence from other forms of acute disease, in which it was often associated with the previous development of a blue colouring principle in the urine. It would be found, also, to occur, apart from disease, as a physiological condition during certain stages of development, and at certain epochs of life. And, finally, that it admitted of being experimentally produced. With reference more especially to the occurrence of temporary glycosuria in the latter class of cases, as a result of sympathetic nerve section, the author remarked that in all experiments of that kind the primary effect produced must be on the vascular system to which the branches of the sympathetic nerve were distributed, and that any effect produced on other parts of the organism must be secondary to that. Consequently, whilst recognising vascular paralysis as the primary result of section of the sympathetic nerve in all parts of the system, it was important to notice that in the secondary results produced no such constant uniformity had been observed, since these were liable to vary according to the locality in which the experiment had been performed. He was of opinion that, with regard to the occurrence of temporary glycosuria as a sequel of cholera, there was no fact in experimental physiology more significant than that observed by Eckhardt in 1867, of the absence of sugar from the urine after section of the splanchnic nerves, which, taken in conjunction with the fact observed by Moreau in 1868, that section of those nerves was followed by an intestinal flux, possessing the same characters as the flux of cholera, indicated very clearly the direction in which the inquiry should be pursued. For when the neuro-paralytic condition of the digestive canal so produced was compared with what occurred after the influence of the central portion of the sympathetic nervous system had been artificially increased by the application of galvanism or electricity to the part during life, as shown in MM. Linati and Caggiati's experiments, it would be found that the results then obtained were essentially opposed to those which followed arrest or diminution of that influence, either from section of the nerves or from cholera. In conclusion, the author remarked that the temporary glycosuria which had been observed in all the various cases which he had cited might be regarded as a consequence of long-continued and immoderate secretion, consequent on a previous diminution or arrest of the influence on the sympathetic or vaso-motory nervous system, which apparently occupied a position functionally midway between the secretory surface on the one side, and the supply of blood on the other, and thus became the moderator of secretion in virtue of its action as controller of the circulation. From his observations on the subject, he had been led to infer that all secretion was associated with saccharine transformation; and that whilst, on the one hand, an excess of secretion was accompanied by a corresponding excess in the formation of sugar, and consequent glycosuria, a moderate exercise of secretory function was, on the other hand, accompanied by a correspondingly moderate formation of sugar, which was not more in amount than could be disposed of in the system; and that it was only when the blood contained sugar in excess, from such causes as those which had been already referred to, that some of it was in consequence eliminated by the kidneys. Consequently it might be urged that the temporary glycosuria, which occurred as a sequel of cholera, served to show that during reaction from previous collapse there was a temporary excess of restorative effort; and that although, as was well known, an abortive attempt at reaction was in that disease a very common cause of death, yet in those cases of cholera which terminated favourably, and in which glycosuria had been observed to occur during convalescence, the subsequent disappearance of sugar from the urine might be accepted as evidence in favour of the normal balance of organic function having been satisfactorily restored, and that the tendency to excess during recovery from a central arrest of nutrition had ceased.

Mr. Perring asked how it was possible to remove the cœliac ganglion without greatly affecting the system.

Dr. Symes Thompson said that during inflammatory fever the sugar of diabetes was apt to cease or to be diminished. This suggested a mode of dealing with the disease which might be feasible by establishing an artificial inflammation, as by a seton. In his case a deep-seated abscess round the kidney was the cause of the diminution of the sugar.

Mr. Sedgwick said the operations referred to were Schiffs. He was quite aware such experiments had only a certain value. The observations chiefly relied on were Moreau's. He did not think Dr. Symes Thompson's suggestions would answer.

CLINICAL SOCIETY OF LONDON.

Friday, December 9.

Mr. Paget, President, in the Chair.

Sir Henry Thompson exhibited a patient on whom an operation had been successfully performed for the loss of a large portion of the urethra. The man had been the subject of large extravasation of urine, distending the scrotum, and rising above the pubes, whence it was evacuated by free incisions. The resulting sloughing destroyed the skin of the penis, and a full inch of the urethra, just anterior to the scrotum. When the neighbouring parts were sound, Sir Henry, having introduced a grooved staff into the bladder, opened the urethra in the perineum, and passed a gum-elastic catheter through the wound into the bladder, and retained it permanently. He then broadly pared the margin of the wound, dissected a large flap from the side of the scrotum, and placed it in good apposition upon the raw surfaces, attaching it with silk sutures, and covering in completely the urethral wound. All the urine now flowed by catheter into a vessel, and, in a few days, firm union had taken place, except at one small spot. The catheter was changed in a fortnight, and the second one was retained for five weeks. On removing this, the perineal wound speedily closed, and a No. 8 catheter could be passed through the entire urethra into the bladder. The patient had since learned to do this for himself. There now remained only a very small orifice, which could be readily closed by galvanic wire, or by some small plastic operation. Sir Henry dwelt upon the importance of a constant free evacuation of the urine in these cases, so as to bring about a state of quietude to the diseased passages; and for this purpose he was in the habit of insisting upon the patient acquiring for himself the habit of drawing off his water by catheter. The great bar to success, he thought, had almost invariably been the presence of urine percolating, at every act of micturition, between the fresh surfaces newly adjusted by the Surgeon. The procedure adopted in the present case had been adopted on two occasions in France, by Sègalas and Ricord.

Mr. Heath was struck at the time with the great width of surface raised at the operation. This was, perhaps, the cause of its success, for men were too apt to think of the edges of the urethra at the time of operation. It further showed that a very valuable urethra might be formed of skin alone.

Mr. Lee remarked that skin might be converted into mucous membrane, or *vice versâ*, as in piles. Here apparently the skin had become mucous membrane.

Mr. Heath said it was the deep surface of the skin which was here in question, not its epidermal surface.

Sir Henry Thompson thought Mr. Heath had hit the point. The amount of surface he now made raw was double of that he originally used to. He further brought the raw surface close up to the edges of the urethra, so that no pockets might be left.

Mr. T. Smith read a paper "On the so-called Congenital Tumour or Induration of the Sterno-Mastoid." This had been surmised to be an adventitious growth by some, and a syphilitic deposit by others. Its real nature had never been determined, so far as he was aware, by post-mortem examination. The supposed explanations Mr. Smith had reason to believe incorrect; and he thought the induration was probably due to rupture, either partial or complete, of the fibres of the sterno-mastoid, giving rise to effusion of blood within the sheath of the muscle, and to retraction of the torn fibres. Such rupture he referred to injury during parturition, especially when this was complicated by version and extraction.

Mr. Teevan said this kind of tumour was first noticed by Sir Astley Cooper. It was supposed to be due to injury to the muscular coat in labour. In two cases he had recently seen, they got well spontaneously.

A paper by Dr. Handfield Jones, entitled "A Query as to the safety of Subcutaneous Injections," was read by the Secretary. Three cases were described, in which the injection of small doses of morphia or opium ($\frac{1}{6}$ gr. of morphia in the first case, ♏v. of liquor opii in the second, and $\frac{1}{24}$ gr. of morphia in the third) had been followed by more or less serious fainting. Reference was made to published cases of serious symptoms following subcutaneous injections of morphia. He suggested the subject as one upon which the Clinical Society might use-

fully bring their experience to bear, especially with the view of discovering whether there were any objective signs of the state in which opium was not tolerated, and whether such a state might exist at one time and not at another. He thought it very desirable to ascertain whether morbid changes in the valves or muscular tissue of the heart increased the liability to the occurrence of syncope, or whether this was chiefly dependent, as chloroform-syncope seems to be, on some latent infirmity of the cardiac nervous centres.

Dr. Southey said there was a case in St. Bartholomew's six months ago which illustrated the risk of injection. A woman had been accustomed to take morphia by the mouth for the relief of pain. One-sixth of a grain was ordered to be given by the skin; this proved fatal in half an hour. He thought that it could be used safely in very few cases of dilated heart.

Mr. Harry Leach said that, in delirium tremens, they generally, at the Seamen's Hospital, gave placebos; but, in a particularly noisy case, some time ago, he injected one-sixth of a grain of morphia, and that was the only case which within his recollection had proved fatal.

Mr. C. Hunter said the liquid should be injected slowly. He had seen no danger, nor did he understand why it should not be used in heart disease. In point of fact, he had seen it do good. The state of the kidneys should be attended to. He remembered a case of phosphatic diathesis, where there seemed to be some danger after injection.

Mr. Henry Lee thought the quantity given too large in those cases where there seemed to be danger. Entrance into a vein would hasten and intensify the effect of the agent. They might guard against this, and cause the veins to collapse, by partial withdrawal of the needles.

Mr. Carter said Von Graefe used morphia in this way very largely. He injected slowly, and when a portion had entered he tried to withdraw it. Entrance into a vein caused narcotism like a flash of lightning. He had never seen any bad effects himself.

Dr. Dyce Duckworth had seen one fatal case in the person of a delicate young man, aged 21. He suffered from pain in the left hypochondrium. For its relief a small quantity of morphia was injected. He became faint and cold. After reclining on the sofa for a time he got better, but he died in fourteen hours, with slight hæmorrhage into the brain.

Mr. Barwell had seen no bad effect, except in one from the puncture alone.

Dr. Buzzard said a good deal of the faintness arose from actual pain on penetration, and on that account he advised a steel needle to the syringe. He had seen a case where great toleration was shown. A lady had begun with a quarter of a grain, and ended with thirty-two grains every twenty-four hours. Last year her dose was twenty-five grains. He injected nearly five grains, and that produced only slight contraction of the pupil. She complained of the smallness of the dose.

Mr. C. Hunter thought this same lady had been under his care. Any risk from air entering veins would be obviated by introducing more fluid into the syringe than was wanted. There was no pain if glycerine was used as a solvent.

Mr. Paget thought it might be worth while to appoint a committee to investigate the subject, and nominated for that purpose Drs. Handfield Jones, Burdon Sanderson, Buzzard, and Mr. Barwell.

Dr. Handfield Jones said he did not seek to throw cold water on the practice, but certain cases had raised a doubt in his mind, and he came to the Society to have it solved. Dr. Clifford Allbutt's experience was clean contrary to his own.

A report was read upon Mr. T. Smith's case of "Ulcer following Vaccination," by Messrs. Gascoyen and Berkeley Hill.

Mr. Henry Lee said that as far as details went, the case could be hardly more satisfactory. There were one or two points to be noticed. These were, that there were no enlarged glands in the axilla; but irritation about the deltoid produced enlargement of the subclavian glands, and one of these was distinctly affected. The sore was raised instead of being depressed; but this was not unusual with chancres in abnormal situations, as the cheek and breast; where this was so induration was not strongly marked. There was no doubt of its being syphilis, nor did he think its origin accidental.

Mr. Spencer Watson said the sore resembled one he had seen from a bite in the cheek. There was there some induration, but not as in a Hunterian chancre.

Mr. Paget said there was a possibility of inoculation after vaccination; yet it was clear the child was syphilitic.

Dr. Greenhow thought the child's history ought to be better examined.

Mr. Smith said the examination might have enlarged the glands from irritation alone.

Finally, on the motion of Mr. B. Carter, seconded by Mr. Lee, the discussion was adjourned.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, December 7.

Dr. Graily Hewitt, President, in the Chair.

The following gentlemen were elected Fellows of the Society:—R. C. Appleton, M.R.C.S., Beverley; W. Chapman Grigg, M.D., Freeman Izod, M.R.C.S., Tottenham; and William Summer Hayes, M.R.C.S., Ealing.

A report on Dr. Hall Davis's specimen of Extra-uterine Fœtation, exhibited at the November meeting, was read.

Dr. Loyd Roberts, of Manchester, exhibited drawings of cases of Spina Bifida.

Mr. J. T. Mitchell read a paper "On a Case of Extraordinarily Protracted Labour of more than six days duration, the consequence of the unrelieved impaction of an immense hydrocephalic head—necessitating craniotomy—which had been too long delayed." Mr. Mitchell's paper gave a detailed account of the case, and of the very serious symptoms attending it. He then dwelt on the importance of early delivery in cases of impaction, and drew various conclusions as to the proper course to pursue in cases of this kind. The patient whose history was narrated made a good recovery.

Dr. Barnes read a paper describing a new form of Suture to be used in cases of Cæsarian section. It was intended, not only to close the uterine wound, but to bring and keep it in close apposition to the peritoneum. It was arranged so that it might eventually be withdrawn per vaginam.

Dr. Braxton Hicks thought Dr. Barnes's plan very ingenious, and that it would probably be found preferable to that of drawing out the sutures externally. He (Dr. Hicks) had been the first to recommend the plan, and also to put it into practice in a case described before the Society. Since that, it had been advocated in France. So far as his case showed, it appeared satisfactory, for, although there was severe vomiting, the contents of the uterus were not extruded into the peritoneal cavity.

A paper was read by Mr. Cullinworth, of Manchester, on "A Case of Pelvic Cellulitis, noted with special reference to the Temperature." This paper gave a full account of the case, and contained a carefully recorded thermometrical chart constructed from observations taken during its progress.

Dr. Wiltshire read a paper on "A Case of Fibro-enchondromatous Tumour complicating Pregnancy." The patient had a hard tumour about the size of a pudding-basin, springing from the right ilium and parts adjoining, and projecting into the abdominal cavity. The fœtal head being well below the tumour, Dr. Wiltshire decided to let the pregnancy go to full term, when the patient was comfortably delivered of a fine and apparently healthy child by the natural efforts. The chief points of interest about the case, in addition to the complication of pregnancy by a tumour of such an unusual character, were the missing for the first time in the patient's life of two catamenial periods immediately prior to conception, which might have led to deplorable results had premature labour been induced on such data, and the fact that although the mother was and had always been in perfect health, her infant died at the age of seven weeks from congenital syphilis. The paper contained a complete thermometric record of the case, which, Dr. Wiltshire stated, presented a type of the normal thermometrics of the puerperal state, the rise at the advent of lactation, and the fall on the establishment of that process being well marked. The author, in some remarks on the pathology of enchondromas, suggested that if cysts were found in them, and it became necessary for obstetric reasons to puncture one or more, it would be well to use a canula of large bore, the contents of such cysts being thick and viscid.

Dr. Martyn thought that a quick pulse and high temperature setting in about the third day pointed rather to puerperal fever than to lactation, and that such a condition depended mostly on offensive lochia. A turgid state of the mammæ might cause some degree of fever, but when the temperature and pulse rise, in the degree mentioned by Dr. Wiltshire, it is due to contamination from offensive discharges. Such fever might subside quickly, but the injection into the vagina of some disinfectant is the best means of securing this result. He (Dr. Martyn) had endeavoured to show, in a paper read at

the last meeting, that the fever met with on the third day of childbed, so commonly called milk fever, is always associated with offensive lochia.

Dr. Routh thought that Dr. Wiltshire had given an unusual example of fibroid disease. He was anxious to know if the tumour had enlarged *pari passu* with the uterus. A uterine fibroid generally increased under the impetus of pregnancy, and after delivery again diminished in size, and sometimes became smaller than before. His own experience was that in such cases, about the third or fourth month, miscarriage generally occurred, owing to the interference of the tumour with the due development of the uterus. With regard to the non-presence of syphilis in the mother, although the child and father were affected, Dr. Routh believed that the woman might have had uterine syphilis, and so it had escaped observation. Indeed, this variety of syphilis was often overlooked, and even when observed the induration of the cervix was often called carcinomatous. The fact of her not having secondary symptoms might be due to her strong health. It was well known that syphilitic eruptions and other secondary symptoms often did not appear until the patient's health deteriorated. He could endorse Dr. Martyn's opinion that a pulse of 120 generally indicated incipient puerperal fever. He had often seen cases with great milk fever one day, and when the secretion was established all the symptoms subsided, and the pulse fell to 80, or even lower, the lochia, carefully observed at the time, giving no indication of smell or anything abnormal.

Dr. Edis said he could endorse Dr. Wiltshire's statement as regards the increase in the frequency of the pulse at the time the milk was distending the mammæ. He had noticed that an initiatory rigor, an acceleration of the pulse, and an increase in the temperature, were by no means infrequent about the end of the second, or commencement of the third day after parturition, not explained by any other complication, the pulse and temperature returning to their normal standard as soon as the secretion of milk was established.

Dr. Ballard said that, in reference to the rise in temperature, the feverishness was mainly caused by the irritation which resulted from putting the child to the breast before the milk was secreted. His experience proved to him that this did not occur if sixty hours were allowed to elapse before suckling was commenced. He asked what were the symptoms that indicated that the child was syphilitic? Dr. Wiltshire had only mentioned some spots on the skin, and some snuffling; there were no symptoms of syphilis in the mother, and the child was not cured by mercury. He (Dr. Ballard) thought the indications of infantile syphilis were rather vague. He had been long searching for a specimen of infantile syphilis, but in vain.

Dr. Wiltshire, in reply, said that the child had inherited syphilis from the father. The exaltation of temperature on the third day was no doubt due to the establishment of lactation. In reply to Dr. Routh, he said that the tumour not being uterine, but attached to the pelvis, he expected it to undergo alteration. As the tumour did not extend into the lower pelvis, premature delivery was not called for. The mother had never shown the least symptom of bad health, and, therefore, could not be supposed to be the subject of syphilitic disease. He, however, assured Dr. Ballard that there could be no doubt of the child being affected with that disease, as it had mucous tubercles, shining spots, snuffles, etc.

MEDICAL SOCIETY OF LONDON.

Monday, December 5.

John Gay, Esq., F.R.C.S., President, in the Chair.

Mr. Streeter related a case of Nocturnal Incontinence of Urine in a young lady, aged 17 years, which has existed for four years, and which had been cured by tincture of belladonna in five-drop doses three times daily. The dose was subsequently reduced to two drops, and Mr. Streeter believes the cure to be now complete.

Mr. De Meric could testify to the value of tincture of belladonna in the incontinence of urine in children; he gave this remedy in as small a dose as possible, as he did not like giving such powerful medicine to young children. In one family of four children, every one was afflicted with nocturnal incontinence; here belladonna was found a good remedy.

In reply to the President, Mr. Streeter could not say how many drops of the tincture would be equal to a grain of the extract. The tincture he used had been kept for seven years. He did not think there was paralysis of the neck of the bladder in these cases. The affection often occurred in strumous children, and Mr. Streeter had found iodine set free from iodide of potassium by a feeble acid—as, for example, by the slight excess of acid in the spiritus etheris nitrosi—a useful remedy. Some vinum ferri might be given with this form of iodine.

Dr. Brunton then read the paper of the evening "On Prolapse of the Funis Umbilicalis, and its Treatment by the Postural Method." The author reviewed the method of treatment advocated in obstetric works, and showed that all of them were deficient in applicability and in good results when compared with the postural method. He reviewed the difficulties that stood in the way of the ordinary method, and showed how absurd it was to think of carrying about an instrument for the reduction of the prolapse, when that accident occurred about once in 276 confinements. He showed how the postural method was in accordance with the principles of common sense, and was always applicable, the hand being the only instrument required; there was no danger to the mother, as in version, and out of ten cases thus treated by him, eight children were born alive. Of the two that were dead, one died before he arrived, and in the other case there was an extensive disease of the placenta. The operation consists in altering the direction of the uterine axes or planes, which is downwards and backwards when the mother lies on her back, and nearly level when she is in the usual obstetric position. By placing the mother on her hands and knees, in the attitude of an Eastern worshipper, the axis is made to pass upwards and backwards; then the cord can be returned by the hand during the intervals of pain, or by its own weight it slips up beyond the head. The fingers are made to irritate the os uteri by rotation till a pain comes on; then the lower segment of the uterus clutches the head or presenting part firmly, and no prolapse occurs. The difficulty being thus overcome, the patient can now assume the usual obstetric position. Dr. Brunton showed some of the instruments usually employed for the reduction of the cord. He illustrated his subject by drawings, and suggested a modification of the postural method; by applying the same principle (the action of gravity) in the usual obstetric position, when the uterine plane had been altered by propping up the pelvis by pillows, was to give the uterine plane an inclination by which the cord might slip up. Dr. Brunton had not seen the postural method described in the manuals of obstetrics, except cursorily as the knee-elbow position; were the method more generally known and followed, infant mortality in cases of prolapsus funis would be reduced to a minimum.

Dr. Routh said he believed that it was at one of the meetings of the British Medical Association that he heard the late Sir James Simpson say that the treatment of prolapsus funis by the postural method originated with Dr. Hamilton, of Edinburgh. Dr. Routh was content to use merely the postural method, without any aid from the fingers, and had been uniformly successful. In one case the patient had convulsions, and these were brought on by the slightest touch of the hand in the vagina; here, on placing the patient on the knees and elbows, not only did the funis return, but the convulsions also ceased.

Mr. Streeter was acquainted with the postural method of treatment as far back as 1842. He did not agree with Dr. Brunton as to the action of the lower segment of the uterus in keeping up the cord; he believed the cord had a certain elasticity of its own, by virtue of the circulation in its vessels, which kept it up. When this circulation ceased in death the elasticity of the cord was gone.

Dr. Brunton, in reply, said it might be a valuable aid to the treatment of convulsions to change the position after the plan that had proved so successful with Dr. Routh.

ASSOCIATION OF CERTIFYING MEDICAL OFFICERS OF GREAT BRITAIN AND IRELAND.

Friday, September 23.

J. T. Arlidge, M.D., President, in the Chair.

The third annual meeting of this Association was held at the Great Northern Hotel, King's-cross, London. The following gentlemen were elected officers for the ensuing year:—*President:* J. T. Arlidge, M.D., Stoke-on-Trent. *Vice-Presidents:* F. Jordon, Esq., F.R.C.S., Birmingham; Wm. Roden, M.D., F.R.C.S., Kidderminster. *Treasurer:* Edward Waters, L.R.C.P., Coventry. *Secretary:* G. M. Stansfeld, Esq., Bristol. A committee, consisting of twelve members, was also elected.

The annual Address was delivered by the President-elect, Dr. Arlidge, and was ordered to be printed in the annual Report of the Association.

The committee, in their report for the past year, had no special matter to bring before the Association, excepting the singular plan of Mr. Inspector Redgrave to place the principal sanitary works of the Kingdom under the jurisdiction of the Factory Office. They also wished to direct attention to the Half-yearly Report lately issued by the factory inspectors, an epitome of which, referring more especially to Certifying Surgeons, and to certain amendments proposed in the factory laws, and also embodying certain statements respecting the duties of Certifying Surgeons, and the manner in which those duties are performed, is added to the annual report of the Association for the past year. In connexion with the question of the utility and efficiency of Certifying Surgeons, the committee wished earnestly to call attention to the recommendation made last year, that Certifying Surgeons note the rejections of children and young persons on account of bodily infirmity and disease, and prosecute inquiries relative to the effect of labour on the operatives in different kinds of manufactures, and, in general, to note the hygienic and physical condition of the working classes. The members of the Association are earnestly entreated to induce Certifying Surgeons throughout the kingdom to join the Association, by pointing out the necessity for united action in maintaining and improving their status and usefulness in the administration of the factory laws, and the more so, in face of the suggested alteration of those laws, as contained in official reports, and of the impending reorganisation of the sanitary work of the kingdom. In conclusion, the committee beg to suggest that steps be taken to testify to Mr. Inspector Baker the high esteem of the Medical officers employed under the Factory Acts for his unwearied and able assertion of the value of Professional supervision in the administration of the sanitary clauses of those Acts, and of the desirability of increasing the extent of that supervision.

In order more fully to carry out the foregoing suggestion, it was proposed by Dr. Arlidge, and seconded by Dr. Roden —"That a testimonial be presented to Mr. Baker, by means of subscriptions raised from all Certifying Surgeons, and that a sub-committee be appointed to carry this resolution into effect."

It was further proposed by Dr. Roden, and seconded by Mr. Underhill—"That the amount of individual subscriptions do not exceed one guinea, as it is presumed that the testimonial would be more acceptable to Mr. Baker if raised by the large body of Certifying Surgeons, than if it were the result of larger donations from the few."

The Treasurer and Secretary (Dr. Waters and Mr. Stansfeld) were appointed as the sub-committee (with power to add to their number) to carry out the above resolution.

Various other resolutions were proposed and adopted.

OBITUARY.

THE LATE REV. J. B. READE, F.R.S.

We regret to have this week to record the death of one who, though not of our own Profession, was so allied to us in work and sympathy as to seem almost to belong to us. We refer to the President of the Royal Microscopical Society, the late Rev. J. B. Reade. Mr. Reade, who came into the world with the century, died on Monday week last at his rectory at Bishopbourne, near Canterbury. He was one of those scholastic clergymen whose minds bend naturally to science, and he made more advances in science than fall to the lot of many. He was an excellent experimentalist, an astronomer, a photographer, a microscopist, and a physiologist. He claimed to have been the first experimenter who took photographic pictures, in advance on the process of Daguerre. He made many improvements on the microscope; he was one of the first in investigating the properties of iodine, and in 1847 he discovered that ammonia was a product of animal respiration.

At the anniversary meeting of the Royal Microscopical Society of the present year (February 9), Mr. Reade, in an able address, discussed the subject of life, and we quote what he then said as illustrating the breadth of his views and the perfect freedom of his mind:—"Then, as to the question, What is life? This much we know, on the highest authority, that life is the direct gift of the Creator to the living creatures of His hands, and for perfect knowledge we must wait for the perfect day, when 'we shall know even as also we are known.' Meanwhile, the conscientious observer is amply justified in investigating the law of life as well as the law of gravitation, telling us, as it may seem to him, what it is and how it acts; and if he advance no farther than a plausible hypothesis, he may thereby direct us truthward though he reach not the goal himself. We can place no limit to legitimate inquiry, nor refuse a hearty reception of well-established facts. At the same time let us bear this in mind, *humanum est errare*, and it may be that universal error is received as practical truth, but truth is not error for all that."

Mr. Reade suffered from many months of illness, and sank at last gradually and calmly. He was attended from the first of his illness by Dr. Richardson, with whom he has been for many years on terms of closest friendship, by a still older friend, Dr. Millar, of Bethnal-house, Mr. Sheppard, of Canterbury, and Mr. Sicard, of Bridge.

MEDICAL NEWS.

Royal College of Physicians of London.—At an extraordinary meeting of the College, on Monday, the 19th inst., the following gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were granted licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery:—

Air, Alexander Cummings, M.R.C.S., 33, Lorrimore-square, S.E.
Evans, Ernest Richard, M.R.C.S., St. Bartholomew's Hospital, E.C.
Evans, Samuel, M.R.C.S., 23, Manchester-street, W.
Hughes, John Howe, M.R.C.S., Gosforth, Carnforth.
Kipling, William, M.R.C.S., Ronaldkirk, Darlington.
Pittock, Francis William, M.R.C.S., Trentham-villas, The Elms, Ramsgate.
Risdon, Alfred, M.R.C.S., 67, Warwick-street, S.W.
Saunders, William Egerton, M.R.C.S., Guy's Hospital, S.E.
Vasey, Charles Lyon, M.R.C.S., 5, Cavendish-place, W.

Apothecaries' Hall.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday, December 15, 1870:—

Wade, George Herbert, Plymouth.

As Assistants in Compounding and Dispensing Medicines:—

Fegan, John, Torquay, Devon.
Parker, John Samuel, Peterborough.

The following gentlemen also on the same day passed their First Professional Examination:—

Duke, Maurice S., Guy's Hospital.
Graham, George William, Guy's Hospital.
Hacon, Walter Edward, Guy's Hospital.
Hirst, Albert, Manchester.
Skaife, Frederic, St. Bartholomew's Hospital.
Whitmarsh, John Lloyd, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Mackenzie, Morell, M.D. Lond., M.R.C.P.—Senior Physician to the Hospital for Diseases of the Throat, Golden-square, W., *vice* Dr. Patrick Fraser, resigned.

Prossea, James, M.D., M.R.C.P.—Physician to the Hospital for Diseases of the Throat, Golden-square, W.

Semple, R. N., M.D., M.R.C.P.—Physician to the Hospital for Diseases of the Throat, Golden-square, W.

MILITARY APPOINTMENTS.

The following appointments have been made:—To be Surgeons: Assistant-Surgeons Thomas Smith Barnett, Patrick Francis Keelan, and Denis M'Carthy. Assistant-Surgeon Henry Normand M'Laurin has also been promoted to the rank of Surgeon, with seniority of August 19, 1870.

BIRTHS.

Clark.—On December 18, at 16, Cavendish-square, the wife of Dr. Andrew Clark, of a son.

Cope.—On December 19, at Broad-green, Croydon, the wife of Walter H. Cope, M.R.C.S. Eng., etc., of a son.

Eastes.—On December 16, at 5, Albion-place, Hyde-park-square, the wife of George Eastes, M.B., of a son.

Hampshire.—On November 26, at Malacca, Straits Settlements, the wife of F. K. Hampshire, M.D., of a son.

Hughes.—On December 15, at 4, Great Mersey-street, Kirkdale, Liverpool, the wife of Ebenezer Hughes, M.D., of a son.

Mactier.—On December 9, at Strom House, Blairgowrie, Perthshire, the wife of W. F. Mactier, M.D., late Bengal Service, of a daughter.

Rogers.—On November 19, at Malabar-hill, Bombay, the wife of Adam M. Rogers, Surgeon H.M.'s Bombay Army, and Presidency Surgeon, Bombay, of a son.

MARRIAGES.

Bellamy—Legg.—On December 15, at St. Peter's, Pimlico, Edward Bellamy, F.R.C.S., to Emilie, youngest daughter of George Legg, Esq., of Westbourne-place, Eaton-square.

CARR—BENT.—On December 15, at St. Leonard's Church, Exeter, J. King Carr, M.D., Surgeon-Major Royal Artillery, to Frances Rebecca, third daughter of Major Bent, Exeter, late of Wexham Lodge, Bucks.

DALTON—JENNINGS.—On November 9, at Christ Church, George Town, Demerara, Henry Dalton, M.B., C.M., eldest son of Dr. H. G. Dalton, of that city, to Grace Speight, only surviving daughter of the late Thomas Jennings, Esq., Leeds, Yorkshire.

DAVIS—HICKIN.—On December 14, at Trinity Church, Rhyl, Robert Davis, Surgeon, Llanfairtalhaiarn, to Jane Whitby, daughter of the late Rev. Wm. Hickin, of Ellenhall, Staffordshire.

FAIRLAND—THOMSON.—On November 3, at All Saints' Church, Lucknow, Oude, Edwin Fairland, M.D., Assistant-Surgeon, 21st Hussars, to Emma Maggie, only surviving daughter of the late Major-General W. B. Thomson, C.B., Bengal Army.

GODRICH—RUMSEY.—On December 17, at the Holy Trinity, Brompton, Thomas Godrich, M.D., to Clara, youngest daughter of the late Arthur Rumsey, Esq.

YEARSLEY—FLETCHER.—On December 17, at St. George's, Hanover-square, James F. Yearsley, B.A., barrister-at-law, of the Inner Temple, younger son of the late James Yearsley, M.D., of 15, Savile-row, Burlington gardens, to Edith Isabel Barbara, only daughter of the late William Henry Fletcher, Esq., of Gloucester.

MARTLAND—WADDINGTON.—On December 15, at St. John's Church, Blackburn, Lancashire, William Martland, M.R.C.S., St. John's-lodge, Blackburn, youngest son of the late Richard Martland, M.D., and J.P. for the county of Lancaster, to Margaret Elizabeth Yates, Rockwood, Blackburn, only daughter of William Waddington, Esq., Bank Cottage, Burnley.

DEATHS.

ALDERSON, ALBERT EDWARD, infant son of Frederick H. Alderson, M.R.C.S.E., of Hammersmith, on December 14, aged 60 hours.

ALLEN, J. BEDFORD, Civil Surgeon, of Patna, H.M.'s Indian Medical Service, at Bankipore, of cholera, on July 11, aged 42.

BARKER, ANNE, relict of Richard Barker, Surgeon, late of Hungerford, Berks, at her residence, Beaufort West, Bath, on December 12, aged 85.

BARKER, WILLIAM, M.R.C.S., L.S.A., and late Medical Officer of the Norton District in the Malton Union, at Norton, on December 14, aged 37 years.

BOURKE, G. T., Staff Surgeon, in Medical charge of 2nd—22nd Regiment, at Winchester, on December 13.

BRESLIN, WILLIAM IRWIN, M.D., late of H.M.'s 46th Regiment, at his residence, 1, Fir-grove-place, Brixton-road, on December 20, aged 70.

DIXON, ELIZA, the beloved wife of Joseph Dixon, Surgeon, and eldest surviving of Henry Smithers, of Brighton, at 6, Lansdowne-terrace, East Hove, on December 15, aged 40.

JENKINS, GRIFFITH RICHARD, M.D., of H.B.M.'s Legation, Japan, formerly of the Royal Navy, youngest son of the late Jonathan Jenkins, Esq., of Cilbronne, Cardiganshire, at Cardigan, South Wales, on December 13, aged 36.

LAWRANCE, RICHARD MOORE, M.D., M.R.C.P., late of 60, Great Cumberland-place, W., at 2, South-street, Thurloe-square, on December 14, aged 48.

MILLER, CHARLES, M.R.C.S., etc., formerly of Great Wakering, Essex, at his residence, Stamford-villas, Fulham, on December 16, aged 74.

WINDER, WILLIAM, M.D, late of the 49th Regiment, at 3, Cambridge-terrace, Greenwich, Kent, on December 7, aged 80.

WRIGHT, HARRIET, widow of Warner Wright, M.D., at the Upper Close, Norwich, on December 15, aged 82.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ALDERBURY UNION.—Medical Officer for the third district of this Union. Candidates must be duly qualified and registered. Applications and testimonials to T. Jesse, Esq., Clerk to the Guardians, Bedwin-street, Salisbury, on or before January 5, 1871. Election on the 6th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the Secretary on or before December 28.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Physician; must have a degree from one of the universities recognised by the General Medical Council, and be a Fellow or Member of the Royal College of Physicians of London. The office of Assistant-Surgeon is also vacant. Candidates must be Fellows of the Royal College of Surgeons of England, not practising pharmacy or midwifery. Applications and testimonials to Henry Woolcott, Esq., Secretary, on or before January 10, 1871.

CHELSEA DISPENSARY.—Dispenser; must be thoroughly competent and devote the whole of his time to the duties of his office. Applications and testimonials to Mr. Wm. Miller, Clerk to the Guardians, Arthur-street, Chelsea, on or before the 27th inst.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to Mr. John Binks, Hon. Sec., on or before December 26.

COUNTY DOWN INFIRMARY AND FEVER HOSPITAL.—Resident Registrar and Surgeon's Assistant; must be duly qualified and registered. Applications and testimonials to James Simms, Esq., Registrar, on or before January 10, 1871.

FEVER HOSPITAL AND HOUSE OF RECOVERY, CORK-STREET.—Temporary Physician. Applications and testimonials to J. F. Eustace, Esq., Registrar, on or before January 4.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistant; must have a Medical qualification. Applications and testimonials to the Hon. Sec. on or before Dec. 31.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary on or before December 27.

MIDDLESEX HOSPITAL.—Medical Registrar and Superintendent of Medical Post-mortem Examinations; candidates must be either Bachelors or Doctors of Medicine of one of the Universities of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London. Applications and testimonials to the Medical Committee on or before the 31st inst., at 12 o'clock noon.

NEWCASTLE-UPON-TYNE BOROUGH LUNATIC ASYLUM.—Medical Superintendent; must be a legally qualified Medical Practitioner. Applications and testimonials to John Atkinson, Esq., 72, Pilgrim-street, Newcastle-on-Tyne, on or before December 24. A copy of the last report of the Commissioners in Lunacy on the state of the asylum with which the candidate is or has been connected is also to be forwarded.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—House-Surgeon; must be duly qualified. Applications and testimonials to Mr. R. F. Easterley, Secretary, on or before January 2 next. The duties will commence on February 7.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.—Medical Officer; must be F. or M.R.C.P. Lond., or M.R.C.S. Eng. Applications and testimonials to A. S. Boodle, Esq., Secretary, at the Hospital, Marylebone-road, on or before January 2.

ROYAL SOUTH LONDON DISPENSARY, ST. GEORGE'S-CROSS, LAMBETH-ROAD, S.E.—Honorary District Surgeon. Applications to Mr. Heutsch.

ROYAL SURREY COUNTY HOSPITAL.—Honorary Medical Officer. Applications and testimonials to the Hon. Sec., the Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before February 23, 1871.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.—House-Surgeon, Apothecary, and Secretary; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Chairman of the Committee of Management on or before December 31.

WEST KENT GENERAL HOSPITAL, MAIDSTONE.—Resident House-Surgeon; must have some legally recognised qualification, and be registered. Applications and testimonials to Mr. Holmes, 16, Knightrider-street, Maidstone, on or before January 3, 1871.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Guisborough Union.—Mr. H. W. A. Sandell has resigned the Danby District; area, 25,240; population, 2046; salary, £35 per annum.

Uckfield Union.—Mr. Henry C. Holman has resigned the Framfield District; area, 15,173; population, 3102; salary, £70 per annum.

West Ward Union.—Dr. Edger has resigned the Morland District; area, 22,170; population, 2,575; salary, £25 per annum.

APPOINTMENTS.

Reeth Union.—Abraham B. Kernot, M.R.C.S. Eng., L.S.A., to the Reeth District and the Workhouse.

Stoke Damerel Parish.—James E. Bennett, M.D. St. And., M.R.C.S. Eng., to the Clowance and St. John's District. William C. Wilson, M.D. Univ. Edin., L.R.C.S. Edin., to the Morice and St. Aubyn District. Joseph May, jun., M.R.C.S. Eng., L.S.A., to the Stoke and Tamar District.

West Derby Union.—John P. Ryan, L.R.C.S.I., L. and L.M.K. & Q. Coll. Phys. Ire., as Assistant Medical Officer at the Workhouse for sick poor.

DURHAM UNIVERSITY.—At a meeting of Convocation of this University recently, the following regulation was unanimously approved:—"Persons shall be admissible as members of the University without being members of any college, hall, or house, provided they reside in some house or lodging approved by the Warden and Proctors."

NAVAL SURGEONS.—An examination of Assistant-Surgeons in the Royal Navy to qualify for promotion will be held at the Naval Medical Department, Admiralty, Somerset House, on the 3rd proximo.

MEDICAL CLUB.—The monthly *réunion* at dinner of the members and friends of this Club took place at the Club on Tuesday last, Dr. Lory Marsh in the chair. Sir W. Fergusson, Bart., Erasmus Wilson, Esq., F.R.S., Dr. Lush, M.P., W. Adams, Esq., Dr. Hood, Dr. Dudley, Dr. Swettenham, Dr. Gayton, and other members and guests were present. The Chairman spoke very hopefully of the success of the Club, which he thought would, upon its establishment in new and better quarters in Pall-mall, speedily become one of the most prosperous and creditable in town. He was glad to say that although they were losing a few of their old supporters in consequence of the subscriptions being raised, they nevertheless continued to make steady progress by the enrolment of new members. Upon the subject of Medical reform, Dr. Lush expressed himself totally opposed, with his Professional brethren generally, to the Bill of last session, not because of its details, which were excellent, but because the Profession was thereby debarred from all representation in the Council. He advocated the election of a council by the qualified Practitioners, under the presidency of a chairman to be appointed by the Crown, and who should have a seat in one of the Houses of Parliament, that he may be the exponent of Medical ideas and the protector of Medical interests. The dinner passed off very pleasantly, as we believe these social gatherings always do, and much good feeling was manifested towards the Club by all who were present.

THE Grocers' Company have sent a donation of twenty guineas to the funds of the Dental Hospital Soho-square.

THE notorious John Hamilton, M.D., of 404, Oxford-street, has been fined 40s. and costs by the police magistrate at Bow-street, for causing obscene tracts to be distributed to lads in the public streets.

LONGEVITY.—A female pauper died in the Marylebone Infirmary, a few days since, at the age of 103 years. It is stated that her mental faculties were but little impaired.

KING'S COLLEGE.—We regret to announce the death, after a few day's illness, arising from a post-mortem wound, of Mr. George Fisher, on the 20th inst. For upwards of twenty years he had been anatomical porter at King's College, where his humour, even temper, and obliging dispesition had long rendered him a favourite with both Professors and students. Many old King's men and students of the Royal Academy will feel his death as a personal loss.

COMPLAINTS have been made that the inquiry of the Contagious Diseases Act Commission is conducted privately, and that female witnesses have not been admitted to give evidence. Both statements are incorrect. Each of the societies, formed severally to oppose and to support the operation of the Act, has been invited to send a representative; and although neither of the gentlemen thus attending has, of course, been able to take part in the proceedings, both have had the freest communication with Mr. Massey, the chairman, and both have been allowed to bring forward witnesses. Nor have female witnesses been excluded.

FEVER IN NEWCASTLE AND GATESHEAD. — Dr. Philipson, in his fourth report for 1870, says: "Continued and other fevers, in both towns, have increased in prevalence. After deducting the cases reported to have been sent to the Newcastle and Gateshead Fever Hospitals, and which thus appeared in two returns, the numbers were:—In Newcastle, during the nine weeks, continued fever, 59; typhus fever, 85; enteric fever, 14; relapsing, 2; and febricula, 39; and in Gateshead, continued fever, 4; typhus fever, 22; enteric fever, 34; and febricula, 22. The total admissions into the Newcastle Fever Hospitals, during the nine weeks, amounted to 90—23 continued fever, 60 typhus fever, and 7 enteric fever. In the corresponding period of 1869, 18 cases of typhus fever were admitted; in 1868, 30 cases; and in 1867, 79. Several of the cases admitted into the Newcastle Fever Hospital, in October, are reported to have been mild, and without eruption, although they occurred in families where typhus fever had been previously unmistakably present."

THE annual meeting of the Association of Certifying Officers of Great Britain and Ireland was held last week at the Great Northern Hotel. Dr. J. T. Arlidge was elected President; Mr. Jordan and Dr. W. Reden, Vice-Presidents. In their report the Committee state—"In connexion with the question of the utility and efficiency of Certifying Surgeons, the Committee earnestly call attention to the recommendation made last year, that the members of the Association be requested to specially note the rejections of children and young persons on account of bodily infirmity or of disease, and to prosecute inquiries relative to the effects of labour on the operatives in different kinds of manufacture, and in general respecting the hygienic and physical condition of the working-classes. The Committee also urgently entreat the members to induce 'Certifying Surgeons' throughout the country to join the Association, by pointing out the necessity for united action in maintaining and improving their *status* and usefulness in the administration of the Factory Laws, and the more so in face of the suggested alterations of those laws contained in official reports, and of the impending reorganisation of the sanitary work of the country."

GOOD ADVICE WITH RESPECT TO ZYMOTIC DISEASES. —Dr. Whitmore, in his monthly report of the health of Marylebone for December, says:—"Measles, which in the month of October caused 10 deaths, and showed then a tendency to increase, declined last month to 4 deaths. Scarlet fever, on the contrary, caused 30 deaths, which exceeded those in October by 3. The whole history of this fatal malady is so strange, capricious, and inexplicable, that it is utterly impossible to conjecture with even an approach to probability when it is likely to decline. In the last two or three weeks there has been a gradual reduction in the number of fatal cases, which encourages the hope that we have seen the worst of the disease. The first and paramount duty of every parent, therefore, is, as soon as any one of his children shows symptoms of the disease, to isolate such child from every other member of the family until its recovery is complete, and until it is no longer capable of communicating the disease; further, it is necessary that the sick-room and its contents, and every article of clothing worn by the patient, and everything used in the room, should be thoroughly disinfected."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Chloral in Sea-sickness.—Mr. Richardson, of Cork, in a letter to the *Pharmaceutical Journal*, states that he found a dose of fifty grains of chloral took him from "Kingstown to Holyhead in sleep as sound as a top."

Dr. Whitehead.—The coroner has it in his option to call in whom he pleases; ordinarily he calls in the Practitioner most conversant with the case; but it is sometimes absolutely necessary to call in a neutral party, as in alleged malpractice. Our correspondent, we fear, can have no redress.

Druggists' Charges.—The controversy which has been going on for some time past in the pages of two of our contemporaries is amusing, if not instructive. One result, however, may be gathered from it—viz., the accusers of pharmaceutists as overchargers know little or nothing of the matter; and the pharmaceutists are unnecessarily irate at a charge brought against them at once unfounded and absurd.

Contagious Diseases Acts.—We have received a copy of a "Protest against the Royal Commission" for inquiring into the administration of the Contagious Diseases Acts, which has been issued by the Ladies' National Association for the Repeal of those Acts. We are sorry that the ladies, by the unreasonable violence of their language, deprive themselves of the support of many who would gladly do away with what is really pernicious in the spirit and practice of the Acts. To object to investigation, and to suppose that twenty-six Commissioners will merely recreate themselves with "indecent details," and will support an unfair and immoral system, is preposterous.

York.—The *Yorkshire Advertiser*, in its issue of Saturday last, has the following sensible remarks on the late election for a Surgeon to the County Hospital:—

"Now, at the ordinary meeting held prior to the election two remarkable things were noticeable. The first is, that at that meeting, at which the ordinary business affecting the wellbeing of the Hospital is usually transacted, only about thirty or forty—if so many—governors thought it worth while to put in an appearance, but subsequently, at the 'party' call, the number was increased to nearly 250. The other matter for notice was the complaint of the Dean of the great falling off in the donations and subscriptions for the past quarter. We should like to ask the Dean, Mr. Husband, and their Tory friends, whether the course they adopted last Tuesday is calculated to be of real service to the institution. We venture to opine not, and we are satisfied we are not singular in our opinion, and it will not surprise us to find a continued falling off in donations if politics are to continue to be permitted to influence the elections of officers of the Hospital. We sincerely hope it will not be so, for we regard the York County Hospital as our most valuable institution; but we are satisfied Mr. Husband and his party have dealt it a blow it will not quickly recover from."

Alpha, if registered, can recover, both for attendance and medicine.

Tempus Fugit cannot enter with any advantage until next session.

Nervous (Leeds).—The case is quite curable. Some gentleman in the town should be consulted.

Lex must be summoned under the provisions of the Medical Witnesses Act, or he cannot claim his fee for giving evidence.

Students.—The preparation is in the Museum of University College.

L. B. can assume the *title*.

Guy's.—We are fully acquainted with all the circumstances mentioned; allusion to persons now living was carefully avoided. The witness adverted to did not make a prominent figure at the trial, and it was not necessary to mention his name. He is now advanced in years, and since 1829 has been in practice in his native village.

"*Sidney Infirmary.*"—It was an error of the copyist, the recognition was *not* withdrawn.

A Student, St. Bartholomew's.—An advertisement of the next primary and pass examinations will be found on another page of the *Medical Times and Gazette*. You must undergo an examination in Medicine, or obtain a Medical licence elsewhere, before admission as a member.

The Wife of a Surgeon.—The savoury smell of the early dinner may be neutralised by the use of Rimmel's vaporiser.

A Member, Liverpool.—If you send £5 to the Registrar, 32, Soho-square, you will be duly enrolled without any further trouble; an additional fee of 5s. will be required for the qualification obtained after registration.

"*Mr. Sutton*" is no doubt a member of the well-known gang of "Sutton swindlers" tried at the Old Bailey, and convicted two or three years ago. Write to the Secretary of the College.

Obstetrician.—Dr. Walter Rigden states that in 2696 females in University College Hospital, menstruation occurred for the first time in three cases at 9 years of age, and that it was most common at 14—at which age he found, out of the above number, ranging from 9 to 26 years of age, no less than 560; at the latter age there were 2 only.

A Staff Surgeon in the Queen's Indian Army will see the notice in another page of the *Medical Times and Gazette*. Dr. Mouat was elected a Fellow of the College in 1844. Dr. Norman Chevers, who is a Member of 1841, is eligible, and no doubt would be elected a Fellow on compliance with the by-laws.

E.S.S.D., Fowey.—The essays for the Collegial Triennial Prize must be sent in this day (Saturday). The Anatomy and Physiology of the Organs of Taste and Smell in the Mammalia is the subject. The prize consists of the John Hunter Medal executed in gold, to the value of fifty guineas, or, at the option of the successful author, of the said medal executed in bronze with an honorarium of £50. The essays for the Jacksonian Prize must be sent in on the same day; the subject is Hæmorrhagic Diathesis, and Spontaneous and Accidental Hæmorrhage. The prize is now the amount of the dividend (between £9 and £10) received from the trust.

THE (LATE) LONDON SURGICAL HOME.

When, in 1867, the committee determined to close the Home as a public institution, a considerable sum of money was raised to adjust the liabilities, leaving, however, a balance still due to tradespeople of between six and seven hundred pounds, which amount the Committee quite hoped to have obtained, as a surplus on the sale of the houses Nos. 17 and 18, Stanley-terrace, holding at the same time, as collateral security for the creditors, a three-year policy on the life of the founder of the Home, which expired on the first ultimo.

Owing to the extraordinary depression in the value of house property, consequent upon the panic of 1866, and to the expenses which were found to be absolutely necessary in reinstating the two houses as separate private residences, they barely produced a sufficient sum to satisfy these expenses and the mortgages.

The result is, that there still remains an amount of £644 5s. 6d. due upon the old liabilities, in addition to £197 15s. 7d. advanced by the Treasurer.

An appeal is therefore earnestly made to former friends of the Institution and the public by the Committee, who feel that every exertion should now be made by them on behalf of the creditors, from whom they have received so much patient consideration.

The Committee will be much obliged by donations being forwarded to the Treasurer, R. Ruthven Pym, Esq., No. 1, Old Burlington-street, London, W.

Cheques may be crossed, "Bank of England, Western Branch."

*** We really cannot ask our readers to subscribe in order to release the Committee from liabilities which they have brought upon themselves; neither do we cast a stone at the fallen. We publish it as a caution to persons who may be incautiously led to entangle themselves in the management of charitable institutions of a *quasi*-, or ambiguously-public sort.

COMMUNICATIONS have been received from—

Mr. W. G. LAIDLAW; Mr. J. BINKS; Mr. G. B. RICHARDS; Mr. J. R. LANE; Mr. ALFRED WRIGHT; Dr. PLAYFAIR; Mr. G. M. STANSFELD; Dr. F. J. BROWN; Dr. J. WHITMORE; Messrs. BLACKWOOD; Mr. R. HARRISON; Dr. PHILIPSON; Dr. C. R. BAGE; Mr. E. WYLLIE; Mr. WEIGHTMAN; AN OLD GUY'S MAN; Mr. J. HANCOCKE WATHEN; Mr. HAYNES WALTON; Dr. MOXON; Mr. H. AANOTT; Mr. J. CHATTO; Dr. J. MACPHERSON; Mr. A. WRIGHT; Mr. F. T. PROCTER; Dr. C. C. RITCHIE; Mr. H. BEWLEY; Dr. E. HUGHES; Mr. M. BLOOD; Dr. CLIFFORD ALLBUTT; Dr. WHITEHEAD.

BOOKS RECEIVED—

Association of Certifying Officers of Great Britain and Ireland—Letts's Appointment Diary for the year 1871—Letts's Medical Diary for the year 1871—Letts's Monthly Professional Diary for the year 1871—The City Diary, 1871—Body and Mind. By Henry Maudsley, M.D. Lond.—New York Medical Journal, December—Whittaker's Almanack.

NEWSPAPERS RECEIVED—

Chemist and Druggist—Nature—Pharmaceutical Journal—Irish Times—Medical Press and Circular—New York Medical Gazette.

APPOINTMENTS FOR THE WEEK.

December 24. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

26. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

27. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

ROYAL INSTITUTION, 3 p.m. Prof. Odling, "Burning and Unburning" (Juvenile Lectures).

28. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

ROYAL INSTITUTION, 3 p.m. Prof. Odling, "Burning and Unburning" (Juvenile Lectures).

30. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 17, 1870.

BIRTHS.

Births of Boys, 1092; Girls, 1019; Total, 2111.
Average of 10 corresponding weeks, 1860-69, 2043·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	897	840	1737
Average of the ten years 1860-69	726·5	702·1	1428·6
Average corrected to increased population	...	...	1572
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	3	12	16	2	9	1	3	2	4
North ...	618210	18	2	39	2	9	3	6	3	2
Central ...	383321	...	1	13	2	...	...	4	2	1
East	571158	22	6	14	...	12	1	7	5	3
South	773175	1	6	53	3	14	4	3	3	2
Total	2803989	44	27	135	9	44	9	23	15	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·440 in.
Mean temperature	42·8°
Highest point of thermometer	57·4°
Lowest point of thermometer	31·4°
Mean dew-point temperature	40·5°
General direction of wind	S.W., S.E., N.E.
Whole amount of rain in the week	1·70 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 17, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Dec. 17.	Deaths Registered during the week ending Dec. 17.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2111	1737	57·4	31·4	42·8	6·00	1·70	4·32
Portsmouth ...	122084	12·8	57	54	58·2	31·6	44·6	7·00	1·94	4·93
Norwich	81087	10·9	54	51	57·5	30·5	39·6	4·22	0·66	1·67
Bristol	171382	36·6	109	84	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	42	29	55·2	26·3	39·2	4·00	0·74	1·88
Birmingham ...	360604	47·2	267	163	57·0	29·8	40·3	4·61	0·89	2·26
Leicester	97427	30·4	83	53	56·5	25·0	39·4	4·11	0·79	2·01
Nottingham ...	88888	44·5	61	42	56·3	25·0	38·4	3·55	0·69	1·75
Liverpool	517567	101·3	419	423	54·4	32·3	40·8	4·88	0·84	2·13
Manchester ...	374993	83·6	282	192	...	...	...	...	...	...
Salford	121580	23·5	80	68	56·4	21·0	38·4	3·55	0·93	2·37
Bradford	143197	21·7	131	87	52·1	25·0	39·1	3·95	0·85	2·16
Leeds	259527	12·0	188	156	53·0	28·0	39·1	3·95	0·95	2·42
Sheffield	247378	10·8	193	131	53·7	25·0	37·5	3·06	1·12	2·84
Hull	130869	36·7	81	49	...	...	...	...	...	...
Sunderland ...	100979	30·5	60	57	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	95	58	50·0	30·0	38·1	3·39	0·93	2·37
Edinburgh	178970	40·4	123	104	48·7	32·0	37·3	2·95	0·90	2·29
Glasgow	468189	92·5	351	304	46·5	30·0	35·4	2·89	2·29	5·82
Dublin (City, etc.*)	321510	33·0	134	176	54·0	23·5	39·2	4·00	1·07	2·72
Total of 20 Towns in United Kingd'm	7216325	33·8	4921	4018	58·2	21·0	39·3	4·06	1·08	2·74
Paris—Week ending Dec. 17	1889842	242	...	...	...	...	...	...	...	...
Vienna—Week ending Dec. 10 ...	622087	167	...	340	...	...	40·3	4·62	...	...
Berlin—Week ending Dec. 15 ...	800000	128	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·440 in. The highest barometrical reading was 29·96 in. at the end of the week, and the lowest was 28·94 in. on Wednesday.

The general direction of the wind was S.W., S.E., and N.E.

Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

ORIGINAL LECTURES.

LECTURES ON OPHTHALMIC SUBJECTS.

SELECTIONS FROM SHORT LECTURES GIVEN WEEKLY TO THE STUDENTS IN ATTENDANCE AT THE OPHTHALMIC DEPARTMENT AT ST. MARY'S HOSPITAL.

By HAYNES WALTON,

Surgeon to the Hospital, and Surgeon in charge of the Ophthalmic Department of the same; late Surgeon to the Central London Ophthalmic Hospital.

CATARACT.

(*Concluded from page* 637.)

GENTLEMEN,—A cataract exhibiting the characteristics of softness is effectually and safely removed through absorption, by opening the capsule so that the aqueous humour shall come into contact with the opaque lens tissue. By this method all the risks attaching to the operation for extraction are avoided. You know that there are perils during the operation, and perils for many days after.

The term "operation for solution" is applied to this absorbing plan. To a countryman of ours is due the merit of introducing the operation, which, if well done, is almost certain to succeed; but, like every other operation in Surgery, there are special details which must be attended to.

The freer the contact of the aqueous humour, the quicker is the cataract absorbed, but there is a limit to the degree to which such contact is admissible, arising out of the necessity for preventing some disturbing or destructive influences which would otherwise arise. Too much must not be done at once. It should be a great principle, in solution, to procure absorption of the cataract in its natural position. The less the lenticular matter is displaced, the less subject is the eye to irritation. The less, too, the capsule is torn in the early stage of the treatment, the less likely is it to contract adhesions to the iris, and, therefore, the more easy to be disposed of afterwards, if it block up the pupil.

There are two methods of operating—one through the cornea, and the other through the sclerotica. The corneal is more definite and simple, and inflicts less injury on the eye, and the needle is never out of sight. It is the one which I adopt.

At a first operation, all that is desirable is to tear through the centre of the capsule, and to penetrate and break the cataract to a small extent, but sufficiently to admit the aqueous humour to its texture. Dislocation of the cataract is to be avoided, but such displacement is very sure to occur at once, or subsequently if the capsule be much divided. This movement of the cataract, by which it falls into the posterior chamber of the eye, or the anterior, is very apt to cause inflammation, by which the process of absorption is delayed, or the eye even damaged. The same may be said of portions of the cataract escaping from the capsule. Swelling of the cataract always ensues, and is apt at all times to cause the wound in the capsule to enlarge; and, of course, the greater the length of the original tear or incision, the more likely is the wound to enlarge, because, according to the extent of the exposure of the cataract to the aqueous humour, is there increase of the swelling. The greater the atrophy of the lens fibres, the less do they swell. A healthy lens enlarges very much under such conditions. We have an opportunity, sometimes, of seeing the process in accidents to the eye which involve the lens. Another disadvantage of cataract swelling is pressure. The iris may be so affected, and much pain induced, and even disorganising inflammation developed.

During the whole of the period of absorption, the pupil should be kept dilated. By this, adhesions between the capsule and the iris may be prevented, and sometimes pressure on the iris avoided. It has been supposed that expansion of the pupil may be the cause of dislocating all or some of the contents of the capsule; but this is erroneous. On the contrary, dilatation may be advantageous in causing any detached portion of the cataract to fall into the anterior chamber instead of into the posterior, the far better position, because inflammation is so much less likely to ensue when it is occupied.

Very slight irritation follows a well executed operation on an eye which is not complicated with some other disease, and there is not the necessity for that strict observance of quiet so essential in the operation for extraction. However, the patient should remain in the house for a few days, and bright light should be excluded. If acute inflammatory action arise, it must be regarded as traumatic, and treated as such. The eyeball invariably gets harder if the slightest inflammation supervenes; but this symptom need not create the least alarm, nor should it call forth any particularly active treatment under the fear of glaucoma supervening. Glaucoma never has a traumatic origin. It is difficult to understand why it is that the eyeball does not become hard in idiopathic inflammations, even when they are intense. An eye may become destroyed from rheumatic or syphilitic inflammation without ever getting hard.

The pain which always follows the operation for solution, but is generally very slight, must not be mistaken for the commencement of an attack of inflammation. So long as the objective symptoms of acute inflammation are absent, narcotics, and the application of cold lotions, need be employed. Vomiting sometimes ensues, especially if any portion of the cataract become dislocated. Ice broken in little lumps, and taken by the mouth, generally stops it.

Results.—I will now consider the effects of portions of the cataract in the chambers of the eye, because fragments may escape from the capsule in spite of all care. When the cataract has become very soft in its superficies, some of the degenerated matter generally falls into the anterior chamber, and is soon absorbed. If there should escape much of the broken cataract, the plan is to wait and see what happens. It might be absorbed without any disturbance. Should severe pain come on, the displaced material ought to be evacuated by an incision through the cornea, assisted by the spoon of the curette. If the entire cataract should fall into the anterior chamber, or the nucleus of it should follow the soft superficies, extraction is the rule; yet I should be inclined to wait for symptoms before I acted, because absorption might proceed uninterruptedly, but slowly. Agonising pain of a neuralgic character in the eye, forehead, and head, is the precursor of dangerous inflammation. When the cataract, or its nucleus, or a large fragment, has fallen into the posterior chamber, much disturbance is likely to arise from pressure on the iris. The treatment is either to depress what is lying there, or to bring it into the anterior chamber with a cataract needle, and then to extract it.

The time required for absorption depends on the stage of the cataract, and the patient's age: the more the lens fibres have undergone atrophy, and the younger the individual, the quicker will be the removal. A single operation suffices in some instances, especially in infants, and it certainly will be sufficient when the lens has degenerated to fluidity; but for the most part repetition is necessary. If after the lapse of four or five weeks there is not evidence, in the flattening of the capsule and the concavity of the iris, that absorption is proceeding sufficiently fast, or if the aperture in the capsule should close, the operation is to be repeated. In such repetitions, the cataract tissue should be more freely broken up. At the last operation the anterior capsule should be torn across, with the object of clearing the pupil. If a sufficient interval between the operations be allowed, there are few cases which will not yield to two or three operations. Congenital cataract should be operated on before the eyeball begins to oscillate, and a child may be safely submitted to the operation after the first month of life.

The operation for solution is certainly the safest of all for the removal of cataract, as regards any immediate or secondary danger to the eye, and from none other is so much success to be got. It is one of the most scientific and beautiful operations in Surgery. Not any one damages so little—that is, has so few drawbacks. It embraces all the superiority that we claim for subcutaneous operations, in general Surgery, over surface wounds. It can be sufficiently well done by anyone with the least aptitude for operating. It is the easiest of all the operations for cataract. It is the appropriate one for soft cataract, beyond the possibility of a doubt. If any method of curing cataract without a Surgical operation be ever discovered, absorption will be the process.

This old English operation, which removes the cataract and spares the eye the risks of extraction, is at this period apt to be neglected, because not sufficiently taught, in consequence of the love of novelty, the force of fashion, and enthusiastic admiration of some inferior foreign methods. I am quite sure that if it were one of modern discovery it would be universally hailed as the greatest boon which ophthalmic Surgery had ever received. On some other occasion I will tell you about the operations which some Surgeons employ for extracting soft cataract.

After the cataract has been removed the capsule may not roll up or contract sufficiently, but occupy the pupil and impair vision. In such a case an operation must be undertaken, by

which a sufficiently clear space can be made for the transmission of light to the retina. This is, in fact, making an artificial pupil, the rules for which will be given when I come to speak of making false pupils. All that I need say now is, before any such operation be undertaken, you should be sure that the capsule does obstruct vision. Trying the sight with test-type is the only way to discover the truth. A small bar of capsule passing across the pupil, or a piece of capsule jutting out a little beyond the margin of the pupil, does not necessarily interfere with vision.

ORIGINAL COMMUNICATIONS.

EXPERIENCES WITH HYDRATE OF CHLORAL IN CANCER.

By WEEDEN COOKE, M.R.C.S.,
Surgeon to the Cancer Hospital.

Being on the watch for remedial agents which may mitigate the sufferings of patients afflicted with cancer in its various forms, when the local affection cannot be removed by operation, I have for some time employed the hydrate of chloral with the view of testing its hypnotic and sedative value as compared with the different preparations of opium and its alkaloids administered either by the mouth, by the rectum, or hypodermically, and also as compared with the expressed juices of hemlock, henbane, and belladonna, now so admirably prepared by our pharmaceutical coadjutors, and advocated in an exhaustive treatise by one of the most self-sacrificing and painstaking Physicians of this era, Dr. John Harley. It will be useful perhaps to make some comparative reference to the value of the accepted remedies before venturing on an estimate of this more recently introduced agent, which is supposed to dominate over that grievous scourge of humanity—pain—and its consequence—sleeplessness. I would premise that food is before all other things the best stayer of chronic disease and of pain, and that only when pain over-rides the assimilative powers is it necessary or desirable to employ therapeutic agents for its relief. For this reason, that as far as I know, with the exception I am about to record, soporific remedies diminish the powers of digestion, and so the disease, the evil, the destructive power, triumphs over the good, the creative power. I speak not of a temporary employment of sedatives given to secure a night's rest after an operation, the value of which all acknowledge, but of the continuous use of these agents in severe cases beyond the reach of Surgery. The decisive results obtained from the preparations of opium and its salts need no illustration from me. The advantages and the disadvantages are well known. Perhaps the local employment of opium is less used than it seems to deserve. For instance, in cancer of the uterus and of the rectum, the injection into the rectum of a teaspoonful of fluid containing the dose of opium desired to be administered is attended with far greater and better results than when administered either by the mouth or the vagina, and the small quantity employed enables the sphincter to retain the whole of it. The watery extract of opium is invaluable as a local application in all painful affections. I do not desire to say a word in deterioration of the subcutaneous injection of these remedies, but where there is an ulcer or abrasion of skin there can be no necessity for the use of the syringe, and where there is not I am sorry to say that many patients refuse to undergo daily prickings with these little instruments.

Morning sickness and loss of appetite are the penalties paid for a night's sleep produced by opium or morphia frequently administered.

Then we come to try the effects of conium, as has been done before many a time and oft, but now with the advantage of a certain dose artistically prepared under skilled advice. With the greatest faith, with ardent hope, and with occasional success, I have worked conium by itself, in combination with hyoseyamus, in combination with belladonna, and conjointly with bark, thoroughly, and I still use it advantageously in some cases, but, I regret to say, it does not supply the need. It does not give relief from pain without disturbing the digestive process, neither does belladonna or hyoscyamus given alone or in combination. Turning, then, to chloral, that strange liquid discovered by Liebig, which, by the addition of another liquid, water, becomes solid—the hydrate of chloral, first employed, I believe, as a hypnotic in Germany—there arises a hope that we have in view a method of relieving pain and producing sleep which shall not interfere with the healthy assimilation of food, and which may be employed without producing any sort of unconsciousness—a consummation hinted at and sought for especially by our distinguished collaborateur, Dr. Richardson, in all his inquiries respecting anæsthetic agents. Long experience of the frequent failures of newly projected remedies in cancer has made me slow to express publicly any opinion respecting the use of hydrate of chloral; but the results obtained in the cases in which I have employed it are so charming, so persistent, that, fortified by the published experience of others, I feel bound to add mine in confirmation of the excellent results obtained from the judicious use of this drug, and also a remark or two on the doses which will probably be found most efficient and innocuous. The cases I have to record are these:—Case 1: A poor fellow, aged about 50, has epithelioma running up the rectum and spreading itself externally about the anus. He has been in several Hospitals. By the employment of opium and conium externally and internally the pain is abated, but his digestion, which is naturally good, is thereby much upset. He was put upon ten grains of hydrate of chloral three times a day; since which he has been more free from pain, and the digestion is now not interfered with. Case 2: In a case of advanced cancer of the uterus attended with much acute suffering, especially in the back, twenty grains of the hydrate of chloral always produce a comfortable night's rest and no morning sickness. Case 3: A bad case of epithelioma of the ear extending to the scalp, attended with much pain, and the patient is subject to frequent attacks of gout. Ten grains of hydrate of chloral given three times a day. By this he is made perfectly comfortable: there is no sickness, he takes his food well, and the gout has subsided. Case 4: A very bad case of epithelioma of cheek, with perforation, attended with much pain and difficulty in taking food. Sleeps well with twenty grains of chloral. No morning sickness; appetite good. Case 5: I was recently called to see a very anæmic lady suffering from sloughing cancer of the right breast, attended with much sickness and severe pain—apparently dying. She has been restored to comfort and appetite by ten grains of chloral, with five minims of prussic acid, three times a day. Case 6: A most painful case of psoriasis of the lips and fauces, the mucous membrane being quite destroyed, leaving a raw surface, a long time under treatment by various Surgeons, relieved entirely from pain by ten grains of chloral three times a day, enabling the patient to take food comfortably, which had not been the case for a long time. Case 7: A bad case of cancer of the tongue; great pain and inconvenience in taking food. Much relieved and the facility of taking food greatly increased by ten grains of chloral three times a day. Sleeps well since taking the chloral. Case 8: Another case of uterine cancer with great pain in back is made comfortable by ten grains of chloral three times a day. Pain in back gone, takes food well, and sleeps well. In one case of uterine cancer the patient prefers the injection of opium into the rectum as being more efficient in the relief of pain, and in another case of cancer of the breast, attended with severe bronchitis, there was a complaint of headache and some delirium at night, but I am inclined to think that the dose had been too large in this case—viz., thirty grains. Thus far, as a night draught, I have found twenty grains quite sufficient. But when pain is persistent the ten-grain dose three times a day gives the greatest satisfaction. There is no headache, no sickness, no loss of appetite, nothing to hinder the patient taking exercise, and, so far as the disease will permit, pursuing his usual avocation. Although many Practitioners have advocated larger doses, I am still of opinion, fortified by the results of trials in many more cases than those above recorded, that no advantage is obtained by much exceeding these limits. Occasionally the combination of morphia has proved beneficial, but in matters of practical science, believing that unitarianism is the only safe method of inquiry, I would urge that in all cases requiring hypnotic or sedative remedies the hydrate of chloral should be used, unaided by any other similar drug, and, if it fails, to abandon it altogether. Tincture of orange-peel in water covers the rather nauseous taste very effectually.

Prince of Wales's Prize.—It is gratifying to state that Mr. R. R. Harper, son of Mr. Harper, of Holbeach, was the successful competitor for the gold medal annually given by the Prince of Wales to the Grammar School of Lynn. Mr. Harper had the honour of receiving the medal from the hands of the Prince himself, at Sandringham, last week.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LOCK HOSPITAL, SOHO.

IN MR. BERKELEY HILL'S OUT-PATIENT ROOM.

As a rule, perhaps, the attendance at a special Hospital is far less interesting than watching for the same time the varied ailments met with in the out-patient department of a large general Hospital. The repetition of the same set of symptoms is a trifle wearisome, and apt to pall upon one after a score of patients have filed through, each presenting the least possible variation from the preceding story. To those specially engaged in the study of the given disease, no doubt these small variations become invested with considerable interest; but it is otherwise with the great majority of workers. The Lock Hospital, however, is an exception to the rule, in that the extremely various affections, due to one form or other of the venereal taint, are in themselves a tolerably wide field of study, and this study may be, perhaps, better pursued at the Lock Hospital in Dean-street than at any other institution in London.

There is no need that we should go into any detailed account of the several patients attending at the time of our visit; we shall only direct attention to the manner in which the work is carried out, and allude to such points as seemed of special interest in some of the cases. One girl, for instance (it was a day for the exclusive attendance of female patients), told a long and wretched story of her troubles during the past year or two; from which it became clearly evident that the special Government Lock Hospitals, which are by some just now regarded as such cruel impositions on an unfortunate race of women, are by no means so regarded by the women themselves. This poor girl, suffering from a long category of troubles due to syphilis, and in much want and wretchedness, hearing of the Hospital at Aldershot, managed to get all the way from London there, that she might find some sort of asylum during her illness, and she—together with those of her companions who told her of the place, and advised her to go there—evidently regarded the Hospital as a very real boon, and spoke very gratefully of the assistance it had been to her.

All cases in which the nature of the disease is not quite clear are examined with the speculum, and this is accomplished in a very neat way. The woman is told to climb up into a high wooden arm-chair, and, her feet being placed in slipper-like projections on either side, a handle is turned by the Surgeon, and forthwith, the chair rearing over backwards to any required extent, and the foot pieces turning aside, the woman is at once placed in a perfect position for examination. A suitable speculum is now taken from a basin of Condy's fluid (in which all the instruments are kept when not in actual use, so as to avoid any chance of spreading disease by an infected speculum), and inserted in the vagina. A bright gas flame with concave reflector is then held to the mouth of the speculum, and moved freely about by means of a flexible tube attaching it to the iron gaspipe in the wall, and the os uteri and all the parts of the vagina carefully examined as the speculum is slowly withdrawn, so that a sore occurring in any part of the tract could hardly be missed. This examination takes not more than a minute or two, as everything is in readiness; and even where there is any discharge obscuring the parts, the whole business is speedily over. We saw one or two vaginæ cleansed on this account. Mr. Hill has an indiarubber syringe, with a flexible tube dipping into the fluid to be injected (a solution of permanganate of potash in these cases), and a stiffer long tube, with rounded, perforated nozzle, which is thrust well up to the os. The fluid is then forcibly injected, in a full stream, and received, on its escape, into a small oval dish held against the perineum. Two or three injections with this syringe completely cleanse the passage, and show clearly the slight excoriation or other mischief present. For such patients as require to use injections at home, Mr. Hill recommends, not the ordinary glass syringes, which are of little use for efficiently cleansing the vagina, but syringes resembling that employed by himself in the out-patient room; and we learned that a good, strong instrument of the kind is supplied by Mr. Hawksley, of Blenheim-street, at 2s. 6d., for these patients.

Among the patients presenting themselves were a good many cases of general vaginitis with excoriations about the os uteri, which were rubbed down with nitrate of silver. One woman presented a good example of ulcerating gummy tumour in the pharynx, and another showed the traces of what had been a large gummy tumour in the tongue, the size of a walnut, but which had nearly completely disappeared under the use of iodide of potassium, given in doses of ten grains three times a day, gradually increased to twenty-five grains. The good effect of mercury in certain forms of syphilis were well shown in the case of a woman who had long been suffering severely with constitutional syphilis, and who had been accidentally salivated by the use of a very small amount of mercurial ointment. The inunction, trifling as it was, produced tolerably severe effects on the mouth, etc., and as these cleared off the disease began to give way notably, and the improvement continued to be most marked from that time. Mr. Hill has not unfrequently met with sores in the rectum amongst his patients at this Hospital, but these have usually presented the characters of ordinary ulcers in this position, and he has hardly ever seen anything which he could trace at all clearly to a venereal source, or which closely resembled chancres in other situations. We observed a woman as she turned away drop some coins into an alms-box on the table, and we learned that the patients show their appreciation of the benefits of the Hospital in a very practical manner, for this box received upwards of £32 contributed in this way during last month alone—an astounding sum when one reflects on the amount usually put into such receptacles at other Hospitals.

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Medical Times and Gazette.

SATURDAY, DECEMBER 31, 1870.

ANNUS MEDICUS, 1870.

When the history of Medicine in England in the nineteenth century shall come to be written, what kind of character will the writer bestow on the year 1870? Looking at it from one side—the side of practical Medicine, of disease and mortality—he may perhaps feel inclined to call it a year of epidemics: for we have been visited by epidemics of relapsing fever, typhoid fever, scarlet fever, and small-pox; or, regarding it from a different point of view—that, namely, of policy and education—may he not be tempted to stigmatise it as the year of failures and one success? We failed to get the long desired new Medical Act; the first conjoint examination scheme was a failure; the Medical Societies amalgamation scheme was a failure; but the Profession gained one triumph. They could not get a Medical Act Amendment Bill that they liked, but they prevented a powerful Government from forcing on them a miserably incomplete and injurious one. We may hope that our historian may feel able honestly to say that Medicine made good and steady, though silent, progress, but he will not be able to credit the year with any great triumph and success over disease, any marked and distinct step in advance in the

science of Medicine; and he will have to note that a gloom was cast over us by the loss of some of the most eminent Medical lights and teachers of the day. No one would, we think, say that the Medical year 1870 deserved to be marked by a white stone.

At the beginning of the year, the chance that any Medical Bill could obtain serious consideration in the approaching session of Parliament seemed very small indeed. It was in the highest degree improbable that a Bill introduced by any private member, however influential, would command or win fruitful attention; and that the Government would undertake to bring in a Medical Bill appeared to be hopeless. In the last month of 1869 the executive committee of the General Medical Council had had an interview with the Lord President of the Privy Council, in order to urge upon him the strong reasons that existed for amending the Medical Acts without any further delay; but his Lordship, though not absolutely refusing all Government help, gave no hope of it, and pointed out that her Majesty's ministers had already more than enough business before them, and that such matters as a Medical Acts Amendment Bill must give way to measures more imperiously demanded and actively agitated for. And truly the more the Government programme for the session became known, or whispered about, the more futile it seemed for our Profession to look to ministers for the help needed, or believed to be needed, from them. Very unexpectedly, however, the Lord President did become convinced of the reality of the need for action that had been pressed upon his attention, and on the 2nd of February he, by the pen of the Medical Officer of the Privy Council, addressed a letter to the President of the General Medical Council, stating that further consideration had led him to see that an urgent necessity existed for Medical legislation, most especially such as would consolidate the examining authorities, but would also take in other matters, and be a large and satisfying measure, and adding that, with the help of the General Medical Council, his Lordship hoped to be able to propose to Parliament such a measure in the next session. This most important communication rendered it necessary, of course, that the Medical Council should be called together without delay, and accordingly, at no slight inconvenience and sacrifice, they met on February 24, to take his Lordship's letter into consideration. It will be remembered that the Lord President (whose letter may be referred to at page 235 of our first volume for this year) expressed very strongly his belief that the existing system of examinations for admission to the Profession "by many mutually independent and, in great part, competing Corporations" was a great evil, and stated that he regarded the question of the necessity "for consolidation of examining authorities" as being now "presumably ripe for decision;" This was the main subject of the Medical Council's discussions; and, after debates which occupied nearly three days, they passed a series of very important resolutions, the pith of which was to recommend that a joint Examining Board should be formed in each of the three divisions of the kingdom, by one of which every person desirous of practising medicine should be passed before he could register, "the rights and privileges of the Universities and Corporations being left in all other respects the same as at present." The existing examining bodies were to be allowed a certain time in which to "concert a scheme for the constitution and regulation of a conjoint Examining Board" for each division of the kingdom, and this scheme should be approved of by the General Medical Council; and "in case of disagreement between any of the conjoint bodies and the Council, the points of difference" were to be referred to the decision of the Privy Council. The Council, to give effect to their resolutions, empowered the Executive Council to confer with the Lord President of the Privy Council, and to bring under his notice the various provisions it would be necessary to introduce into an Amended Medical Acts Bill, in order to carry out the desired changes. They also, with a copy of their resolutions, addressed to his Lordship a letter expressing the great satisfaction with which they had received his communication. On March 30, Sir John Gray moved the second reading of a Medical Acts Amendment Bill which he had introduced in the House of Commons. The author of the Bill had framed it, no doubt, with the best possible intentions, but, as we pointed out, it contained many decidedly objectionable and some impracticable, not to say foolish, provisions; and, in his speech moving the second reading, Sir John Gray indulged in such high-flown statements and highly-coloured descriptions of the state of Medical education and examination, that the Profession could not have supported his Bill or have accepted him as the exponent of their needs. Fortunately, however, he consented to the adjournment of the debate on his Bill, on Mr. W. E. Forster's assurance that Lord De Grey, the Lord President of the Privy Council, intended to take an early opportunity of bringing a Medical Acts Amendment Bill into the other House. The promise thus made by his colleague was fulfilled by the noble Earl on April 8, and the Bill then read for the first time was given *in extenso* in our number of April 16. It may be said, perhaps, that a first perusal of it excited a pleasant amount of approval and surprise—for while its main feature was the unification of examinations in each division of the kingdom, the measure as a whole seemed more moderate and less meddlesome than might have been expected from her Majesty's Government; but a little consideration showed that, while some of the provisions of the Bill were very satisfactory and desirable, others were most objectionable; and that, remembering Earl De Grey's opinion that "any Bill purporting to be for amendment of the Medical Acts ought to cover all the ground where amendment of those Acts is called for," the measure was strangely imperfect and incomplete. It provided fully for the establishment of the "one-portal system," and so far was very acceptable, but it proposed submitting the acts of the General Medical Council and the licensing bodies—and through them the government of the whole Profession—to the supervision and power of the Privy Council, to a degree that seemed degrading and intolerable; and it left untouched the constitution of the Medical Council. In what manner and in what degree the constitution of the Council should be altered, were disputed points, and we did not at all sympathise with the cry that had been raised for what is called the "direct representation of the Profession" in it; but the demand for some change in it had been so widespread and loud that the total omission of the subject from the Government Bill was surprising, and was certain to excite discontent and provoke hostility. Other serious defects in the Bill might be mentioned; but as the measure never became law it would be an unnecessary wearying of our readers with a repetition of an oft-told tale to enumerate them all here—we shall only notice them when we come to state what amendments the Lord President made in his Bill. The introduction of the measure excited, of course, great stir and excitement in the Profession. The Colleges of Physicians and Surgeons held meetings to discuss it, and sent deputations to confer with Earl De Grey; other of the Medical authorities also examined the Bill, and the General Medical Council met again, on April 18, and occupied six days in thoroughly discussing it, clause by clause. They also had interviews with the Lord President, to point out to him that while they were able to give a general approval to the measure, and accepted the one-portal principle, they must strongly press upon him the necessity of amending some of its provisions. His Lordship, always very courteous, and apparently really desirous of understanding and giving weight to the objections urged against parts of his work, promised that he would himself introduce, on the second reading of the Bill, such amendments as would, he hoped, satisfy the Profession, while not interfering with or weakening its main principles. These amendments were necessarily looked for with

no little anxiety and interest. On May 7 the Bill was read a second time, and on the 10th it was committed *pro formâ*, in order that it might be reprinted with its noble author's amendments, and then re-committed. In our number of May 14 we published the amendments, and it is not too much to say that they, as a whole, caused great disappointment, and, instead of removing or lessening any opposition to the Bill, made it absolutely necessary that the Profession should use their utmost endeavour to prevent such a measure from becoming law.

It is true that some of his Lordship's amendments were real, though not great, improvements. The power of the Privy Council was restricted to the confirmation or rejection of schemes proposed by the General Medical Council; a clause was introduced to provide in some degree for the maintenance of Professional morality; the Universities were not to be allowed the power of granting their lower degrees without examination; and some other minor improvements were made. But no alteration was proposed to be made in Clause 30, which provided that a majority of the Medical authorities in each Kingdom should exercise the powers of all in all matters provided for by the Act—thus, in England and Scotland, placing the Corporations at the mercy of the Universities, and giving to such a body as the University of Durham a weightier voice than that of such a Corporation as the Royal College of Surgeons of England. A clause was introduced, in the interests of the homœopaths, debarring the legal Medical examining boards from "requiring any candidate to adopt, or abstain from adopting, the practice of any particular theory of Medicine or Surgery, or from making such adoption or abstention a condition of admission to, or of passing, any examination or otherwise," thereby providing for the admission into the ranks of the Profession of believers in, or practitioners of, any heresy, however absurd or repugnant to Medical science. No change whatever was proposed to be made in the constitution of the General Medical Council; and it was proposed to omit Clause 18 in the Bill, and leave to the Universities and Corporations the power of granting degrees or diplomas in Medicine and Surgery to persons who had not passed either of the new examining boards. This "amendment" had been yielded in deference to the remonstrance of the Universities, and especially of the University of London, against their being deprived of the power of granting degrees, giving no *legal* right to practise, to persons not Licentiates in Medicine and Surgery. To have yielded this only would have been weak enough, but when the Lord President went further, and granted the same kind of privilege to the Corporations, he simply destroyed the chief value of his Bill—the establishment of the one-portal system—and rendered the measure worse than worthless. It is true that the degrees and diplomas thus conferred would not entitle their owners to registration, and the Lord President believed, or affected to believe, that the penalty clauses of the Bill, forbidding unregistered persons to practise their Profession for *gain*, would effectually deter the non-licensed qualification-holders from practice; but his Lordship stood alone, probably, in this belief. The Profession laughed to scorn the idea that any law could prevent graduates of Universities, or Members and Fellows of Royal Colleges of Physicians and Surgeons, even though not registered, from giving advice, and taking *honoraria*, which are not recoverable at law; and competent lawyers also affirmed that the Bill, as amended, contained nothing that would in practice prevent any person holding a Medical diploma from a University or Corporation exercising the duties of his Profession. The Bill, as thus presented to the House of Lords, instead of working out honestly and fully the one-portal system, only added three more examining bodies to the nineteen already existing.

Before the measure again came before the House, the Profession endeavoured most earnestly to impress upon Earl De Grey and on the House of Lords the extremely injurious effect of the changes made in it. The Royal College of Surgeons of England, for the first time, called a public meeting of its Fellows and Members, and obtained their approval of a petition to the House of Lords, praying that the House would consent to the restoration of the original Clause 18, or would refuse to give their sanction to the Bill. Other Professional bodies, second only in importance to the English College, petitioned the House to the same effect, and petitions praying for other alterations of the Bill were also addressed to their Lordships; but utterly in vain. The weakness that led the Lord President to mutilate his own Bill made him obstinate in refusing to reconsider his decisions, and their Lordships could not, or would not, be induced to take any real interest in the matter. The Bill went into committee of the House on June 30, and was considered clause by clause. The Duke of Richmond and Lord Cairns had given notice of certain amendments devised in the interests of the Universities which they represent; but these amendments not being in unison, no serious party support was attempted to be given to them, and they were either withdrawn or negatived without a division. Earl Grey effected a small, though real, improvement in the Bill by carrying an amendment enacting that the new licence in Medicine and Surgery should be granted by the General Medical Council instead of by the Examining Board in each division of the kingdom. The majority clause was somewhat improved, and some other slight amendments were carried; but not a voice was raised in favour of the restoration of the original Clause 18, the re-insertion of which had been urged so strongly by the whole Profession. On July 4, when the amendments were reported to the House, the Earl of Lichfield proposed the insertion of a clause, to add to the General Medical Council eight representatives of the Profession in the three divisions of the kingdom. The amendment excited some conversation, but it was easy to point out serious objections to it, and Lord Lichfield, satisfied by an assurance that, had it been brought forward in committee, Government would have considered it, withdrew it. When the Bill came on for the third reading, on July 5, the Earl of Clanricarde, after observing that it would not satisfy either the Profession or the public, moved that it be read a third time that day three months. This was, of course, negatived, even without a division, and the Bill was passed. Supposing that the two noble Earls of Lichfield and of Clanricarde were really at all in earnest in their opposition to the Bill, the remarkable slowness of their minds in receiving an idea of its character must be respectfully regretted, for they could not have had the slightest hope of achieving any success whatever when they delivered their minds at such late stages in the life of the measure.

The Bill having thus passed the Upper House with all its imperfections on its head, the only chance of getting it largely amended, or rejected, lay in the degree in which the Profession could influence the House of Commons; and there, happily for the public and for themselves, they were more successful. The Bill was read a first time in the lower House on July 13, and the Government showed every intention of pressing it on very rapidly. The Education Bill, however, stopped the way somewhat, and in the breathing time thus gained the Profession poured into the House petitions against the measure, and exhibited such earnestness and activity in demanding its amendment or rejection, that on July 26 Mr. W. E. Forster announced that the Government found themselves reluctantly under the necessity of withdrawing it, as "it would be impossible at that period of the Session to deal with the question of the constitution of the Medical Council, which there was a desire in some quarters that the Bill should embrace." Thus fell, by parental hand, the Government Medical Bill of 1870, and thus ended, for a time, the hopes and fears of Medical reformers. The Bill, as at first introduced, might easily have been made a really valuable one. We have several times pointed out that by grouping together the Medical authorities for representation in the General Medical Council, so as to lessen

its numbers, and by resting this indirect representation of the Profession on a widened basis, by giving the electoral franchise to the graduates, fellows, members, and licentiates of each authority or group of authorities, the constitution of the Medical Council would be satisfactorily and truly reformed, and its efficiency probably greatly increased. Had a few clauses providing for some such change as this been added to the Government Bill, the supremacy of the Privy Council been lessened and restricted, and permission given to the Universities to grant, with proper limitations and restrictions, honorary degrees in Medical Science, the measure would have satisfied the vast majority of the Profession, would have been accepted by the Universities, and would not have excited the hostility of her Majesty's faithful Opposition in either House of Parliament. That so promising an opportunity of laying to rest the wearisome agitation for legislation for the Medical Profession was lost is greatly to be regretted. But the unhappy pliancy of Earl De Grey and his advisers to the pressure of some of the interested Medical authorities, and their still more unhappy obstinacy in refusing to listen to the representations of the more liberal-minded authorities and of the Profession at large, led to their passing through the House of Lords a measure so injurious, and so lamentably incomplete, that its final wreck in the House of Commons was a matter for sincere congratulation.

Though the Government did not succeed in forcing a distasteful Bill on the Medical Profession, a member of that Profession did succeed in passing into law an important piece of Medical legislation; and the whole Profession is greatly indebted to Mr. Brady for his skill, energy, and persistence in the management of his Poor-law Medical Officers' Superannuation Bill, which, after running risk of serious damage or destruction by the House of Lords, received her Majesty's assent in August. Nothing else need be said of the proceedings of the legislative bodies — the Education Bill largely absorbed their attention; but next year, if war does not interfere, there is some chance of large and comprehensive sanitary measures being seriously considered. Great national measures, like the Reform Bill, the Irish Church and Land Bills, and the Education Bill, are, indeed, very grand things, but they sadly interfere with what may be called domestic legislation; and it is high time for the Home Secretary to have a chance of more largely occupying the attention of Parliament. We sincerely hope that the Foreign Secretary, the Secretary for War, and the head of the Admiralty, may not be obliged to get in the way.

The General Medical Council sat twice, as we have already mentioned. Their first session was chiefly taken up by the consideration of the communication from the Lord President of the Privy Council; and a series of resolutions was agreed to, condemning the present system of a multitude of examining boards, and recommending their consolidation, so as to form one examining board for each division of the kingdom. This was an excellent and praiseworthy act as far as it went, and it is to be hoped that the several members of the Council will take every opportunity now of urging on the various bodies they represent the necessity of promptly carrying out the resolutions. But when the Council met the second time, it was at once seen that they were not at all prepared to go the full length of the one-portal system, but had intended that, though every person desiring to enter the Profession should be obliged to pass through one of the consolidated examining boards, he should not thereby obtain a licence to practice, but only the right to claim licences or diplomas in Medicine and Surgery from some of the Medical authorities, as from the College of Surgeons of England, and the College of Physicians, or the Society of Apothecaries. Accordingly, on arriving at Clause 3 of the Lord President's Bill, the clause which enacted that no person should be entitled to register unless he had, "after examination by a Medical examining board, appointed under this Act, obtained a licence to practise Medicine and Surgery under this Act," it was proposed that the words "certificate of competency" should be substituted for the word "licence," and, though the great improbability that Government would accept such an amendment was suggested to the Council, they, with much speaking of great words of independence, carried the resolution. Next day, however, they were authoritatively informed that Lord De Grey considered that their alteration struck at a fundamental principle of the Bill, and that neither that nor any similar alteration of Clause 3 could be accepted. This led to a long and stormy debate, containing much tall talk about tyranny, humiliation, cowardly yielding to pressure, and the like; but, having relieved their feelings, the Council then did what they might just as well, to say the least, have done on the previous day — that is, accepted fully the principles of the one-portal system; and in the end gave a general approval to the Bill. But it cannot be said that, on the whole, the Council gained ground in the opinion of the Profession during their sessions; they laid themselves open to the reproach of thinking more of the interests of the Universities and the Corporations than of the Profession and the public; they yielded to the full reform of the examination system only under compulsion; and they refused, on what must be held idle and trivial grounds, to recommend to the Government even a very moderate measure of reform in their own constitution. Much complaint has been at various times made of the costliness of the Council, and the balance-sheet presented to them this year showed that in the year previous they had exceeded their income by more than £700. This somewhat alarmed them, and they met the difficulty of ways and means by resolving that, in future, their sessions should not exceed six days each. We mention this touching trait of thoughtfulness and care for the future because somewhat of the tender interest with which the acts of doomed men are regarded must now attach itself to the proceedings of the General Medical Council; for it is quite certain that no Medical Acts Amendment Bill will be passed that does not provide for some considerable alteration in the constitution of that body.

At the end of 1869 we were able to inform our readers that "most important steps had been taken towards effectively working out and carrying into practise the popular idea of one conjoint examining board" for England and Wales. The Royal Colleges of Physicians and of Surgeons, and some of the Universities, had pronounced in favour of the establishment of such a board, and the College of Physicians had appointed a committee to confer with the Universities and Corporations on the subject. For a while all went on well. The Committee of the College of Physicians prepared a scheme for the composition and regulation of a conjoint board, the main principles of which were accepted by the College of Surgeons, and for some weeks there seemed to be a fair and good hope that the plan would succeed. But that hope gradually crumbled away before irreconcilable differences of opinion between the College of Physicians and the Society of Apothecaries. In 1815, the former body having declined to undertake to systematise and improve the education of, or to examine, the general Practitioner in Medicine, that work was entrusted by the Legislature to the Society of Apothecaries, and it was carried on solely by the Society till 1860, since which date the College has in a slight degree shared with it in the Medical education of the rank and file of the Profession. How faithfully and efficiently the Society of Apothecaries fulfilled the trust confided to it need not be pointed out here: the proofs are to be found throughout the kingdom by any one who will compare the general, scientific, and Professional acquirements of the average general Practitioner of the present day with those of his predecessors of a generation back. Yet in the face of all this the Conjoint Examination Committee of the College of Physicians proposed to refuse to the Society of Apothecaries any share, however small

numerically, in the appointment of examiners in Medicine on the new board. The Society was willing, we believe, to allow to the College, in recognition of its status as a College of Physicians, the lion's share in the nomination of examiners in Medicine, but felt that it could not possibly give up altogether its legal and long-exercised right to examine in Medicine, as well as in chemistry, therapeutics, Materia Medica, etc. However ready the Society might be to partially efface itself in order to promote, in the interests of the public and the Profession, the establishment of the "unification of examinations," it could not have yielded all the demands of the College Committee without acting most unjustly to its immense body of licentiates, and casting on them a slur that must have aroused their righteous wrath and indignation. No mode was then found of getting over this difficulty, and the scheme was dropped. Lately, however, the subject has been again taken up, and the Colleges of Physicians and Surgeons have, in compliance with the resolutions of the Medical Council, invited the Society of Apothecaries to co-operate with them in *concerting* "a scheme for the constitution and regulation of a conjoint examining board," and some progress has been made in the good work. We are right, we believe, in stating that the former difference of opinion between the College of Physicians and the Society of Apothecaries has been smoothed away, and that there is now good ground for expecting that a conjoint board will be formed. One difficulty, we believe, lies in the admission to the board of the Universities of Oxford, Cambridge, London, and Durham. Without their co-operation the conjoint board for England and Wales would certainly be imperfect, but there are serious impediments in the way of settling the terms of their co-operation. Shall they be represented by examiners or by assessors? Will they make the passing a conjoint board an indispensable preliminary to graduation in Medicine? Is so very small a University as Durham, from a Medical view, to have equal power with the other Universities? It is easy to see that grave difficulties still are to be met before a one-portal-system board can be formed, but it is to be hoped that they will be surmounted. Everything in the aspect of Medical politics urges on the "Medical authorities" the wisdom of their constituting without delay such new examining boards as, while formed with due recognition of existing rights and examining experience and power, will fully command the confidence of the public and the Profession. Should they fail to do so, it is more than probable that some other power may step forward and establish the desired boards with very rough hands and very rude disregard of all existing interests.

Besides the proofs of more active life displayed by the College of Physicians in these efforts for the formation of a conjoint examining board, and the share it took in the battle of the Bill, it also showed more liberality than usual in the admissions to its Fellowship, having this year elected as many as twenty-four of its members to that honour. We do not know whether this should be regarded as a purely spontaneous outburst of liberality on the part of the Council, as a first-fruit of the recommendation-by-Fellows system, or as an acknowledgment of the injury inflicted on the Members, and, indeed, on the Fellows also, by the position given, no doubt unintentionally, by the College to its new Licentiates. At page 452 of our first volume for the year we published the opinion given by Sir Roundell Palmer and Mr. George Denman, "that the Licentiates of the Royal College of Physicians who have obtained their licences to practise Physic subsequently to December 22, 1860, are entitled to call themselves Physicians, and to hold appointments as such under 21 and 22 Vict., c. 90, s. 36, if duly registered as Licentiates of the College, according to s. 27 and schedule (D) of the same Act." So far as the College is concerned, it thus, by its own act, places gentlemen whom, for a low fee and a moderate examination, it licenses to practise as general Practitioners, on the same legal level as those who have paid, or will pay it, large sums of money for the right to be especially recognised as pure Physicians, and to hold public appointments as such. And, so far as we are aware, the College has not as yet made any effort to really remedy this wrong done to its Fellows and Members. We would suggest to the College that the formation of the conjoint board offers it a happy opportunity of escaping from this difficulty. Let it take a dignified position as nominator of the majority of the examiners in Medicine on the board, and then abolish its licence, and content itself with admitting, by special further examination, to the Membership and Fellowship those Licentiates of the board who wish, and will undertake, to practise only as Physicians; and the College will then regain its position as a College of pure Physicians. The list of new Fellows, while containing the names of many whose claim to the distinction was gladly recognised, was, as usual, marked by the omission of others who, in the opinion of the Profession, ought long ere this to have had the choice of accepting or declining that honour.

Several changes have been made in the Council and the Court of Examiners of the Royal College of Surgeons, and the College has made continued advance in the path of wise and well considered reform and improvement. The Council conceded to the fellows and members the right of holding meetings at the College, provided properly supported requisitions for such be presented to the President, and the objects of the meetings be approved of by the Council. The first meeting of the kind was held on March 24 and, by adjournment, April 22, and it may be noted that its result was a most signal and complete defeat of the revolutionary reform party, from which the requisition for the meeting had proceeded. Also, as we have already mentioned, for the first time in the existence of the College, the Council called together the Fellows and Members, on June 28, to consult with them on a question of policy—"the advisability of petitioning Parliament in the name of the Fellows and Members at large in favour of the restoration to the Medical Acts Amendment Bill of the original Clause 18 of the Bill." Early in the year the Council passed the two following very important resolutions:—That "it is desirable that not less than half of the members of the Court of Examiners shall be Fellows who are not and have not been Members of the Council; and that this resolution be carried out as soon as practicable;" and that, "for the future, the elections of examiners in anatomy and physiology shall be distinct from those of examiners in Surgery, for the Fellowship as well as for the Membership of the College;" and shortly after, Mr. Quain and Sir W. Fergusson, the mover and seconder of the first resolution, placed in the hands of the President their resignations as members of the Court of Examiners. Later on it was resolved, in view of the possibility of the Medical Acts Amendment Bill being passed, "to delay further action till after the termination of the present session of Parliament." In August the resolution was confirmed, though, at the same time, it was somewhat altered by the addition of the words "within twelve months," after the words "and have not;" it was also determined not to alter the by-laws of the College, in order to carry out the second resolution above quoted, till after the reception of the report from the renewed Conjoint Board Committee. The Council, however, in October, acted in the spirit of both resolutions in appointing Mr. Savory, never yet on the Council, to a vacancy in the Court of Examiners. Furthermore, the Council has passed several resolutions, with the object of improving and increasing the practical character of Medical education and examination, and of encouraging and offering facilities for the acquisition of British Medical distinctions by the natives of India. Altogether, it must be allowed that, if there are any obstructives in the Council of the College, they must feel they have not at all had what the Americans call a "good time" this year.

Mr. Erasmus Wilson and Mr. Henry Lee obtained seats on

the Council at the annual election in July. The former gentleman delivered, in the earlier part of the year, his first course of lectures as Professor of Dermatology to the College, and, continuing his liberality in matters dermatological, returned his Professor's fee of £94 to the Council, to pay for the fitting up of the cases containing the magnificent collection of models of diseases of the skin which he had presented to the College. What a splendid Profession Medicine would be, were most of the men who have accumulated large fortunes in consulting-practice to imitate Mr. Wilson, and found a scholarship, a short course of lectures, or some other permanent mode of illustrating the science of Medicine!

The British Medical Association held its thirty-eighth annual meeting at Newcastle-on-Tyne, under the presidency of Dr. Charlton, who must have felt unusually great interest in the meeting and gratification at the honourable position he occupied, as he had five-and-twenty years ago at Sheffield delivered the annual address to the Association—when, as the "Provincial Medical Association," it was a much smaller and less powerful body than it now is. We have, at page 261 of our second volume, commented on the addresses delivered during the meeting, and will therefore not speak again of them, excepting to remark that the address in Surgery by Mr. Heath and that of Dr. Rumsey on opening the section of public Medicine were particularly good and worthy of attention. These, as well as the other addresses and full notes of the proceedings of the meeting, were given in our numbers for August. At one of "the general meetings," a motion being made to receive and adopt the report of the Direct Representation Committee of the Association, Dr. Acland proposed an amendment, expressing that the Association had learnt with regret the course pursued by its Committee with regard to the Medical Acts Amendment Bill of the Government, and declaring "that hereby much valuable time has been lost to the public in the settlement of various important measures affecting Medical education, as well as the hearty co-operation of a Government truly anxious to promote the best interests of every branch of the Medical Profession." Dr. Acland was supported by Drs. Paget, Embleton, Rumsey, and Stokes, his colleagues in the General Medical Council, but his amendment was rejected by an overwhelming majority, and the five gentlemen named above, considering that the conduct of the Association by its Direct Representation Committee had caused the withdrawal of the Government Bill, the main provisions of which had been approved of by the General Medical Council, felt that they, as active and prominent members of this body, could not, "in justice to themselves or to the members of the Association, continue any longer to belong to its Executive;" and shortly after they resigned their seats on the Council of the Association. Excepting this, however, the meeting of the Association was a highly successful and harmonious one. Indeed, a perusal of the reports of its daily and nightly proceedings may perhaps have suggested to an outsider, or an unhappily absent member of the Association, the sour grapes remark that the social and festive element of the meeting was becoming rather dangerously prominent.

The fortieth annual meeting of the British Association for the Advancement of Science was held at Liverpool, under the presidency of Professor Huxley, a member of our Profession, and a large share was taken by the Profession in providing intellectual alimentation for the Association, many very valuable and interesting papers having been contributed by Drs. Richardson, Spencer Cobbold, Charlton Bastian, Rolleston, Child, Brown-Séquard, and others of our brethren. The President's able and interesting address was a lucid exposition of the history and present status of the spontaneous generation question, and the spontaneous generation dispute was the prominent and absorbing topic throughout the meeting; but no one will, we suspect, be bold enough to say that any advance whatever was made towards its settlement. It may be noticed, by the way, that at one of the sittings Mr. Wilkinson read a paper denouncing tobacco, and Mr. Campbell one on the tobacco trade of Liverpool, in which he said that in the cigar factory of Messrs. Cope "a thousand girls were regularly employed, and the position of those girls would compare most favourably with that of females employed in any other occupation." These papers led to a warm discussion, which was closed by the President of the Association, who had to confess that, after having been a non-smoker for forty years, he now was in the position of a lamentable pervert; he *felt* that smoking was a comfortable and laudable practice, and found that tobacco in moderation was a sweetener and equaliser of the temper.

The various Medical societies of the metropolis continue to flourish and do good work; but we are sorry to record that the scheme for the amalgamation of the Royal Medical and Chirurgical, Pathological, Epidemiological, Obstetrical, and Clinical Societies, and the Medico-Psychological Association into one great society has been abandoned. We reported last year that the scheme had been prepared and, after very full discussion, adopted by the Medical and Chirurgical Society, and accepted as a basis-scheme by the other societies above mentioned, and that a united committee of delegates from each of the societies had been appointed to discuss it and work it into more perfect shape. The committee devoted much time and labour to their work, and the scheme, somewhat altered, came again before its parent Society and the other societies, and again a large amount of time was given to its consideration. The result was that on the 25th of October a special general meeting of the Royal Medical and Chirurgical Society was held, at which the Council reported that only three of the societies—the Pathological, Clinical, and Epidemiological—had finally accepted the basis-scheme of amalgamation, the two others invited to join in it having declined to do so. The Council offered no recommendation or suggestion as to how the Society should deal with this state of affairs; but Dr. Greenhow proposed, and Dr. Barclay seconded, a resolution to the effect that, if the assenting societies continued in the same mind, they should appoint a committee to obtain a charter and draw up by-laws for the new society. An amendment was proposed to this resolution, adjourning the consideration of the subject for twelve months; but this was withdrawn in favour of a second amendment, moved by Mr. Paget and Dr. Quain (the Presidents of the Clinical and Pathological Societies, and members of the committee of delegates), proposing that "the Council be requested to consider whether, while maintaining the charter and constitution of the Royal Medical and Chirurgical Society, it may be possible to obtain a more complete co-operation with the Pathological, Obstetrical, Clinical, and Epidemiological, or other societies for the promotion of Medical science." After a prolonged discussion, this resolution was carried, first as an amendment, and then as a substantive motion, by large majorities. It was also confirmed by a second and larger special general meeting, held on November the 8th; and thus failed the last attempt to form a large central Society of Medicine having sections devoted to the special study of the various branches or departments of Medical science. The failure is undoubtedly to be greatly regretted, and must have been a severe disappointment to many who had devoted a large amount of time and trouble to the consideration and careful elaboration of the scheme. But it is surely better that the plan should be for a time given up than that an imperfect society, or one with weak sections, should be started in place of the various active and vigorous societies it was intended to absorb. That the new society, if started now, would be imperfect, or very weak in some of its sections, or both, is more than probable, as one of the most active and flourishing Medical societies of the day—the Obstetrical—stood aloof from it, and the latest debates on the subject evidenced that the opposition to the scheme was increasing in strength and energy.

The changes in the *personnel* of the metropolitan Hospitals

and schools were noticed in our Students' Number. Since then some additional changes have been made; thus, the Charing-cross Hospital having been enlarged, Dr. Julius Pollock and Mr. Hird have been promoted respectively to the posts of Physician and of Surgeon, with care of in-patients; at St. Thomas's, Dr. Clapton has been advanced to a Physicianey, and Drs. Stone and Ord have been elected Assistant-Physicians; at King's College Hospital, Mr. J. Wood has become Surgeon, and Mr. Royes Bell has been elected to the vacated Assistant-Surgeoney; and at the Great Northern, Mr. Spencer Watson has succeeded Mr. E. C. Hulme, who has been appointed Ophthalmic Surgeon, and Mr. Osman Vincent has succeeded Mr. Henry Arnott, who has been elected to an Assistant-Surgeoney at the Middlesex Hospital; to this last-named Hospital, also, Drs. Cayley and John Murray have been appointed Assistant-Physicians. Professor Bloxam has been elected to the chair of Chemistry in King's College, vacant by the death of Dr. Miller; and Mr. Russell has been appointed Lecturer on Chemistry in the school of St. Bartholomew's Hospital, in place of the late Dr. Matthiessen.

The new St. Thomas's Hospital has not yet been opened. A very complete system of baths has been added to University College Hospital. The old *Dreadnought* has at last ceased to be a Hospital, the patients having been transferred to their new quarters in the Infirmary of Greenwich Hospital, and Mr. Harry Leach has been appointed Surgeon to this new Seamen's Hospital. The Merchant Taylors' Company has established and opened a new Convalescent Home at Bognor, on the Sussex coast. It contains forty beds, and is for the reception and maintenance of patients in indigent circumstances, recently or about to be discharged from any of the Hospitals in or near London, and for such other cases among the poor of the metropolis as the committee, who meet in London every Tuesday, may consider proper objects for admission. Mr. Abernethy Kingdon is the Examining Surgeon to the Company for London.

Much of the pleasure of our editorial labours has arisen from our having had now and then to record dignities or honours conferred on members of the Profession. Thus, Sir Thomas Watson was appointed Physician-in-Ordinary to her Majesty on the death of her long-trusted and honoured old friend and servant Sir James Clark; while Dr. Burrows was appointed Physician-Extraordinary in succession to Sir Thomas Watson. Professor Lister has been made Surgeon-in-Ordinary to the Queen in Scotland, in place of the late James Syme; and Dr. Mackay has been appointed Honorary Surgeon to her Majesty, *vice* Dr. Armstrong, made Honorary Physician. All these appointments evidence the same judgment and discrimination that have all but invariably distinguished the Professional Court appointments throughout her Majesty's reign. Dr. Eustace Smith has been honoured by being appointed Physician-in-Ordinary to the King of the Belgians, and was at the same time decorated with the Order of Leopold. Dr. Gavin Milroy has received the well-merited acknowledgment of his services to sanitary science of a pension of £100 a year. At the Oxford commemoration this year, the D.C.L. of that University was conferred, *honoris causâ*, on Dr. Paget, Dr. H. Bence Jones, and Sir William Jenner, Bart.; and the M.A. on Mr. Frederick Symonds, the well-known Surgeon of Oxford; and during the meeting of the British Medical Association at Newcastle-on-Tyne, the neighbouring University of Durham conferred its Hon. D.C.L. on Drs. Charlton, Chadwick, Falconar, Sibson, Acland, Paget, and Stokes; and Mr. Spencer Wells has received the diploma of Honorary Fellow of the Royal Society of Medical and Natural Science of Brussels, "in consideration of the eminent services he has rendered to science and humanity."

From this short and imperfect list of rewards and honours, we turn to the sadder duty of briefly noticing the gaps death has made in our ranks during the year. As usual, "fever caught in the discharge of duty" has numbered many victims, among whom may be mentioned Mr. E. W. Minter, aged 22; Dr. A. Thomas, aged 23; Mr. George Hanbury, 29; Mr. J. C. Skinner, 22; and Dr. R. Taylor, of Durham, at the age of 37. Several have fallen in the ranks, succumbing while still in the prime of life to the labours and anxieties of Professional work, as Sir W. C. Hood, M.D., Dr. Robert Growse, Dr. Jeaffreson, of Leamington, Dr. T. Harold Fenn, Dr. W. H. Jephson, Deputy Inspector General of Hospitals, Dr. John Meyer, Mr. C. H. Moore, Mr. J. Z. Laurence, Dr. Lane Rooke, Dr. W. Walker, of Islington, Dr. J. Paley, Dr. Andrew Anderson, of Glasgow, and Dr. R. S. Finch, of Wimbledon. It was with deep regret, also, that we recorded the deaths of Dr. H. L. Kempthorne, at the early age of 29, and Dr. Hugh Grainger Stewart, at 35, and the great loss sustained by chemical science in the deaths of Dr. W. A. Miller and Dr. Augustus Matthiessen. Not a few, happily, of those whose deaths we have recorded, and of whom we have given obituary notices, had lived on far into ripe old age, and had enjoyed a period of honoured repose and rest before altogether leaving us—among whom we will mention Dr. John Bright, who died at the age of 87; Dr. David Macloughlin, at 86; Dr. Andrew Fergusson, at 83; Dr. W. Charles Collier, at 84; Sir James Clark, Bart., at 81; Mr. Richard Welbank, at 73; Mr. John Bacot, at 89; and Dr. Jonathan Toogood, at 87. Some, indeed, of those who died in harness, had also reached nearly to, or even much beyond, the honoured age of three score and ten, as Dr. Adam Martin, of Rochester, who died at 76; Dr. Price, of Margate, at 82; Dr. Maclachlan, at 63; Dr. James Clement, M.P., at 66; Dr. John Adamson, of St. Andrews, at 60; Dr. W. D. Chowne, at 79; Dr. James Copland, at 78; Dr. R. Uvedale West, at 60; and Messrs. J. Chitty Clendon, and Edward Lacy, at 60, and 69; while we have reserved to the last the names of three men the loss of whom has been lamented by the Profession and the public far beyond the limits of Great Britain. Mr. Nunneley, who died at the age of 61, was one of the best known and most eminent of the provincial Surgeons of England; while James Syme, and Sir James Y. Simpson, the great pillars of the Medical School of Edinburgh, were honoured in life, and are mourned in death, throughout the civilised world; and their fame as teachers and Practitioners will only die when British Medical science shall be no more heard of.

We must not close even so brief a record as this without recurring to the great regret with which we put on record the death of Professor von Graefe. Though only 44 when he died, he had done more, perhaps, to advance ophthalmological science than any other man living, and was certainly the most eminent and most widely known ophthalmic Surgeon of the day.

We may now be permitted to occupy a brief space with a glance through the scientific and practical contents of our volumes for the year. As we are not in the habit of making large and full-sounding professions, at the beginning of the year, of the riches we are about to pour out before our readers, we may, perhaps, be more fairly entitled, at the end of the year, to point out with what valuable and instructive contributions we have been actually able to enrich our pages.

We have had the pleasure of continuing the able and highly appreciated "Lectures on Experimental and Practical Medicine," by Dr. B. W. Richardson; the "Lectures on Clinical Surgery," by Mr. T. Bryant; lectures on "Disease: its Nature and Treatment," by Dr. Lionel Beale; and the Clinical Lectures by Dr. Hermann Lebert, Professor of Clinical Medicine in the University of Breslau. We have also given lectures "On Ophthalmic Subjects," by Mr. Haynes Walton; on "Aphasia," by Dr. Niemeyer; on "Epispadias," by Professor Billroth; on "Visceral Neuralgia," by Dr. Albert Eulenburg; on "Subcoracoid Luxation of the Humerus," by Professor Richet; on "Shaking Palsy," by Professor B. Ball; and on "Practical Helminthology," by Dr. T. Spencer Cobbold. Also, "Clinical Lectures on Pneumonia," by Dr. George Johnson; and "On

Delirium Tremens," by Dr. Handfield Jones; and besides these, and Mr. Erasmus Wilson's able "Lectures on Dermatology," we have been able to commence a course of what, we are sure, will be acknowledged to be most able lectures on "Analytical Pathology," by Dr. W. Moxon.

Under the head of "Original Communications," we have given papers on subjects of interest and importance by many of the highest authorities and the best known workers of the day, among which papers we may mention a "Therapeutic Note on Chloral," and one on "Sudden Death in Ovariotomy, while under the Influence of Chloroform," by the late Sir J. Y. Simpson, and his "Historical Letter on the Introduction of Anæsthetics;" papers on "Elephantiasis," "Gunshot Wounds of the Thorax," "Paracentesis in Synovitis of the Knee-joint," and on "Jackal-bite," by Professor J. Fayrer; on "Hoarseness and Aphonia," by Dr. G. Johnson; on "Lumbar Colotomy," and "Operations on the Lower Jaw," by Mr. C. F. Maunder; on "Foot and Mouth Exanthem closely simulated in the Human Subject," and on "Labio-glosso-pharyngeal Paralysis," by Mr. Lawson Tait; on "Dermatitis Exfoliativa," by Mr. Erasmus Wilson; on "The Use of Buttermilk in rearing Infants," by Dr. A. M. Ballot; on the "Treatment of Otitis Media Purulenta," by E. van Mellingen; on "Acute Hysteria in the Male," by Dr. Althaus; on the "Treatment of Chronic Gonorrhœa, etc., by Ice," by Dr. Gustav Adolph Abrath; on "Embolism of the Sylvian Artery," by Dr. T. Clifford Allbutt; on "Reaction of Aortic Aneurism on the Heart," by Professor Axel Key; on the "Use of Raw Meat in Diarrhœa and Dyspepsia," and on "The Sanitary Topics of the Day," by Dr. R. Druitt; on "Severe Chorea during Pregnancy, treated with Chloral," by Dr. James Russell; on "Sciatica, cured by the Hypodermic Injection of Morphia," by Dr. H. Lawson, on "Mooltan and Frontier Sores," by Assistant-Surgeon Nathaniel Alcock, by Assistant-Surgeon Dr. John Candy, and by Dr. John Harley; on the "Contagiousness of Yellow Fever," by Dr. J. L. Paterson; on "Sudden Death during Convalescence from Diphtheria," by Mr. G. F. White; "Irish Dispensary Jottings," by Dr. J. A. Trayer; "Experiments with Conia," by Dr. D. Dyce Brown and Dr. A. D. Davidson; a "Singular Case of Umbilical Hernia, and Artificial Anus," by Mr. J. P. Hayes; papers on "The Administration of Anæsthetics," by Dr. A. Ernest Sansom; on "The Cholera Epidemic in Sweden, 1866," by Dr. J. W. Moore; on "Gangrene of the Lung," by Dr. Octavius Sturges; on "Disease in Sicily," by Dr. H. H. Corfield; on "Two Cases of Hip Disease," by Dr. Wm. Cooke; on "Treatment of a Case of Sunstroke by Venesection," by Dr. J. H. Salter; on "Iodine as a Topical Application to Wounds," by Dr. J. Stirton and by Dr. W. Whitehouse; on "The Radical Cure of Hydrocele by Seton," by Mr. Henry Smith; on "A New Method of Treating Ulcers by Transplantation of Skin," by Mr. C. Dobson Nelson; a "Case of Poisoning by Carbolic Acid," by Dr. A. Wiltshire; "Notes from the War," by Mr. A. Trehern Norton; a "Case of Hydrophobia," by Mr. T. Davidson; a case of "Enormous Hydatid Cyst in the Brain," by Mr. Geo. Yates; "Cases illustrating the Effects of Hydrate of Chloral," by Dr. W. Strange; papers on "Indian Hemp in Menorrhagia and Dysmenorrhœa," by Dr. A. Silver; on "The Relative Temperature of the Right and Left Sides of the Trunk," by Mr. E. T. Blake; on "Early Puncture in Abscess of the Liver," by Dr. G. Scott; on "Treatment of Fracture of the Lower End of the Radius," by Mr. J. Rhand; on "The Treatment of Epilepsy," by Mr. Walter Tyrrell; and on "Arsenic in certain Painful Affections of the Stomach and Bowels," by Dr. A. Leared; also, papers from Dr. Ballard, on "A Localised Outbreak of Typhoid Fever in Islington;" Mr. Metcalfe Johnson, on "Polymorphism or Xenogenesis in Disease;" Dr. John Barclay, on "Enuresis and its Treatment by a New Remedy;" and from Dr. L. Beale, on "Mr. Simon on Zymotic Pathology;" besides valuable communications, for which we have had to thank Surgeon-Major J. W. Farquhar, Dr. R. H. Bakewell, Dr. C. A. Gordon, C.B., Drs. G. H. Phillipson, A. Mackintosh, and R. Shingleton Smith; Assistant-Surgeons H. F. Nathan, W. H. T. Power, and Sandford Moore, and many other able contributors.

In our "Hospital Reports," our brethren have been supplied with concise, but clear and practically ample, records of interesting and important cases illustrative of the most recent and the most approved methods of Medical and Surgical treatment in the metropolitan and provincial Hospitals; and, as far as the pressure on our columns would allow, we have given brief notices or reviews of all important new books or essays, English and foreign, and have also recorded the proceedings of the various Medical societies, as showing the directions in which speculation, hypothesis, and experiment are most actively working, and the practical progress actually achieved in the different departments of Medical science. The "Topics of the Day" have supplied an able and instructive *résumé* of the most important and the most talked-of events of each week, written in a style that must tempt and refresh even the busiest of Practitioners; and our other "Notes" from at home and abroad have supplied "light reading" of an instructive and useful, as well as pleasant, kind.

In our editorial articles, besides offering criticism, approval, encouragement, or warning whenever called for by Professional conduct, honour, and interest, we have also given notices and comment on many of the matters or theories uppermost in men's minds. Thus, we have given articles on "Prostitution and the Westminster Review," the "Contagious Diseases Act," the "Common Law of England in relation to Contagious Diseases," on "Venereal Disease in the French Army in 1867 and 1868," and on "Gaskoin's Villalobos: Introduction of Syphilis." In connection with the stir raised by Professor Tyndall, we have given articles on "The Dust in the Sunbeam," on "The Organic Matters breathed in the Air," on Huxley and Tyndall," on "Dust and Haze," on "Germs," on the "Treatment of Open Wounds," and have given Dr. Richardson's "Notes on the Medical Aspects of the Germ Theory." We have commented on "The Mordaunt Case in its Medical Aspects," on the trial of "Williams *v.* the Duke of Somerset," on "Legislation for Habitual Drunkards," on "Our Out-patient System," and on "The Meeting to Consider Out-patient Administrative Reform," on "Direct Representation," on "The Act Regulating Schools of Anatomy," on "Mistakes in Diagnosis," on the "Prospects of Poor-law Medical Reform," on "The Choice of Books," the "The Enfranchisement of Medical Teaching," on "Darwinism in Chemistry," on the "Recent Progress of Pathology," and "The Present View of the Condition called Malignancy," and on "Chemical Constitution and Physiological Action;" while some of the changes threatened by the Medical Bill, or attempted in our Medical schools, have called forth, among others, the articles on "Professional Morals," on "Education," and those called "Sexualism in Edinburgh," and "Squat like a Toad."

Our pages have also contained a number of valuable essays or notices which would not fall under any of the classes of subjects already spoken of. Among these we may mention Dr. E. Long Fox's "Clinical Observations on the Temperature of Disease," illustrated by the most complete series of thermometric charts that has yet been published in England; the "Analyses of Patent Medicines;" an "Account of a Visit to the Trappists," as illustrative of the influence of a strictly vegetable diet on the human constitution; a report on the "Inebriate Asylums in the United States;" reports on "The Excision of the Shoulder-joint, of the Elbow and the Wrist-joints, of the Head and Neck of the Femur, and of the Knee and the Ankle-joints, in consequence of Gunshot Injuries," and on "Gunshot Injuries of the Head;" reports on "Milk Supply," with analyses; reports on "The Teaching of the

Out-patients' Departments of our Hospitals;" articles on the "Adulteration of Food and Drugs," on "Australian Wines," on "Port Wine, Old in the Wood," and a "Contribution to the History of Extract of Meat;" Dr. J. Macpherson's "Notes on Chalybeate Waters," notes on the "Annual Report of the Poor-law Board," on "Tarasp in the Lower Engadine;" a most interesting series of "Autobiographical Recollections of the Profession," by Mr. J. F. Clarke; and a series of articles on the "Progress of Therapeutical Science." And, besides the "Notes from the War," of Mr. Trehern Norton, we have given "Letters from Our Own Correspondent at the Seat of War," "Surgical Notes on the Gallo-German War," by a Student; and several other articles on the "Surgery of the War," the "Arrangements for the Sick and Wounded," and so on.

Altogether, on looking back at the results of our labours during the year, we feel a happy assurance that, thanks to our numerous and able contributors and collaborateurs, our last two volumes are worthy of the confidence and favour so long and so fully given by the Profession to the *Medical Times and Gazette*. And while gratefully acknowledging this confidence, and warmly wishing all our brethren, at home and abroad, a happy, prosperous, and peaceful new year, we must notice the short letter of farewell from our publisher, Mr. Churchill, in our present number. Such crowds of students and Practitioners have felt grateful to Mr. Churchill for his admirable series of "Manuals," such numbers of our brethren have had to acknowledge the interest he has taken in their careers and their labours, and his skill and care in bringing out their books, and have been indebted to him for wise advice, encouragement, help, and kindnesses, that his retirement will be felt by the Profession like the parting from an old and well-trusted friend and ally; and they will heartily wish that he may enjoy, during many years of health and happiness, the rest which he has so thoroughly earned by—to quote from his own letter—his "earnest purpose in the fulfilment of duty, and a high sense of integrity guiding and regulating his transactions."

THE WEEK.

TOPICS OF THE DAY.

The first meeting of the Committees of the Royal Colleges of Physicians and Surgeons, and of a deputation from the Society of Apothecaries, on the subject of the conjoint examination board, will take place at the Royal College of Surgeons on Friday, January 6. We are only expressing the general feeling of the Profession when we say that we hope a fair and practical scheme will be the result of their deliberations.

The annual meeting for the election of officers of the Pathological Society will take place on Tuesday next. The Council propose Mr. Hilton as President, than whom no one more worthy to succeed the long list of worthies who have filled the chair could be chosen. Dr. Quain, whose Presidency has been signalised by much valuable work, and the prevalence of an undoubtedly improved tone in the Society's meetings, retires to the dignified ease of a Vice-Presidency, and Dr. Herbert Davies and Mr. John Cooper Forster are proposed as new Vice-Presidents. Dr. Edwards Crisp, Dr. Wilks, Mr. Gay, Mr. T. Holmes, and Mr. Simon will continue to enjoy the same office. The Treasurer (Dr. Murchison) and the Honorary Secretaries (Dr. W. H. Dickinson and Mr. J. W. Hulke) will be re-elected. The new members of Council proposed are—Dr. W. H. Broadbent, Dr. W. Cholmeley, Dr. W. S. Church, Dr. T. H. Green, Dr. R. Martin, Dr. F. Robinson, and Mr. T. J. Ashton. Dr. F. E. Anstie, Dr. H. Charlton Bastian, Dr. W. Cayley, Dr. C. H. Fagge, Dr. W. Marcet, and Messrs. J. Couper, J. Croft, A. E. Durham, G. Lawson, C. F. Maunder, T. P. Pick, W. Potts, and W. Squire are proposed for re-election.

The annual meeting of the Obstetrical Society will take place on January 4. The following are the names of gentlemen recommended for office by the Council, who have not held the same offices in the present year:—Dr. Braxton Hicks is nominated for the President's chair. The new Vice-Presidents are to be, Dr. Henry Gervis, Dr. D. L. Roberts, of Manchester, and Mr. John Scott. Dr. E. J. Tilt is to be the Treasurer, and Dr. J. J. Phillips the new Honorary Secretary. Dr. Alfred Wiltshire is to take the charge of the Society's library as Honorary Librarian, and Dr. John Brunton, Dr. S. D. Goss, and Dr. Draper Mackinder, of Gainsborough, Dr. Adolphus Rasch, Dr. Henry Savage, Dr. Leonard W. Sedgwick, and Mr. H. W. Sharpin, of Bedford, are nominated as Members of Council.

Dr. Livingstone is reported to have been at Mozambique in September last, waiting for an homeward-bound vessel.

The Bingen Hospital, erected for the relief of the wounded of both nations of combatants with English contributions, has been presented by the committee to the Relief Committee of Cologne—a breach of neutrality which may be set against some of the rifles supplied to the French.

DR. C. A. GORDON, C.B.

A Portsmouth contemporary states that at the fortnightly meeting of the Portsea Island Society for the Culture of Science and Literature, on Tuesday last, the Honorary Secretary (Dr. J. W. Cousins) read a letter which he had received from Dr. C. A. Gordon, C.B., Deputy Inspector-General of Hospitals, and which, on the proposal of the Rev. J. Knapp, who presided, was entered in the minutes of the Society, of which Dr. Gordon is the President for the year now so near its close. Our readers will remember that Dr. Gordon has been in Paris since before the investment of the city by the Prussians on a special mission of observation from our Government. We are happy to observe that, notwithstanding the very serious nature of affairs inside Paris, the scarcity of food, and the anxious nature of the duties which have devolved upon Dr. Gordon, he writes in good spirits, and states that his health continues unimpaired.

DINNER GIVEN BY THE PRESIDENT OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.

His Excellency the Lord Lieutenant of Ireland, K.G., attended by Captain Stirling, A.D.C., honoured Dr. Banks, President of the King and Queen's College of Physicians, with his company at dinner, on Tuesday, the 20th inst., at Dr. Banks' residence in Merrion-square. Among those present to meet his Excellency were—the Right Hon. Lord O'Hagan, Lord Chancellor of Ireland; the Right Hon. Sir William Mansfield, G.C.B., Commander of the Forces; the Right Hon. the Master of the Rolls; the Right Hon. John T. Ball, M.P. for the University; Sir Dominic Corrigan, Bart. M.P., Physician-in-Ordinary to the Queen in Ireland; the Rev. the Provost of Trinity College; Dr. Stokes, F.R.S., Physician-in-Ordinary to the Queen; Drs. Adams and Porter, Surgeons-in-Ordinary to the Queen in Ireland; Dr. Walsh, President of the Royal College of Surgeons; Dr. Beatty; Dr. Gordon, Vice-President; and Dr. Little, Registrar of the College of Physicians, etc.

ARMY MEDICAL RESERVE.

In the *Medical Times and Gazette*, December 17, appeared a thoughtful letter from an "Army Surgeon" on the subject of the "Scheme for the formation of an Army Medical Reserve, detailed in the *Medical Times and Gazette*, October 22." Admitting, as most would, that were a "plébiscite" of the executive Medical officers taken, the recent proposals for abolishing the fixity of tenure of regimental service would be negatived by an overwhelming majority, the "Army Surgeon" takes exception to the suggestion of establishing a reserve from Surgeons of twenty years' service by offering them the pension at twenty-five years'—viz., 20s. a day—because he prefers completing the full period of service, and acquiring a right to that pension without being further hampered by any liability to the State. In this he is forgetful that occurrences,

accepted during the earlier periods as ordinary duties, become during those last five years absolute hardships. Three or four moves among stations at home are, to men with families, pecuniarily ruinous, and an order to return to foreign service is a disruption of all family ties at a time when a father's presence is most necessary to those for whom he is responsible. War is, as yet, an abnormal condition in Europe, and when it comes, absence, as a member of the Medical reserve, must be cheerfully accepted. The "Army Surgeon" points out the necessity of retired Medical officers supplementing their pensions by practice, or business of some kind, and lays this down as an insuperable obstacle to removal for reserve service, while, at the same time, he considers it thereby proven that, "from short service Assistant-Surgeons only can a reserve be formed," entirely overlooking the fact that the force of his argument, against the possibility of a retired Surgeon foregoing his supplementary employment to return to duty, becomes manifold intensified in the case of a short service Assistant-Surgeon who has reverted to civil life. To the former, his pension is his main support; his practice supplementary. To the latter, his practice is his main support; his pension but a trifling addition. It is, therefore, obvious that the able discussion of the "Army Surgeon" has but helped to establish the validity of the proposals contained in the circular on Army Medical Reserve.

OVARIOTOMY IN SOUTH AMERICA.

The first operation of this nature in Buenos Ayres, and perhaps the first on the continent of South America, was performed by Dr. Alston, of the above-named city, and late of Glasgow, in the month of April of the present year. The cyst was multilocular, and of great size, weighing, when emptied of its fluid contents, forty-two pounds. The patient, a widow, aged 42, made an excellent recovery, being able to leave her house on the twenty-second day.

THE SANITARY STATE OF LEEDS.

This important town has been inspected by a Sanitary Commission of the Government. The state of sickness and the mortality have been so appalling that the appointment of this Commission was "not before time." It has been stated on good authority that more than half the mortality of Leeds arises from preventible causes, and yet little or nothing appears to have been done by the local authorities to put a stop to such a fearful state of things. At a meeting of the Ladies' Sanitary Committee, held last week, it was shown that independent inquirers had arrived at the same conclusion as Mr. Radcliffe, the Government Inspector. The death-rate was enormously high—one-third, in fact, higher than it ought to be. In other words, hundreds of lives are annually sacrificed in the town of Leeds simply because they, as a community, have neglected, and are neglecting, their boundeu duty towards themselves and their fellow-citizens. "Cellar dwellings, open privies, and personal uncleanness amongst the lower orders have been, more than anything else, the cause of that high death-rate which has given Leeds an unenviable notoriety amongst the large towns of the United Kingdom." The *Leeds Mercury*, in a trenchant leading article on the subject, thus concludes:—

"It may be asked upon whom we place this grave responsibility with respect to the health of the borough. We have no hesitation in answering the question. It is the Town Council of Leeds, and more particularly the Health Committee of that Council, which must be regarded as responsible for the present unsatisfactory state of the borough, and for the high death-rate which has so long prevailed amongst us. There can be no doubt upon this point. The first and most important duty of the Town Council is the maintenance of the health of the town. Neglecting that duty, they neglect the very work they have been appointed to perform, and betray the interests of the community which they represent. That they have thus neglected their duty in the past is made only too clear by the present state of things. If the Health Committee of the Town Council had felt the grave responsibility laid upon them, and had acted accordingly, we should have needed the presence of no Government Inspector amongst us. As it is, although we have a Health Officer, paid for the special purpose of attending to sanitary matters, and a Health Committee appointed for the purpose of assisting him in his labours, the town of Leeds has been permitted to fall into a condition which is a scandal to all who are in any way responsible for it. The time has come when this state of things must be declared to be utterly intolerable. We can no longer permit private interests or antiquated prejudices to stand in the way of sorely needed improvements. We must ask the Town Council to show that it is not absolutely forgetful of the duty entrusted to it, and that it does not intend that Leeds should be periodically humiliated by the visits of these inspectors from London. If those whom we hold responsible, and solely responsible, for the sanitary condition of the borough will really exert themselves, and do their duty, we shall have no more need of Government inquiries into the sanitary state of Leeds."

FROM ABROAD.—PROFESSOR BILLROTH'S LETTERS FROM THE SEAT OF WAR.

On the breaking out of the war, Professor Billroth was requested by the Austrian Aid Society to render his services, and with a well-stored instrumentarium and a large sackful of bandages he at once started off to the scene of action. In some interesting letters addressed to a colleague, which he has since published in the *Berliner Wochenschrift*, he gives an account of his procedures, and discusses various important questions in military Surgery, founded upon a very wide field of observation in the vicinity of the early battle-fields. His chief point of observation was at a Hospital founded at Mannheim, but he visited, as inspector, all the various Lazareths which were founded at Weissenberg, Wörth, and other places, seeing thousands of cases and coming into intimate communion with the various Surgeons in charge of them. From these letters we purpose selecting a few of the most prominent opinions delivered, passing over, from want of space, the interesting narrative in which they are embodied.

In respect to the transport of the wounded, he observes, writing from Weissenberg, that it was sad to see during the first week the trains arrive literally packed with the wounded, and unaccompanied, as these often were, with any Medical attendants, who were, indeed, too few on the battle-field to be spared for this purpose. Some of them had to be replaced, and others, whose sufferings were rendered insupportable by the motion of the trains, and whose cries created great excitement amongst their companions, had to be removed. When it is remembered how difficult it is for the most experienced Surgeon to at once decide as to the relative gravity of a gunshot wound, it need excite no surprise that the young men upon whom the selection devolved sometimes allowed those to be transported by the trains who had been better left behind, and others who even died on the journey. Still, with all the drawbacks to the early transport of the wounded, Professor Billroth is convinced that, by putting it into force, far more of the wounded will recover than if they were distributed in the small towns in the vicinity, the difficulties of communication between which were excessive, and the *requirenden* capabilities of which would be exhausted in a few days. The patients would then have to be moved when fever and profuse suppuration had set in. At an early period, too, after the battles of Weissenberg and Wörth, the Aid Societies of Munich, Carlsruhe, Stuttgart, etc., provided comfortable beds and hammocks, upon which the patients remained, and were carried lying on them from the railways to the Hospital wards of the respective towns. Under the care of experienced Surgeons, almost every patient is in this way transportable.

Professor Billroth observes that, when involved in all the turmoil of a railway terminus, the thought would ever recur to him that the helping individual, in face of this enormous mass of wounded, was but as a drop in the ocean; and at first

he felt so overpowered that the question sometimes presented itself to him, whether there was any use in proffering his aid. In the presence of such events, one feels as in some stupendous occurrence in nature, and it looks like irony to occupy oneself with an individual while thousands are sacrificed. One must, in fact, in these situations, summon up an extraordinary amount of energy if one would not become completely apathetic. Those who had passed through similar scenes in Bohemia declared that the number of wounded far exceeded those after Königgrätz; and this is credible enough, seeing that this was the first time that two armies were opposed to each other with rapidly-firing weapons, giving rise to an immense number of casualties in proportion to the duration of the battles. The number of wounded which were produced at Leipzig in the course of several days, we now have on our hands in a few hours; and it is quite impossible that the number of Surgeons and means of succour can be proportionally increased.

Professor Billroth brings additional evidence to that which we have had of late from various sources, that the wounded receive but scant aid from the Prussian military authorities. The first wounded brought into Weissenberg had been twenty-four hours without receiving any aid; and, what with the Prussian Lazareth being too distant, and a large Bavarian field Lazareth having no orders to move on, aid of all kinds would have been wanting had not Professor Billroth transported his numerous assistants to the scene of need, and there established a Lazareth. He thinks the organisation of the Prussian field Lazareths are utterly defective, and observes that if the military Surgeons, in place of undertaking the treatment of the wounded, content themselves with supplying the first necessary aid on the field of battle, they can acquire no experience in relation to the treatment of gunshot wounds, and no practice in operative Surgery. In their constant change of place and patients, they can acquire no interest in the wounded; for it is only the observation of the whole course of the cases that can scientifically and morally interest the Surgeon, and teach him the resources of science and art. The incessant following the army, dressing and transporting the wounded amidst continuous tumult, or wandering here or there without definite employment, relaxes attention, and gives rise to weariness and discontent, because it is really a labour from which they can scarcely see any of the results.

(To be continued.)

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

December 28.

The effects of the explosion at Witton, in loss of life, have been indeed appalling. Out of the fifty-one sufferers taken to the Hospital—in spite of the extraordinary care and attention, which reflect the highest credit on the Medical officers—thirty-four have already succumbed to their frightful injuries, these being inflicted principally on the face, trunk, and extremities, and of such a kind as to fill the beholder with the greatest pity and horror—the bodies of the victims in several instances being almost reduced to a charred mass, giving them the appearance of mummified negroes. Sad, also, to relate, many more deaths are likely to ensue; and out of the seventeen still alive in the Hospital, it is predicted that not more than one-half will recover. Lung complications have been the causes of death, with effusions and collapse. To meet such emergencies in the future, the governors of the Hospital have, with incredible rapidity, erected a large commodious ward in the grounds of the institution, apart from the other wards, for the reception of such cases. The building is built of dry bricks and stone, is substantial in character, not over-ornamental in design, and contains every needful appurtenance; and this erection has been reared up in the surprising space of six days, and, from the kind of material used in its construction, is fit for occupation at once. It is a pleasure to relate that the ordinary patients of the Hospital, during this gloomy period, have received no harm from the excitement in, and overcrowding of, the wards. This might have occurred had the dressers and nurses been derelict in their duties, which carried them amongst many sources of infection from suppurating wounds and fetid sores.

The vacancy in the Medical staff of the Children's Hospital, caused by the death of Dr. Earle, has been filled up by the appointment of Dr. James Johnston, who is also one of the Physicians at the Queen's Hospital. The election is as popular as Dr. Johnston, and gives general satisfaction. The post was also competed for by Dr. Mackey, who presented copious and most excellent testimonials.

At a meeting to-day of the board of guardians, it was decided not to establish a Dispenary, although the motion was brought up and approved of by their own sub-committee, the chairman of which is Mr. J. Clay, M.R.C.S. An amendment to the effect that the out-door Medical relief be continued as at present was carried by a large majority. Consequently, the guardians and the Poor-law Board remain at issue. There appears no prospect of an alteration of the present system of out-door Medical relief.

Mr. Clay, not meeting with that support he had a right to expect as chairman of the sub-committee, has felt it incumbent upon him to resign. This will soon be felt, as he has been their working head ever since the Out-door Medical Relief Committee was established.

GENERAL CORRESPONDENCE.

CAMBRIDGE EXAMINATIONS.

Letter from Dr. Humphry.

[To the Editor of the Medical Times and Gazette.]

Sir,—Referring to the criticisms on the examinations for M.B. in your last week's number, I should be glad to state that, in accordance with the principle adopted in Cambridge of endeavouring to select the best examiners, whether they are members of the University or not, and in some instances giving a preference to those who have not been educated in Cambridge, the examination in anatomy to which you refer was conducted, and the questions you have printed were set, by one of the most eminent London teachers and examiners. The result of considerable experience, part of which he has derived as an examiner at the University of London, has convinced him that the best plan in conducting a pass examination, even for a University degree, is to set simple questions, every one of which the candidate is expected to answer well. If my memory serves me correctly, I am giving his own words, spoken to me at the time of the examination; and I would beg your readers, by the light of this remark, to re-peruse the questions and form their own judgment upon them. Though I took no part in the examination, this gentleman was good enough to explain to me the method which he followed; and I can bear witness to the great pains which he took in estimating the answers and in conducting the *viva voce* examination, which, though not taken into account in the criticism (surely it would, to say the least, have been only just, on the part of a critic, to have informed himself upon this point), was, as it always is, upon the dissected subject, and is the most important part of the test in this and the other subjects of the examination. The fact that 50 per cent. (three out of six—one of the three rejected, it may be observed, being already a Member of the Royal College of Surgeons of England) were rejected, is an evidence that the amount of information required is as much as candidates who have the advantages of instruction at the best schools in the kingdom are, on the average, capable of producing.

I am, &c.

G. M. Humphry, Professor of Anatomy.

Anatomical Museum, Cambridge, December 26.

*** We have no animus against the University of Cambridge, or any tendency to depreciate any department of it. On the contrary, our pages any time the last ten years will show that we have always advocated a University education, when possible, for Medical students, and have urged our younger readers to avail themselves of the social and intellectual advantages which Cambridge bestows. The criticism which has appeared in our columns averred that the examination in anatomy and physiology is not above the level of that for the M.R.C.S.E. A comparison of the printed papers with those of the College of Surgeons will substantiate this; and

it must be remarked that a *vivâ voce* examination is common to both. That 50 per cent. of the candidates, including a M.R.C.S.E., were plucked, speaks well for the more practical portions of the M.B. examination.

QUERY AS TO AMPUTATION OF THE CANCEROUS BREAST.

[To the Editor of the Medical Times and Gazette.]

SIR,—Many years since, when a student of Medicine and Surgery, and a dresser in a public Hospital, I witnessed a great number of operations for the removal of cancerous breasts with the knife, and I do not recollect of any case in which the operation was attended with an immediately fatal result. In some the wound healed up kindly, and the patients went away very satisfied with the result; but in some the disease quickly reappeared, and proved fatal, and they gained nothing by the operation. The subsequent histories of many of these cases were not known; they went into the country, and from time to time we heard that some of them had ended unfavourably. I have seen many cases of cancer of the breast in London, and met in consultation some of the most eminent Surgeons to determine the propriety of operating. Great difference of opinion has prevailed upon the subject, but, I have generally found that the least experienced Surgeons were the most forward to urge the removal of cancerous breasts, and I have seen more than one case where death speedily followed the operation, when it was performed under the most favourable circumstances. Sir B. Brodie states that Mr. Cline and Sir Everard Home, "both men of great experience and sound judgment, would scarcely ever consent to the removal of a scirrhous breast, under any circumstances." In one of the last cases which I saw in consultation with Sir B. Brodie, he recommended the operation, which was skilfully performed, but the disease soon returned, and proved fatal. Amputation of the cancerous breast is an operation still recommended and performed by several eminent Surgeons, and probably much more frequently than it was before the introduction of the use of chloroform into the general practice of Surgery, the consent of patients being much more readily obtained now than it was some years since.

Under what circumstances ought the operation to be performed? Is there any permanent benefit from cutting out a cancerous breast even in the early stages of the disease?

London, December 23. I am, &c. MEDICO-CHIRURGUS.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 20, 1870.

RICHARD QUAIN, M.D., President, in the Chair.

DR. TILBURY FOX brought before the Society a man suffering from Pityriasis Piluris of Devergie. Six months ago he had been suffering from pityriasis rubra, which subsequently cleared off between the hair follicles, they remaining plugged. The condition called psoriasis was the remains of the antecedent affection.

Dr. DUFFIN thought the case ought rather to be called one of lichen rubra; he had seen two like it. The pityriasis rubra of Hebra was not the same; it was generally fatal. In lichen rubra there was no infiltration into the skin, and it was gradual in its onset.

Dr. FOX said the papules which would cause the disease to come under the head of lichen were here secondary.

Mr. J. D. HILL read a report on the Tumour he had removed from the scapula, and exhibited at a former meeting. It was fibroid in character, consisting of fibres and cells, the latter somewhat spindle-shaped.

Mr. SPENCER WATSON exhibited a specimen of Spindle-celled Sarcoma, removed from the leg by Dr. Walker of Henley. It had been opened, and a black, fungoid mass protruded from the incision, the parts about being inflamed. The mass was frozen and removed, but it returned again and again, each time being removed. At that date it was reported to be again growing.

Mr. ARNOTT asked if there was any difference in texture in the recurring tumour; he had noticed that the cells looked plumper in the secondary growth. This was also the case in the specimen exhibited.

Mr. WATSON also exhibited two other specimens of Ossific Deposit in the Eyeball. One occurred in the eye of a man, aged 30, whose eye had been destroyed long before, but had not been removed. Sympathetic ophthalmia made its appearance, and the diseased eyeball was then taken away; there was a bony deposit in the choroid; the lens was calcareous, and there was a deposit in the cornea. In the second, removed for the same cause, there was a slight deposit in the choroid, round the entrance of the optic nerve.

Dr. GREENHOW exhibited the Spinal Cord of a Patient who had suffered from Locomotor Ataxy. The man had been under his notice five years, and he was 57 at the time of his death. He had been epileptic in early life; fifteen years after his last attack he was seized with ataxy. He had pains in his limbs, and sensation was impaired, but a slight touch would induce something like a convulsive action. After death, his left kidney was found sacculated; his bladder thickened. The skull cap was thick, as was the arachnoid. The spinal cord seemed small; its posterior columns were replaced by a reticulated substance, and the walls of the vessels were thickened. There were no nerve fibres, but the nerve cells seemed normal. The antero-lateral columns were tolerably healthy, except at certain points. There were corpora amylaceæ, but no fatty change. The condition improved as the cord was traced upwards. The brain was healthy.

In reply to Dr. Bastian, it was stated that the olfactory nerves were not examined; and to the President, that the antecedent history was not absolutely accurately known.

Dr. DICKINSON had recently seen an example of the disease to a marked degree in a boy 2 years old. The child was a confirmed smoker, and had been accustomed to walk about with his father, smoking. He had been tested, and smoked a pipe of shag with relish.

Mr. HULKE said there was a form of atrophy of the optic disc said to be due to smoking tobacco.

Dr. CAYLEY said that, with regard to the analogy of this pathological condition to cirrhosis, there were no nuclear bodies in the cord, as in cirrhosis; there was rather a destruction of the axis cylinders alone. The local change was unequally distributed.

Mr. JAMES ADAMS exhibited for Mr. Champneys a curious Exostosis of the Cranial Bones, from a man, aged 49, who had died suddenly. He had been under observation for about fourteen years; latterly he was perfectly hideous. He begged in summer, and went to the workhouse in winter. The disease was mostly confined to one side, and the eye on that side protruded much. He was quite sensible to the time of his death. Having concluded a bargain that his Surgeon was to have his head after death, he absolutely refused ever after to take any medicine.

The same gentleman also showed a Tubercular Testicle. Its history was not given.

In reply to Mr. Hulke, it was stated that the cranial mass was merely covered by a periosteum.

Mr. ARNOTT also exhibited a specimen of Tubercular Testis, enlarged, nodulated, and cheesy. It was removed; the microscopic details were somewhat doubtful, as scrofulous and syphilitic deposits in certain stages seemed almost identical, especially with the fibroid condition of grey tubercle. This might break up and suppurate, or become cheesy or indurated.

Dr. W. OGLE exhibited the Lungs of a Porpoise, which seemed normal, except that in many parts there were hard nodules, which were supposed to be tubercular. They found, however, that the trachea and bronchi were absolutely filled with nematoid worms, and in each nodule a similar parasite was found. The heart was slightly bifurcated at the apex. This had been noticed in other aquatic mammals, particularly the dugong.

Mr. HULKE said the existence of these worms was known; he himself had often seen them.

Dr. EDWARD CRISP had never seen a porpoise without them. They were strongyli.

Dr. DICKINSON exhibited a specimen of Cystic Sarcoma affecting the lumbar glands. The symptoms resembled those of a renal tumour. The patient, a boy, aged 3, had a hernia at birth, and two lumps in his loins; but there was no very well-defined tumour till a few weeks before death. The hernial tumour was tapped, after which the abdominal mass was discovered. He sank rather suddenly. The mass lay behind the peritoneum and the gut. Some of the cysts seemed lined with muscular tissue. One cyst lay in the scrotum. The testis was not unnatural. One cyst had burst about a week before death,

and all over the abdomen where it had touched were little masses of spindle-celled sarcoma. (Referred to Committee.)

Dr. PAYNE said the condition was a very remarkable one. What evidence was there of connexion with the lymphatic glands? He thought it possible it might have arisen from fœtal structures existing in that situation, which ordinarily disappear after birth.

Dr. DICKINSON replied that the tumour was certainly in the site of the glands, and he could say nothing more. It was quite clear the tumour was congenital; possibly it might have begun while the testes were yet in the abdomen, and this would account for the mass in the scrotum being dragged down with them.

Dr. SUTTON showed for Mr. Champneys the body of a child supposed to be the subject of Congenital Small-pox. It had lived two days, and had on it a number of dark red spots and something like dried-up pustules, containing fat granules and irregular-looking bodies. The mother had not had small-pox.

Dr. MURCHISON said such cases were recorded, but were doubtful. Here scars were found on one part, pustules on another, which would show different stages of the malady; not so with small-pox. Nor in small-pox, as here, were there deposits in lungs and liver. It was true the small-pox might be a source of purulent infection.

Dr. BASTIAN pointed out the existence of cicatrices on the thighs. Referred to Drs. Murchison and Bastian.

NEW BOOKS, WITH SHORT CRITIQUES.

An Almanac for the Year of Our Lord 1871. By JOSEPH WHITAKER. London. Pp. 324.

*** This is very cheap at a shilling. In a small, but clear type, it contains an immense amount of information on those social, political, and scientific matters which are likely to interest every educated man. It is a fitting complement to a Medical diary. The Army, Navy, Church, Law, Universities, Acts of Parliament, Postal Regulations, Eclipses and Astronomy, Royal Families, Life Assurance, Prisons, Imports, Exports, Racing, Religion, are the titles of but a fractional portion of its clearly condensed intelligence.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, December 22, 1870:—

Deane, Robert Edmund, Batley, Yorkshire.
Evans, Ernest Richard, Evelina Hospital, S.E.
Hughes, Evan Thomas, Anglesea.
Longhurst, Alex. Keene, Farnham, Surrey.
Netherclift, Wm. Henry, Whitchurch, Hants.
Wykes, Edwin, Birmingham.

As Assistants in Compounding and Dispensing Medicines:—

Brown, James, Rugby.
Chitty, Frederick, Titchfield, Hants.
Hackett, John Henry, Tallington, Stamford.
Spong, Douglas Morton, Biggleswade.
Wilkes, John Sanders, Leicester.
Woolstencroft, Joseph, Northwich, Cheshire.

The following gentlemen also on the same day passed their First Professional Examination:—

De Lisle, Frederick Irving, Guy's Hospital.
Elliot, Norman Bruce, Guy's Hospital.
Kindon, Joseph, Guy's Hospital.
Lithgow, Robt. Alexander, Guy's Hospital.
Llewellin, Geo. Joseph, Guy's Hospital.
Penkivil, John Hughes, St. Bartholomew's Hospital.
Renton, William, Leeds Hospital.
Spencer, Francis Henry, King's College Hospital.
Ward, Walter Alfred, St. Bartholomew's Hospital.
Whitington, Chas. Edward, Guy's Hospital.
Younger, Edward George, Guy's Hospital.

MILITARY APPOINTMENTS.

ROYAL ARTILLERY.—Staff Assistant-Surgeon James Lane Notter, M.B., to be Assistant-Surgeon, *vice* Alexander Crawford Robertson, M.D., promoted.

86TH FOOT.—Staff Surgeon Walter Leach to be Surgeon, *vice* John Vernon Seddall, M.D., deceased.

MEDICAL DEPARTMENT.—Surgeon Donald Sinclair Smith, from the 4th Hussars, to be Staff Surgeon, *vice* Charles Moore Jessop, appointed to the 4th Hussars; Assistant-Surgeon Alexander Crawford Robertson, M.D., from the Royal Artillery, to be Staff Surgeon, *vice* Walter Leach, appointed to the 86th Foot.

BIRTHS.

FOWLER.—On November 8, at St. Helena, the wife of Charles H. Fowler, colonial Surgeon, of a son.

STRANGE.—On December 26, at 13, Belsize-avenue, Belsize-park, the wife of W. Heath Strange, M.D., of a daughter.

THURSFIELD.—On December 25, at Leamington, the wife of T. W. Thursfield, M.D., of a son.

MARRIAGES.

LEWIS—KEY.—On December 15, at St. James's Church, William Bevan Lewis, L.R.C.P. Lond., etc., Resident Medical Officer to the Rotherham Dispensary, to Rose Eva, eldest daughter of Charles Key, Esq., of Mandeville-road, London. No cards.

MILLER—STUCKEY.—On November 2, at Trinity Church, Adelaide, South Australia, Andrew Miller, M.D., M.R.C.S., to Agnes Madeline, daughter of the late Henry Stuckey, Esq., and step-daughter of E. W. Wright, Esq., of Home-park, Magill.

SAGAR—FILKIN.—On December 26, at St. George's Church, Leeds, Thomas Henry Sagar, only son of Thomas Foster Sagar, Surgeon, Leeds, to Lilly Eliza Avon, daughter of William Filkin, late of Birmingham.

WHITEHOUSE—BLAND.—On December 19, at St. Luke's, New Kentish-town, James, only son of the late Robert Whitehouse, Esq., of H.M. War Office, to Beatrice Annie, daughter of the late Henry Bland, M.D., of Callao, South Australia.

DEATHS.

BANON, RICHARD G. D., Inspector-General of Hospitals, at Upham, on December 22, aged 54.

CALDELEUGH, Dr. T., L.R.C.P., M.R.C.S., L.S.A., at No. 1, Queen's-crescent, Haverstock-hill, on December 27, aged 47. Friends will kindly accept this intimation.

COOHLAN, JOHN JOSEPH, M.D., at 81, Clarendon-road, Notting-hill, on December 26, aged 43.

COLEMAN, EDMUND WALTER, M.D., M.R.C.S.E., F.A.S.L., retired Assistant-Surgeon R.N., at the residence of his father-in-law, Royal Hospital, Haslar, on Christmas-eve, of phthisis, aged 32.

DIPLOCK, MARIAN FRANCES, youngest daughter of Thomas Bramah Diplock, M.D., at Western House, Oakley-square, Chelsea, on December 23, aged 4 years.

GRIFFITH, R. JENKINS, M.D., late of Yokohama, Japan, on December 13, at Priory-street, Cardigan.

HEATH, SARAH, the dearly-loved wife of Christopher Heath, Esq., of 9, Cavendish-place, London, W., on December 25, the day after her 31st birthday.

JONES, ALFRED BARROW, M.R.C.S.E., L.D.S., of 35, Brook-street, Grosvenor-square, on December 26, after a long illness, aged 43.

PRANCE, CATHERINE, the beloved wife of C. R. Prance, M.D., at 18, Princess-square, Plymouth, on December 20, aged 34.

RICHARDS, SARAH BOWEN, the wife of William Moseley Richards, Surgeon, at Brimley-villas, Teignmouth, on December 26, suddenly.

SWINEY, JOHN, M.D., late Member of the Medical Board of India, at his residence, Westall-house, Cheltenham, in his 88th year, on December 24.

TIDY, WILLIAM CALLENDER, M.D., at his residence, the Hollies, Cambridge-heath, Hackney, on December 25, aged 72.

VERCHERE, FRANCES, the dearly-beloved wife of Dr. Albert M. Verchere, Surgeon-Major of 1st Bengal Infantry, Barrackpore, and the only and dearly-loved daughter of John Edward Turner, Esq., Waterden-place, Guildford, at Calcutta, on November 24.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ALDERBURY UNION.—Medical Officer for the third district of this Union. Candidates must be duly qualified and registered. Applications and testimonials to T. Jesse, Esq., Clerk to the Guardians, Bedwin-street, Salisbury, on or before January 5, 1871. Election on the 6th.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Physician; must have a degree from one of the universities recognised by the General Medical Council, and be a Fellow or Member of the Royal College of Physicians of London. The office of Assistant-Surgeon is also vacant. Candidates must be Fellows of the Royal College of Surgeons of England, not practising pharmacy or midwifery. Applications and testimonials to Henry Wooleott, Esq., Secretary, on or before January 10, 1871.

COUNTY DOWN INFIRMARY AND FEVER HOSPITAL.—Resident Registrar and Surgeon's Assistant; must be duly qualified and registered. Applications and testimonials to James Simms, Esq., Registrar, on or before January 10, 1871.

EAST WARD UNION.—Medical Officer for the Workhouse at Kirkby Stephen. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board, and be registered. Applications and testimonials to John Whitehead, Esq., Clerk to the Guardians, Appleby, on or before January 14, election on the 16th inst.

FEVER HOSPITAL AND HOUSE OF RECOVERY, CORK-STREET.—Temporary Physician. Applications and testimonials to J. F. Eustace, Esq., Registrar, on or before January 4.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistant; must have a Medical qualification; Applications and testimonials to the Hon. Sec. on or before Dec. 31.

MIDDLESEX HOSPITAL.—Medical Registrar and Superintendent of Medical Post-mortem Examinations; candidates must be either Bachelors or Doctors of Medicine of one of the Universities of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London. Applications and testimonials to the Medical Committee on or before the 31st inst., at 12 o'clock noon.

MIDDLESEX HOSPITAL.—Resident Obstetric Assistant; must hold a legal qualification. Applications and testimonials to the Secretary on or before December 31.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—House-Surgeon, must be duly qualified. Applications and testimonials to Mr. R. F. Easterley, Secretary, on or before January 2 next. The duties will commence on February 7.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.—Medical Officer; must be F. or M.R.C.P. Lond., or M.R.C.S. Eng. Applications and testimonials to A. S. Boodle, Esq., Secretary, at the Hospital, Marylebone-road, on or before January 2.

ROYAL SURREY COUNTY HOSPITAL.—Honorary Medical Officer. Applications and testimonials to the Hon. Sec., the Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before February 23, 1871.

Salop Infirmary, Shrewsbury.—Dispenser; a Member of the Pharmaceutical Society preferred. Applications and testimonials to the Chairman on or before December 31.

Stamford, Rutland, and General Infirmary.—House-Surgeon, Apothecary, and Secretary; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Chairman of the Committee of Management on or before December 31.

University of Durham, College of Medicine, Newcastle-on-Tyne.—Medical tutor. Applications and copies of testimonials to Mr. Luke Armstrong. The duties will commence after the Christmas vacation.

West Kent General Hospital, Maidstone.—Resident House-Surgeon; must have some legally recognised qualification, and be registered. Applications and testimonials to Mr. Holmes, 16, Knightrider-street, Maidstone, on or before January 3, 1871.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

East Ward Union.—Mr. Thomas Sayer has resigned the Workhouse; salary £20 per annum.

Stourbridge Union.—Mr. John Ireland has resigned the Workhouse; salary, £70 per annum.

APPOINTMENTS.

Keighley Union.—Douglas Glendinning, M.D. Univ. Edin., L.R.C.S. Edin., to the Bingley District.

Manchester Township.—George R. Brebner, M.B. and M.C. Univ. Edin., as Assistant Medical Officer at the New Workhouse.

North Witchford Union.—James M. Wilson, M.B. and M.C. Univ. Glas., to the Fourth District.

Portsea Island Union.—John P. Way, M.R.C.S. Eng., L.S.A., to the Landport District.

The annual meeting of the Obstetrical Society of London will be held on Wednesday, January 4 next, at eight o'clock p.m. At the meeting in question, a ballot for the election of Officers and other Members of the Council, for the year 1871, will take place; the reports of the auditors and Librarian will be read, and the President will deliver the annual address. The following is the balloting list recommended by the Council:—*Honorary President:* Sir Charles Locock, Bart., M.D. *President:* John Braxton Hicks, M.D., F.R.S. *Vice-Presidents:* Henry Gervis, M.D.; Constantine Holman, M.D. (Reigate); J. Charles Langmore, M.B., F.R.C.S.; Gustavus C. P. Murray, M.D.; David Lloyd Roberts, M.D. (Manchester); John Scott, F.R.C.S. *Treasurer:* Edward John Tilt, M.D. *Honorary Secretaries:* W. S. Playfair, M.D.; J. J. Phillips, M.D. *Honorary Librarian:* Alfred Wiltshire, M.D. *Honorary Members of Council:* William Tyler Smith, M.D.; Henry Oldham, M.D.; Robert Barnes, M.D.; John Hall Davis, M.D.; Graily Hewitt, M.D. *Other Members of Council:* John Brunton, M.D.; Edward Copeman, M.D. (Norwich); J. Brendon Curgenven, M.R.C.S.; George Gaskoin, M.R.C.S.; Samuel Day Goss, M.D.; Thomas Taylor Griffith, F.R.C.S. (Wrexham); Edward Head, M.B.; Jonathan Hutchinson, F.R.C.S.; William Edmund Image, F.R.C.S. (Bury St. Edmunds); Draper Mackinder, M.D. (Gainsborough); Adolphus A. F. Rasch, M.D.; William Richard Rogers, M.D.; Henry Savage, M.D.; William Johnson Smith, M.D. (Weymouth); Leonard William Sedgwick, M.D.; Charles Taylor, M.D.; Henry Wilson Sharpin, F.R.C.S. (Bedford); Arthur Wynn Williams, M.D.

A special meeting of the Governors of the Islo of Wight Royal Infirmary was held on Wednesday last, the 21st inst., when Dr. Jeeson, of Bonchurch, was elected Consulting Physician to the Infirmary, in the place of Dr. MacLachlan, deceased. At the same meeting the number of Medical officers was increased from four to five. The in-patients to be assigned to the three seniors, the out- to two juniors, who were to have a bed always at their command for operations. These alterations were made to meet the increasing number of out-patients, which became a great tax upon the Practitioner in active practice.

Adulteration of Bread.—On Saturday last, a man named James Cope was fined £5, by the Bolton magistrates, for adulterating his bread with alum.

New Medical Periodical.—Messrs. Baillière, Tindall, and Cox announce a new monthly review of Medical practice and literature, for publication at the beginning of the year under the title of *The Doctor*.

Fine for not Disinfecting a Cab.—A cabman has been fined 40s for not disinfecting a cab after he had conveyed a passenger suffering from small-pox.

Sale of Unsound Meat in Dublin.—The Corporation of Dublin, through its Committee, are taking vigorous steps for detecting and punishing the crime of selling unsound meat. Two flagrant cases came before the magistrates on Monday last, in one of which the defendants were detected preparing for sale a cow that had died of pleuro-pneumonia; and in another the *corpus delicti* was a pig in a most loathsome condition, it having died of a virulent disease called "soldier," analogous to typhus in the human subject.

NOTES, QUERIES, AND REPLIES.

"*Reminiscences of an Old Guy's Man*" shall appear immediately.

Dr. Sullivan's paper, on Yellow Fever at Havana, shall appear immediately.

The narrative of a French Ambulance Surgeon, now prisoner of war at Versailles, in our next, if possible.

A.—Dr. Ballard's paper on Impure Milk and Typhoid is published by Messrs. Churchill.

Dr. Harding, Waikounati, New Zealand.—Your letter and enclosure have arrived safely.

Erratum.—In our number for December 24, page 740, col. 1, line 3, *read* Dr. Cleveland *instead of* Cleaveland.

Vaticine.—We cannot inform you who the Helen Berkeley referred to in the book may be, nor can we give you fuller information as to her visit to Hahnemann than we have gleaned from Dr. Lory Marsh's book. You had better write to Dr. Marsh at the Medical Club.

Paris.—The *Times* of December 29 contains a message for Dr. Benjamin Ball, 32, Rue du Mont Thebor. Drs. Cormack and Shrimpton are active members of the Committee for Relieving Distressed British Subjects in Paris.

E. E.—You will find the question answered in a leading article on "Aloes." which appeared in the *Medical Times and Gazette*, January, 1868. We believe the thing lies in a nutshell. If you desire to empty the bowels of fæces, aloes will do the work; but if the bowels are already empty, and you give aloes, you produce straining, mucous discharge, and piles.

Will *Dr. Leeson* kindly send us his address.

Berkshire.—It is of no use to blame Providence, nor yet even to wonder at the mysterious dispensation by which we are often deprived of friends—young, charming, useful, just in the pride and flower of youth, and just when "a long career of usefulness" seemed open before them. The moral we would draw is, that if lives are valuable they should be taken care of. Why allow a young, highly-educated, and accomplished youth to risk his life on thin ice, with no ropes, ladders, boatmen, or other help at hand in case of accident? Why send some delicate and refined young Cambridge man as a missionary to some beastly tropical hole, where even a coarse, hardy man could scarcely live? Why does a student get on a horse which he knows nothing of, and break his neck? In all such cases it is not Providence, but ourselves, that are at fault. "Cœlum ipsum petimus stultitiâ." The more valuable a life, the more should it be protected from accidents.

An Old Student of Guy's is thanked for the communication, it shall be used at the proper time.

Nemo.—The fee can be recovered, provided evidence of the contract be forthcoming.

Emigrant will not be allowed to practise in Victoria until he has been duly registered in the Colonial Register.

M.B.—The subject for the Fothergillian Gold Medal of the Medical Society of London for March, 1872, is "On Croup." The essay must be sent in on or before November 1, 1871. Full particulars respecting the Medal may be obtained by application to the Registrar of the Society, 32A, George-street, Hanover-square.

The Permanganate Tests for Water.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you kindly permit me to offer a few short remarks relative to your mention of Professor Attfield's letter to the *Times* on the subject of sanitary water testing. Whatever may be the shortcomings of permanganate (Condy's fluid) for quantitative testing, as a qualitative test it reveals to the eye, in a way which admits of comparison with a standard, exactly the same foreign matters in water which Professor Attfield's olfactory test reveals to the nose with no standard beyond remembrance of a former nasal impression. Both methods are valuable only for the detection of putrescible, and not of sound, organic matter. The test by olfaction requires considerable time and a good and even practised nose, which many persons have not. The test by permanganate demands little time and an amount of eyesight which everyone possesses. I may add that water after treatment with Condy's Fluid is incapable of emitting a bad odour, which is a clear proof that all the putrescible matter present in it has thereby been oxidised and destroyed.

Dec. 28, 1870. I am, &c. H. B. Condy.

List of Cottage Hospitals.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel greatly obliged if you will kindly oblige me, with your usual readiness and kindness to querists, by a list of the Cottage Hospitals, of any note in England and Scotland. It is being contemplated to complete the building of the Swansea Hospital by a series of cottages, instead of a large palatial wing, as originally proposed. I am, therefore, very anxious to obtain every practical information possible on the subject.

Swansea, Dec. 24, 1870. I am, &c. T. D. G.

Berks.—Speen Cottage Hospital.
Bucks.—Iver Cottage Hospital.
Cheshire.—Wallasey Cottage Hospital.
Cornwall.—Fowey Cottage Hospital.
Derbyshire.—Wirksworth Cottage Hospital.

Essex.—Buckhurst-hill Village Hospital.
Gloucestershire.—Bourton-on-the-Water and Cotswold Village Hospital. Clearwell, Lady Dunraven's Cottage Hospital. Fairford Rural Hospital. Hambrook Village Hospital. Tethury Cottage Hospital. Tewkesbury Cottage Hospital.
Hampshire.—Bournemouth General Dispensary and Cottage Hospital. Fareham, Shedfield Cottage Hospital.
Herefordshire.—Bromyard Cottage Hospital. Royston Cottage Hospital.
Lincolnshire.—Market Rasen Dispensary and Cottage Hospital.
Norfolk.—Cromer Cottage Hospital. Ditchingham Cottage Hospital.
Northamptonshire.—King's Sutton Village Hospital.
Nottinghamshire.—Stapleford Village Infirmary and Dispensary. Wellow Hospital. Worksop Cottage Hospital.
Shropshire.—Burford, St. Mary's Cottage Hospital. Oswestry and Ellesmere Cottage Hospital.
Somersetshire.—Crewkerne Hospital. Wrington Village Hospital.
Staffordshire.—Longton Cottage Hospital. Rugeley Cottage Hospital. Walsall Cottage Hospital.
Surrey.—Capel Village Hospital. Cranleigh Village Hospital.
Sussex.—East Grinstead Cottage Hospital. Newick Cottage Hospital.
Wiltshire.—Downton Cottage Hospital. Savernake Cottage Hospital.
Worcestershire.—Malvern Rural Hospital.
Yorkshire.—Driffield Cottage Hospital. Harrogate Cottage Hospital. Middlesbrough Cottage Hospital.
Wales.—Carnarvooshire Dinorwic Hospital.
Merionethshire.—Festiniog, Oakley's Hospital.
Channel Islands.—Guernsey, Castle Hospital.

COMMUNICATIONS have been received from—
Dr. W. B. Lewis; Mr. A. O. Speedy; Mr. J. Shortt; Dr. J. Russell; Mr. A. C. Pope; Mr. D. Mathias; Dr. E. B. Gray; Dr. Miller; Dr. Lees; Mr. T. F. Sagar; Dr. Curran; Dr. Stothard; Mr. J. Kelsall; Mr. B. Barrow; T. D. G.; Mr. D. Hartley; Mr. G. M. Humphry; Dr. J. B. Curgenven; Mr. B. Condy; Mr. W. A. Richards; Mr. J. Warren; Dr. Ogle; Mr. J. Chatto.

BOOKS RECEIVED—
Nicholson's Manual of Zoology—Holmes's System of Surgery, vol. 4—Lectures upon Diseases of the Rectum. By Dr. W. H. Van Buren—Food Journal, January, 1871—An Essay on the Treatment of Aneurism. By B. Howard, A.M., M.D., of New York—Half-yearly Abstract of the Medical Sciences, vol. 52—Dr. Sayre (Philadelphia) on Partial Paralysis from Reflex Irritation.

NEWSPAPERS RECEIVED—
Nature—Pharmaceutical Journal—The Overland Ceylon Observer—The Leeds Mercury—Medical Press and Circular—New York Medical Gazette—Woodhull and Claflin's Weekly.

APPOINTMENTS FOR THE WEEK.

December 31. *Saturday* (*this day*).
Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.
Royal Institution, 3 p.m. Prof. Odling, "Burning and Unburning" (Juvenile Lectures).

January 2, 1871. *Monday*.
Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.
Medical Society of London, 8 p.m. Mr. Gay (President), "On Glanders in the Human Subject" (Illustrations of the Disease in the Horse, by Mr. Roalfe Cox). Dr. Thudichum, "Clinical Experiences of the War" (adjourned from December 19).

3. *Tuesday*.
Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.
Anthropological Society, 8 p.m. Meeting.
Pathological Society, 8 p.m. General Meeting for the Election of Officers. The following Specimens will be exhibited:—Dr. Heywood Smith, "Diseased Kidney." Dr. Hilton Fagge, "Dilatation of Stomach." Mr. Hulke, "Rodent Ulcer of Face; Sarcoma of Lower Jaw; Fibroma of Fascia Transversalis Abdominis." Dr. Murchison, "Renal Calculus concurring with the Passage of Gall-stones by a Biliary Fistula; Gall-stone passed by a Biliary Fistula; Mediastinal Tumour (Lymphadenoma)." Dr. Greenhow, "Sputa from Cases of Bronchitis in Operatives." Dr. Crisp, "Ulcer of Stomach; Cancer of Tongue," etc. Mr. James Adams, "Fracture of Head of Radius." Mr. Croft, "Popliteal Aneurism."
Royal Institution, 3 p.m. Prof. Odling, "Burning and Unburning" (Juvenile Lectures).
12, Hinde-street, W., 5 p.m. Lectures on Experimental and Practical Medicine, by Dr. B. W. Richardson, F.R.S.

4. *Wednesday*.
Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's 1½ p.m.; Ophthalmic, Southwark, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.
Obstetrical Society, 8 p.m. Dr. C. Kidd, "On Chloral Hydrate and Chloroform in Obstetric Practice." Dr. W. S. Playfair, "On Irritable Bladder in the Latter Months of Pregnancy." 9 p.m.: Annual Meeting, Ballot for Officers, and President's Address.

5. *Thursday*.
Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.
Royal Institution, 3 p.m. Prof. Odling, "Burning and Unburning" (Juvenile Lectures).

6. *Friday*.
Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.
Medical Society of London, 8 p.m. Meeting of Council.

VITAL STATISTICS OF LONDON.
Week ending Saturday, December 24, 1870.

BIRTHS.
Births of Boys, 1042; Girls, 1041; Total, 2083.
Average of 10 corresponding weeks, 1860-69, 1699·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	705	672	1377
Average of the ten years 1860-69	696·4	698·3	1394.7
Average corrected to increased population	...	...	1535
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	7	8	17	1	10	1	7	2	2
North ...	618210	20	2	27	1	6	8	7	1	...
Central ...	383321	9	2	9	...	2	3	3	2	3
East	571158	38	5	15	2	7	3	4	2	3
South	773175	8	8	36	2	8	1	9	5	1
Total	2803989	82	25	104	6	33	16	30	12	9

METEOROLOGY.
From Observations at the Greenwich Observatory.

Mean height of barometer	29·682 in.
Mean temperature	33·0°
Highest point of thermometer	50·9°
Lowest point of thermometer	15·3°
Mean dew-point temperature	26·9°
General direction of wind	variable
Whole amount of rain in the week	0·17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 24, 1870, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1870.	Persons to an Acre. (1870.)	Births Registered during the week ending Dec. 24.	Deaths Registered during the week ending Dec. 24.	Temperatnre of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3214707	41·2	2083	1377	50·9	15·3	33·0	0·56	0·17	0·43
Portsmouth ...	122084	12·8	61	40	51·2	15·4	33·8	1·01	0·05	0·13
Norwich	81087	10·9	45	38	50·0	8·5	31·2	−0·45	1·25	3·18
Bristol	171382	36·6	97	79	...	...	...	...	...	...
Wolverhampton ...	72990	21·5	50	27	51·6	12·9	30·9	−0·61	1·00	2·54
Birmingham ...	369604	47·2	235	150	51·6	10·8	32·6	0·34	0·63	1·60
Leicester	97427	30·4	54	54	51·2	9·0	30·5	−0·83	1·06	2·63
Nottingham ...	88888	44·5	51	28	50·9	10·7	32·5	0·28	0·60	1·52
Liverpool	517567	101·3	312	434	49·8	18·2	32·6	0·34	0·86	2·18
Manchester ...	374993	83·6	227	189	...	...	...	...	...	...
Salford	121580	23·5	75	53	51·5	12·2	30·6	−0·78	1·03	2·62
Bradford	143197	21·7	114	74	53·0	16·6	32·1	0.06	0·20	0·51
Leeds	259527	12·0	156	133	52·0	19·0	35·6	2·01	0·49	1·25
Sheffield	247378	10·8	208	108	51·0	13·5	33·4	0·78	0·59	1·50
Hull	130869	36·7	80	51	...	...	...	...	...	..
Sunderland ...	100979	30·5	78	43	...	...	...	...	...	...
Newcastle-on-Tyne	133367	25·0	97	64	...	...	...	...	...	...
Edinburgh	178970	40·4	135	105	50·7	16·0	35·2	2·78	0·00	0·00
Glasgow	468189	92·5	341	312	50·6	15·1	33·3	0·72	0·43	1·10
Dublin (City, etc.*)	321540	33·0	162	170	52·0	16·0	34·5	1·39	...	...
Total of 20 Towns in United Kingd'm	7216325	33·8	4661	3529	53·0	8·5	32·8	0·45	0·60	1·52
Paris—Week ending Dec. 24	1889842	98	...	...	...	...	...	...	...	...
Vienna—Week ending Dec. 17 ...	622087	68	...	344	...	...	35·2	1·75	...	...
Berlin—Week ending Dec. 22 ...	800000	52	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·682 in. The highest barometrical reading was 29·96 in. at the beginning of the week, and the lowest was 29·41 in. on Monday.
The general direction of the wind was variable.
Note.—The population of Cities and Boroughs in 1870 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* Inclusive of some suburbs.

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